

ELECTRICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

STANDARD MOUNTING HEIGHTS		ANNOTATION
AUDIBLE APPLIANCES (CENTERLINE)	84"	MECHANICAL OR FIRE PROTECTION PLAN NOTE CALLOUT
ALARMS	48"	PLUMBING PLAN NOTE CALLOUT
ANNUNCIATOR PANELS (DISPLAY) CONTROLS (TOP OF DEVICE)	48"	
EXIT SIGNS (WALL MOUNTED)	60"	
FIRE ALARM ANNUNCIATOR PANEL (DISPLAY)	60"	
FIRE ALARM BELL (EXTERIOR) (CENTERLINE)	120"	ELECTRICAL OR FIRE ALARM PLAN NOTE CALLOUT
FIRE ALARM CONTROL PANEL/UNIT (DISPLAY)	60"	
INTERCOM (AREA ONLY)	36"	
INTERCOMS (TOP OF DEVICE)	48"	TECHNOLOGY PLAN CALLOUT
FULL STATIONS (TOP OF DEVICE)	48"	
PHOTOCELLS	144"	
RECEPTABLES (EXTERIOR)	16"	PLUMBING EQUIPMENT DESIGNATION, (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES.
RECEPTABLES (GARAGES)	24"	
RECEPTABLES (POOLS)	27"	
RECEPTABLES (ABOVE COUNTER) 4" ABOVE BACKSPASH/COUNTER, 40" MAX	44"	EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
RECEPTABLES IN EQUIPMENT ROOMS	44"	
REMOTE INDICATING LIGHT (EQUIPMENT ROOMS)	44"	
REMOTE INDICATING LIGHT (FINISHED AREAS)	48"	
SAFETY SWITCHES (TOP OF DEVICE)	48"	
SWITCHES (TOP OF DEVICE)	48"	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
TELEPHONE, DATA OUTLETS	6"	
TELEPHONE TERMINAL BOARD (BOTTOM)	6"	
TELEVISION OUTLETS	84"	CONNECTION POINT OF NEW WORK TO EXISTING
VISIBLE APPLIANCES (CENTERLINE)	84"	
INSTALL OUTLET BOXES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.		
ABBREVIATIONS		CIRCUITING & WIRING
AF AMPERE FUSE SIZE	MCC MOTOR CONTROL CENTER	HOMERUN TO PANELBOARD, INFORMATION AT ARROWS ARE CIRCUIT NUMBERS AND PANELBOARD FOR TERMINATION. REFER TO PANELBOARD SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES.
AFB ABOVE FINISHED CEILING	MFR MANUFACTURER	
AFD ABOVE FINISHED FLOOR	MN MINIMUM	INDICATES RELAY NUMBER
AFG ABOVE FINISHED GRADE	MLO MAIN LUGS ONLY	
AHJ AUTHORITY HAVING JURISDICTION	MLV MAGNETIC LOW-VOLTAGE	CIRCUIT CONTINUATION OR PARTIAL CIRCUIT
AHU AIR HANDLING UNIT	MOC MAXIMUM OVERCURRENT PROTECTION	
AIC AMPERE INTERRUPTING CAPACITY	MTD MOUNTED	CONDUIT CONCEALED
AS AMPERE SWITCH SIZE	N/A NOT APPLICABLE	
AT AMPERE TRIP SETTING	NF NON-FUSED	CONDUIT CONCEALED (EMERGENCY)
ATS AUTOMATIC TRANSFER SWITCH	NL NOT LIGHT (24HR ON)	
AV AUDIO VISUAL	NRTL NATIONALLY RECOGNIZED TESTING LABORATORY	CONDUIT IN/UNDER FLOOR/GROUND CONSTRUCTION
BAS BUILDING AUTOMATION SYSTEM	QTY QUANTITY	
BKR BREAKER	RA RELOCATE	EXPOSED CONDUIT (EMERGENCY)
CAT CATEGORY	RCP RECEPTACLE	
CATV CABLE TELEVISION SYSTEM	REL REDUCED ENERGY LET-THRU	FLEXIBLE CONDUIT
CD CLOSED CIRCUIT TELEVISION	RLA RUNNING LOAD AMPS	
CD CANDELA	RTU ROOFTOP UNIT	LOW VOLTAGE CABLE (NOT ROUTED IN CONDUIT)
CKT CIRCUIT	SCCR SHORT-CIRCUIT CURRENT RATING	
CODE APPLICABLE CODE ADOPTED BY JURISDICTION	SD SMOKE DETECTOR	CONDUIT TURNING DOWN
CT CENTER	SE SINGLE-THROW	
CVD CUMULATIVE VOLTAGE DROP	SPOT SINGLE-POLE	CONDUIT TURNING UP
DEM DEMOLITION	SPDT SINGLE-POLE DOUBLE-THROW	
DPT DOUBLE-POLE	SSB SUPPLY-SIDE BONDING SYSTEM	CONNECTION POINT OR EQUIPMENT TERMINATION
DPST DOUBLE-THROW	ST SHUNT TRIP	
DPST DOUBLE-POLE	SWBD SWITCHBOARD	EQUIPMENT TERMINATION
ET/ETRX EXISTING TO REMAIN	SWGR SWITCHGEAR	
EC ELECTRICAL CONTRACTOR	TB TELECOMMUNICATIONS BONDING BACKBONE TO BE DETERMINED	CONDUCTOR TICK MARK LEGEND
EF EXHAUST FAN	TGB TELECOMMUNICATIONS GROUND BUS BAR	
EM EMERGENCY	TL TYPICAL	WHERE TICK MARKS ARE SHOWN, THE FOLLOWING SHALL GOVERN:
EMS ENERGY MANAGEMENT SYSTEM	UF UNDERFLOOR	
ELV ELECTRONIC LOW-VOLTAGE	UG UNDERGROUND	NOTE: HASH MARKS INDICATE QUANTITY OF CONDUCTORS
EWG ELECTRIC WATER COOLER	UIS UNDERSLAB	
FAC FIRE ALARM ANNUNCIATOR PANEL	UNO UNLESS NOTED OTHERWISE	EQUIPMENT GROUNDING CONDUCTOR IN CONDUIT (GREEN INSULATION OR BARE)
FACP FIRE ALARM CONTROL PANEL	UPS UNINTERRUPTIBLE POWER SUPPLY	
FCA FAULT CURRENT AMPS AVAILABLE	VD VOLTAGE DROP	ISOLATED GROUNDING CONDUCTOR IN CONDUIT (GREEN INSULATION WITH YELLOW TRACER)
FCU FAN COIL UNIT	VFD VARIABLE FREQUENCY DRIVE	
FL FINISHED FLOOR	VS VACUANCY SENSOR	BRANCH CIRCUIT CONDUCTOR TABLE
FLA FULL LOAD AMPS	W WIRE	
FLR FLOOR	WT WEATHER TIGHT	WHERE TICK MARKS ARE NOT SHOWN, THE FOLLOWING SHALL GOVERN:
GEC GENERAL CONTRACTOR GROUNDING ELECTRODE CONDUCTOR	WP WEATHER PROOF	
GES GROUNDING ELECTRODE SYSTEM	WR WEATHER RESISTANT	REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
GFR GROUND FAULT RELAY	XP EXPLOSION PROOF	
IG GROUND		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
IG ISOLATED GROUND		
ISC SHORT CIRCUIT CURRENT		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
JB-BOX JUNCTION BOX		
LF LINEAR FEET		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
LD LOCKED ROTOR AMPS		
LG LIGHTS		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
MAU MAKE-UP AIR UNIT		
MA MAXIMUM		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
MCA MINIMUM CIRCUIT AMPACITY		
MCB MAIN CIRCUIT BREAKER		REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.
LINETYPE LEGEND		
EXISTING	NEW	
DEMOLISH	FUTURE	

LIGHTING	
A a	LIGHT FIXTURE
a	a = LOWER CASE LETTER IS SWITCH IDENTIFIER
A	A = UPPER CASE LETTER INDICATES LIGHT FIXTURE TYPE
⊥	⊥ = WALL MOUNT
➤	➤ = ARROW INDICATED AIMING DIRECTION
⊗	LIGHT FIXTURE CIRCUTED AS A NIGHT LIGHT (NL)
⊗	EMERGENCY LIGHT FIXTURE WITH EMERGENCY LIGHTING BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
⊗	NIGHT LIGHT/EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
⊗	LIGHT FIXTURE WITH DUAL BALLASTS CIRCUITED SEPARATELY (SHADING IMPLIES EMERGENCY LIGHT FIXTURE)
⊗	LIGHTING TRACK (# INDICATES RELAY NUMBER)
⊗	MIRROR LIGHTS
⊗	EXTERIOR PARKING LOT LIGHT FIXTURE
⊗	EXTERIOR PEDESTRIAN POST TOP LIGHT FIXTURE
⊗	EXTERIOR LIT BOLLARD LIGHT
⊗	EXIT SIGN - CEILING / WALL MOUNTED, ARROWS AS INDICATED, FACE HATCHED
⊗	EMERGENCY LIGHTING UNIT EQUIPMENT WITH BATTERY PACK - CEILING/WALL MOUNTED
⊗	AREA (AREA FOR EVACUATION ASSISTANCE) SIGN - CEILING/WALL MOUNTED, ARROWS AS INDICATED
REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION	
POWER EQUIPMENT & DEVICES	
⊗	ELECTRICAL PANELBOARD (SURFACE OR FLUSH MOUNT)
⊗	ELECTRICAL CABINET (SURFACE OR FLUSH MOUNT), TYPE AS NOTED
⊗	PLYWOOD TERMINAL BOARD FOR TELEPHONE SYSTEM, UNO, SIZE AS NOTED
⊗	SWITCHBOARD OR MOTOR CONTROL CENTER ON HOUSEKEEPING PAD
⊗	ELECTRICAL DISTRIBUTION PANELBOARD
⊗	TRANSFORMER
⊗	DISCONNECT SWITCH - "200(3/150/3R)" DENOTES AMPERES/POLE/FUSE/NEMA STARTER SIZE/NEMA ENCLOSURE RATING, NF=NON-FUSED, CB=CIRCUIT BREAKER (200(3CB/1), NO VALUE (200(3/150) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 RATING
⊗	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER "30(3/15/10R)" DENOTES AMPERES/POLE/FUSE/NEMA STARTER SIZE/NEMA ENCLOSURE RATING, NF=NON-FUSED, CB=CIRCUIT BREAKER (30(3CB/1), NO VALUE (200(3/150) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 RATING
⊗	MAGNETIC MOTOR STARTER, NEMA SIZE AS NOTED, 3-POLE, UNO
⊗	VARIABLE FREQUENCY DRIVE
⊗	INDICATING LIGHT
⊗	EMERGENCY POWER OFF BUTTON
⊗	STOP-START PUSH BUTTON CONTROL STATION
⊗	HAND-OFF-AUTO PUSH BUTTON CONTROL STATION
⊗	MUSHROOM-TYPE PUSH BUTTON
⊗	OVERHEAD PADDLE FAN

BOXES, LIGHTING CONTROL & WIRING DEVICES	
⊗	SWITCH LETTER DESIGNATIONS AS FOLLOWS: BLANK = SINGLE 2 = TWO POLE 3 = THREE-POLE 4 = FOUR-WAY D = DIMMER F = FAN SPEED CONTROL FH = FRACTIONAL HORSEPOWER MANUAL CONTROLLER H = INTEGRAL HORSEPOWER MANUAL CONTROLLER K = KEVED LVB = LOW VOLTAGE / DIGITAL M = MANUAL MOTOR STARTER DISCONNECT OSW = OCCUPANCY SENSOR P = SPST PILOT LIGHT WP = WEATHER PROOF # = REFER TO LIGHTING CONTROL DEVICE SCHEDULE
⊗	AUTOMATIC LOAD CONTROL RELAY
⊗	BRANCH CIRCUIT TRANSFER SWITCH
⊗	CEILING / WALL MOUNTED OCCUPANCY SENSOR (# INDICATES TYPE PER SCHEDULE)
⊗	CORNER OR DEGREE SENSING ONE-DIRECTION SENSING, CEILING/WALL MOUNT CEILING MOUNT, TWO DIRECTION SENSING CEILING MOUNT, FOUR DIRECTION SENSING
⊗	CONTACTOR (SIZE, COIL VOLTAGE AND NUMBER OF POLES AS INDICATED)
⊗	TRACK-MOUNTED CURRENT LIMITER (## INDICATES AMPERAGE)
⊗	DAYLIGHT SENSOR (# INDICATES TYPE PER SCHEDULE)
⊗	LIGHTING CONTROLS PROCESSOR AND/OR EQUIPMENT
⊗	POWER PACK (# INDICATES TYPE PER SCHEDULE)
⊗	PHOTOELECTRIC SWITCH
⊗	ROOM CONTROLLER (# INDICATES TYPE PER SCHEDULE)
⊗	TIME SWITCH
⊗	EXTERIOR PHOTOCELL
⊗	ASTRONOMICAL TIME CLOCK
⊗	SIMPLEX RECEPTACLE - NEMA 5-20R, UNO
⊗	DUPLEX RECEPTACLE - NEMA 5-20R, UNO
⊗	DOUBLE DUPLEX RECEPTACLE - NEMA 5-20R, UNO
⊗	SPECIAL RECEPTACLE - NEMA TYPE AS NOTED
⊗	TWIST-LOCK TYPE RECEPTACLE
⊗	BLANK FACE GFCI FEED THROUGH DEVICE
⊗	GFCI TYPE RECEPTACLE*
⊗	ISOLATED GROUND TYPE RECEPTACLE*
⊗	EMERGENCY RECEPTACLE*
⊗	RECEPTACLE INSTALLED ABOVE COUNTER OR BACKSPASH*
⊗	RECEPTACLE INSTALLED IN CEILING*
⊗	RECEPTACLE INSTALLED IN FLOOR*
⊗	RECEPTACLE INSTALLED VIA DROP CORD*
⊗	RECEPTACLE LETTER DESIGNATIONS AS FOLLOWS: C = AUTOMATICALLY CONTROLLED CH = CLOCK HANGER TYPE G=RCPT PROTECTED BY GFCI CIRCUIT BREAKER OR UPSTREAM GFCI DEVICE H = HORIZONTALLY MOUNTED S = MANUALLY CONTROLLED SP / TVSS = SURGE PROTECTION TR = TAMPER RESISTANT TV = TELEVISION USB = USB/DUPLEX WP = WEATHER PROOF COVER WR = WEATHER RESISTANT
⊗	MULTI-OUTLET ASSEMBLY
⊗	TELEPHONE OUTLET
⊗	DATA OUTLET
⊗	MULTI-SERVICE OUTLET: TELEPHONE AND DATA
⊗	ABOVE COUNTER, TYP
⊗	WALL, TYP
⊗	FLOOR, TYP
⊗	MULTI-SERVICE POWER POLE WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
⊗	MULTI-SERVICE FLOOR BOX WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
⊗	POKE THROUGH, A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
⊗	THERMOSTAT
⊗	CEILING/FLOOR MOUNT JUNCTION/OUTLET BOX
⊗	WALL MOUNT JUNCTION/OUTLET BOX
⊗	TECHNOLOGY HANDHOLE REFER TO TECHNOLOGY SPECIFICATIONS
* SYMBOL DEMONSTRATED WITH DUPLEX RECEPTACLE, WHEN USED IN COMBINATION WITH OTHER DEVICES MEANING IS SIMILAR FOR THOSE DEVICE TYPES.	
REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR MORE INFORMATION.	

ELECTRICAL ONE-LINE & RISER DIAGRAM	
⊗	SWITCH (RATING AS INDICATED)
⊗	DRAWOUT CIRCUIT BREAKER (RATINGS AS INDICATED)
⊗	FUSED SWITCH (RATING, POLES AND FUSE TYPE AS INDICATED)
⊗	COMBINATION FUSED SWITCH/STARTER AND STARTER SIZE
⊗	CIRCUIT BREAKER (RATINGS AS INDICATED)
⊗	COMBINATION CIRCUIT BREAKER/STARTER AND STARTER SIZE
⊗	PANELBOARD, SINGLE OR MULTI-SECTION (REFER TO SCHEDULES)
⊗	TRANSFORMER (TYPE AND RATINGS AS INDICATED)
⊗	SHIELDED TRANSFORMER (TYPE AND RATINGS AS INDICATED)
⊗	AUTOMATIC TRANSFER SWITCH (RATINGS AS INDICATED)
⊗	AUTOMATIC TRANSFER SWITCH WITH BYPASS (RATINGS AS INDICATED)
⊗	GENERATOR (RATINGS AS INDICATED)
⊗	NON-SEPARATELY DERIVED SOURCE
⊗	SEPARATELY DERIVED SOURCE
⊗	SWITCHGEAR, SWITCHBOARD AND/OR DISTRIBUTION PANELBOARD (TYPE, RATING, DEVICES AND ACCESSORIES AS INDICATED)
⊗	COMBINATION DIGITAL VOLT METER/AMMETER
⊗	CIRCUIT IDENTIFICATION (REFER TO CIRCUIT SCHEDULE)
⊗	GROUND FAULT RELAY
⊗	PHASE FAILURE RELAY
⊗	KIRK-KEY INTERLOCK (# INDICATES KEY PAIR)
⊗	SHUNT TRIP
⊗	AMMETER (RANGE AS SPECIFIED OR REQUIRED)
⊗	VOLTMETER (RANGE AS SPECIFIED OR REQUIRED)
⊗	AMMETER SWITCH
⊗	VOLTMETER SWITCH
⊗	WATT-HOUR METER, "D" DENOTES DEMAND REGISTER, "15" DENOTES MINUTES OF DEMAND INTERVAL
⊗	CURRENT TRANSFORMER RATING AS SPECIFIED OR REQUIRED
⊗	POTENTIAL TRANSFORMER RATING AS SPECIFIED OR REQUIRED
⊗	SURGE-PROTECTIVE DEVICE
⊗	GROUND CONNECTION
⊗	GROUND CONNECTION WITH TEST WELL
⊗	GROUND ROD
⊗	LIGHTNING ARRESTER
⊗	CAPACITOR
⊗	CONTACT (OPEN OR CLOSED)
⊗	HEATER
⊗	MOTOR
⊗	BLOCK LOAD KW OR KVA
⊗	FAULT POINT REFERRED IN SHORT CIRCUIT CURRENT AND VOLTAGE DROP SPREADSHEET

LIGHTING SUPPLEMENTAL SPECIFICATIONS:	
1. REFER TO THE ARCHITECTURAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS, MOUNTING HEIGHTS, TRACK LENGTHS AND ADDITIONAL MOUNTING INFORMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT COORDINATION AND CONFLICT ISSUES ARE RESOLVED PRIOR TO INSTALLATION OF LIGHT FIXTURES. CONTACT ARCHITECT/ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES.	2. THROUGH WIRING OF RECESSED LIGHT FIXTURES, IN SUSPENDED CEILING, IS NOT PERMITTED. CONNECT EACH LIGHT FIXTURE BY A WHIP TO A JUNCTION BOX. PROVIDE CABLE WHIPS OF SUFFICIENT LENGTHS TO ALLOW FOR RELOCATING EACH LIGHT FIXTURE WITHIN A 5'-0" RADIUS OF ITS INDICATED LOCATION. CABLE WHIPS SHALL NOT EXCEED 6'-0" OF UNSUPPORTED LENGTHS.
3. ALL EMERGENCY LIGHTS AND EXIT SIGNS WITH INTEGRAL UNSWITCHED CONDUCTOR BYPASSING ALL OTHER CONTROLS AND CONTACTORS, UNLESS NOTED OTHERWISE, EXIT SIGNS SHALL NOT BE SWITCHED. REFER TO MANUFACTURER'S WRITTEN INSTRUCTIONS FOR PROPER INSTALLATION AND TESTING. ALLOW BATTERY TO CHARGE FOR A MINIMUM OF 48 HOURS BEFORE LIGHT LEVEL TESTING. IN ORDER TO PREVENT BATTERY DAMAGE, DO NOT TURN OFF POWER FOR EXTENDED PERIODS OF TIME AFTER EMERGENCY LIGHT HAS BEEN POWERED.	4. PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL MOUNTED LINE VOLTAGE LIGHT SWITCHES, UNLESS NOTED OTHERWISE. IF NEUTRAL TERMINATION IS NOT REQUIRED FOR THE DEVICE THEN CAP CONDUCTOR AND TAG AS "NEUTRAL FOR FUTURE USE".
5. COORDINATE ALL OCCUPANCY/VACANCY SENSOR SETTINGS WITH OWNER AND ADJUST AS NECESSARY FOR PROPER OPERATION. SETTINGS MUST COMPLY WITH AHJ AND LOCAL ENERGY CODE REQUIREMENTS.	6. DO NOT INSTALL OCCUPANCY/VACANCY SENSORS WITHIN 48" OF AIR DIFFUSER OR SIMILAR OBSTRUCTION THAT MAY ADVERSELY AFFECT THE SENSOR PERFORMANCE. COORDINATE FINAL SENSOR LOCATIONS WITH OTHER TRADES AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
LIGHTING GENERAL NOTES:	
1. THE EMERGENCY LIGHTING SYSTEM HAS BEEN DESIGNED TO PROVIDE AN INITIAL FLOOR ILLUMINANCE LEVEL OF 1 FC AVERAGE, 0.1 FC MINIMUM AND NO MORE THAN A 40:1 MAXIMUM RATIO ALONG THE EMERGENCY EGRESS PATHS, WHERE APPLICABLE. ADJUST AIMING OF EMERGENCY LIGHTS AS REQUIRED TO PROVIDE PROPER ILLUMINATION AT FLOOR AVOIDING OBSTACLES AND SHADOWS AFTER SET-UP IS COMPLETE.	2. WALL MOUNTED EXITS SIGNS SHALL BE MOUNTED 12" ABOVE DOOR FRAME AND CENTERED ABOVE DOOR OPENING. UNLESS NOTED OTHERWISE, CEILING/PENDANT MOUNTED EXITS SIGNS SHALL BE SUSPENDED TO 12'-0" AFF IN AREAS OPEN TO STRUCTURE, AT BOTTOM OF BAR JOISTS IN BACKROOM AREAS, AND ON FINISHED CEILING WHERE APPLICABLE, UNLESS NOTED OTHERWISE. EXITS SIGNS SHALL BE READILY VISIBLE FROM DIRECTION OF EGRESS TRAVEL. COORDINATE FINAL EXIT SIGN LOCATIONS WITH AHJ AND OWNER.
3. SUSPEND STORAGE AND RECEIVING AREA LIGHT FIXTURES AS HIGH AS PRACTICABLE IN ORDER TO AVOID DAMAGE, UNLESS NOTED OTHERWISE. SUSPEND JUST BELOW PIPING, DUCTWORK, AND SIMILAR OBSTRUCTIONS WHERE NECESSARY TO AVOID SHADOWS. COORDINATE REQUIREMENTS WITH OWNER AND OTHER DISCIPLINES PRIOR TO INSTALLATION.	4. PROVIDE LABEL AT EACH MANUAL LIGHT SWITCH INDICATING THE LIGHT FIXTURE(S) THAT THE SWITCH CONTROLS AND THE RESPECTIVE "PNLBD-CKT#" DESIGNATION. A SINGLE LIGHT SWITCH FOR A SMALL ROOM DOES NOT NEED TO INDICATE THE SPACE CONTROLLED SINCE IT IS INTUITIVELY OBVIOUS. COORDINATE LABEL REQUIREMENTS WITH THE OWNER PRIOR TO INSTALLATION. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
5. ALL REMOTELY LOCATED LIGHT FIXTURE POWER SUPPLIES SHALL BE LOCATED IN AN ACCESSIBLE LOCATION WITH PROPER VENTILATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE REMOTE VENTILATION AND REAL WIRING FROM VIEW, PROVIDE ENCLOSURE IF REQUIRED. COORDINATE LOCATION AND ENCLOSURE TYPE WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.	

COMMISSIONING / FUNCTIONAL TESTING:	
1. PROVIDE NECESSARY BOXES, CONDUIT AND MAKE FINAL CONNECTIONS TO TEMPERATURE CONTROL DEVICES PER MANUFACTURER'S RECOMMENDATIONS. THIS INCLUDES BUT IS NOT LIMITED TO: MAIN CONTROL PANELS, THERMOSTATS, HUMIDISTATS, AC SOLENOIDS, HEAT RECLAIM WIRING, AHJ CONTROL WIRING, DUCT FURNACE CONTROL WIRING, TIMERS, AND SIMILAR CONTROLS. PROVIDE CONDUIT FOR ALL WIRING WITHIN WALLS. PROVIDE CONTROL AND INTERLOCK WIRING WHEN NOT PROVIDED BY OTHER TRADES. COORDINATE REQUIREMENTS WITH EQUIPMENT SUPPLIERS AND OTHER TRADES PRIOR TO ROUGH-IN.	2. PROVIDE LINE VOLTAGE WIRING AND MAKE FINAL CONNECTIONS TO ALL DUCT-MOUNTED SMOKE DETECTORS, FIRE/SMOKE AND SMOKE DAMPERS WHERE APPLICABLE. COORDINATE REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.
3. DEVICES MOUNTED ON ACoustical TILE CEILINGS SHALL BE CENTERED ON THE TILE, UNO.	4. PROVIDE BOX AND 3/4" CONDUIT, AT A MINIMUM, FROM EACH THERMOSTAT LOCATION TO MECHANICAL EQUIPMENT (FLUSH MOUNT BOX WHEREVER PRACTICABLE). COORDINATE LOCATION OF ALL THERMOSTAT BOXES WITH MECHANICAL/CONTROLS CONTRACTOR AND OWNER PRIOR TO ROUGH-IN.
5. PROVIDE BOXES AND CONDUITS FOR THE FIRE PROTECTION SYSTEM LOW VOLTAGE WIRING AS REQUIRED. THIS INCLUDES EXPOSED WIRING LESS THAN 98" AFF, AT A MINIMUM, PROVIDE 3/4" CONDUIT, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER AND FIRE ALARM SPECIFICATIONS.	6. AT A MINIMUM, PROVIDE EXTRA DEEP, DOUBLE GANG, COMMUNICATION OUTLET BOXES, (FLUSH MOUNTED WHEREVER PRACTICABLE), WITH SINGLE-GANG PLASTER RING AND 1" CONDUIT STUBBED-UP CONCEALED TO ACCESSIBLE CEILING SPACE, UNLESS NOTED OTHERWISE. PROVIDE SURFACE MOUNTED DATA BOXES WITHIN CABINETS, AND SELECT OTHER LOCATIONS AS INDICATED ON THE DRAWINGS. COORDINATE TELEPHONE DATA BOX AND CONDUIT LOCATIONS AND SIZES WITH OWNER AND OTHER TRADES PRIOR TO ROUGH-IN.
7. PROVIDE NYLON BUSHINGS FOR ALL COMMUNICATIONS AND LOW VOLTAGE WIRING CONDUITS AND SLEEVES, UNLESS NOTED OTHERWISE.	8. ALL COMMUNICATIONS AND LOW VOLTAGE WIRING CONDUIT SHALL BE INSTALLED WITH AN ACCESSIBLE PULLBOX BETWEEN EVERY 100' OF CHANGE IN DIRECTION AND AT 100' INTERVALS OF CONTINUOUS RUNS.
9. MINIMUM BEND RADIUS FOR COMMUNICATIONS CONDUIT IS 6 TIMES THE INSIDE DIAMETER FOR CONDUITS 2" IN DIAMETER AND SMALLER AND 10 TIMES THE INSIDE DIAMETER FOR CONDUITS GREATER THAN 2" IN DIAMETER, UNLESS NOTED OTHERWISE.	10. LOW VOLTAGE COMMUNICATION, ENERGY MANAGEMENT, SOUND SYSTEM, SECURITY AND RELATED WIRING IS TO BE PERFORMED BY OTHERS UNDER A SEPARATE CONTRACT, UNLESS NOTED OTHERWISE. PROVIDE BOXES AND CONDUIT IN FINISHED AND RATED FLOORS/WALLS/CEILINGS TO ACCESSIBLE LOCATIONS FOR ALL LOW VOLTAGE WIRING. PROVIDE ALL LINE VOLTAGE CIRCUITRY (120V AND HIGHER) TO OWNER FURNISHED EQUIPMENT AND LOW VOLTAGE STEP-DOWN TRANSFORMERS AS REQUIRED. COORDINATE ELECTRICAL REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER AND OWNER.
11. ALL LOW VOLTAGE CLASS 2 OR 3 WIRING NOT IN CONDUIT SHALL BE PLENUM RATED WHERE APPLICABLE.	12. LOW VOLTAGE CABLE SHEATH LABELS AND RELATED MANUFACTURER INFO SHALL REMAIN APPARENT IN ALL EXPOSED APPLICATIONS. PROTECT ALL EXPOSED CABLING FROM PAINTING AND OVERSPRAY (INCLUDES CABLE NOT ROUTED IN CONDUIT AND THAT IS IN CABLE TRAY).
13. CABLES SHALL BE ROUTED THROUGH THE BUILDING CABLE TRAY/RACEWAY SYSTEM UNLESS NOTED OTHERWISE. EXPOSED CABLING SHALL NOT BE ROUTED IN AREAS EXPOSED TO STRUCTURE UNLESS SPECIFICALLY PERMITTED BY THE OWNER. IN AREAS WHERE EXPOSED CABLES ARE ALLOWED, IT SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS, WHERE REQUIRED, PROVIDE CONDUIT TO ROUTE LOW VOLTAGE CABLING TO THE CABLE TRAY OR NEAREST ACCESSIBLE CEILING SPACE.	14. CONDUITS FOR COMMUNICATIONS OUTLETS SERVING ELEVATOR EQUIPMENT ROOMS, FAC, AND SIMILAR CRITICAL EQUIPMENT AS DESIGNATED BY THE OWNER SHALL BE CONTINUOUS ("HOMERUN") FROM OUTLET TO SERVING COMMUNICATIONS ROOM.
APPLICABLE ELECTRICAL CODES:	
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE, (NFPA 70)	
BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE, (IRC)	
ENERGY CODE: NONE	
15. PROVIDE TAMPER-RESISTANT (TR) TYPE RECEPTABLES AT ALL CODE REQUIRED LOCATIONS AND AT LOCATIONS WHERE RECEPTABLES ARE MOUNTED LESS THAN 5'-0" AFF AND ARE EASILY ACCESSIBLE BY CHILDREN, UNLESS NOTED OTHERWISE.	16. FLEXIBLE CONDUIT IS ONLY PERMITTED WHERE SPECIFICALLY ALLOWED IN THE CONSTRUCTION DOCUMENTS, WHERE CONCEALED FROM VIEW OR EXPOSED FINAL CONNECTIONS TO LIGHT FIXTURES AND EQUIPMENT IN LENGTHS OF 6'-0" OR LESS.
17. ALL EMPTY CONDUIT/RACEWAY SHALL BE INSTALLED WITH PULL STRINGS. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.	18. EXPOSED CONDUIT/RACEWAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
19. CONDUITS/RACEWAYS SHALL BE CONCEALED FROM VIEW WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. ROUTE CONDUITS SERVING ROOFTOP EQUIPMENT CONCEALED INSIDE EQUIPMENT CURB AND MINIMIZE ROOF PENETRATIONS AND EXTERIOR CONDUIT RUNS WHERE PRACTICABLE. SUPPORT RACEWAY FROM STRUCTURE, NOT ROOF DECK. MAINTAIN 2" MIN SPACING FROM BOTTOM OF ROOF DECK TO PREVENT ROOFING SCREWS FROM PENETRATING RACEWAY. DO NOT ROUTE CONDUITS ACROSS SKYLIGHTS, ACCESS PANELS, HATCHED TILES, HVAC DIFFUSERS, OR EQUIPMENT WORKING CLEARANCE SPACE. ROUTE ALL EXPOSED NON-FLEXIBLE CONDUITS TIGHT TO STRUCTURE, PARALLEL TO BUILDING LINES AND IN STRUT OR CABLE/PPIPE TRAY WHERE PRACTICABLE. INSTALL CONDUITS PLUMB/LEVEL WHERE EXPOSED TO VIEW. COORDINATE RACEWAY ROUTING AND INSTALLATION WITH OTHER TRADES PRIOR TO ROUGH-IN.	20. WHERE PRACTICABLE, ALL UNDER-FLOOR/UNDER-GROUND CONDUITS/RACEWAY SHALL BE INSTALLED A MINIMUM OF 4" BELOW BOTTOM OF SLAB/PAVING/GRADE, UNLESS NOTED OTHERWISE. NOTE: THE DESIGN INTENT FOR INSTALLING ELECTRICAL CIRCUITRY AT THIS DEPTH IS TO PROTECT THE ELECTRICAL CIRCUITRY FROM DAMAGE DUE TO FUTURE WORK.
21. PROVIDE LABEL AT EACH RECEPTACLE COVER PLATE WITH THE RESPECTIVE "PNLBD-CKT#" DESIGNATION. COORDINATE LABEL REQUIREMENTS WITH THE OWNER PRIOR TO INSTALLATION. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.	22. MULTIWIRE BRANCH CIRCUITS ARE NOT ALLOWED, UNLESS NOTED OTHERWISE.
23. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR ALL CIRCUITS, UNLESS NOTED OTHERWISE.	

RELEASE FOR CONSTRUCTION AS NOTED ON DRAWING. DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

12/09/2020

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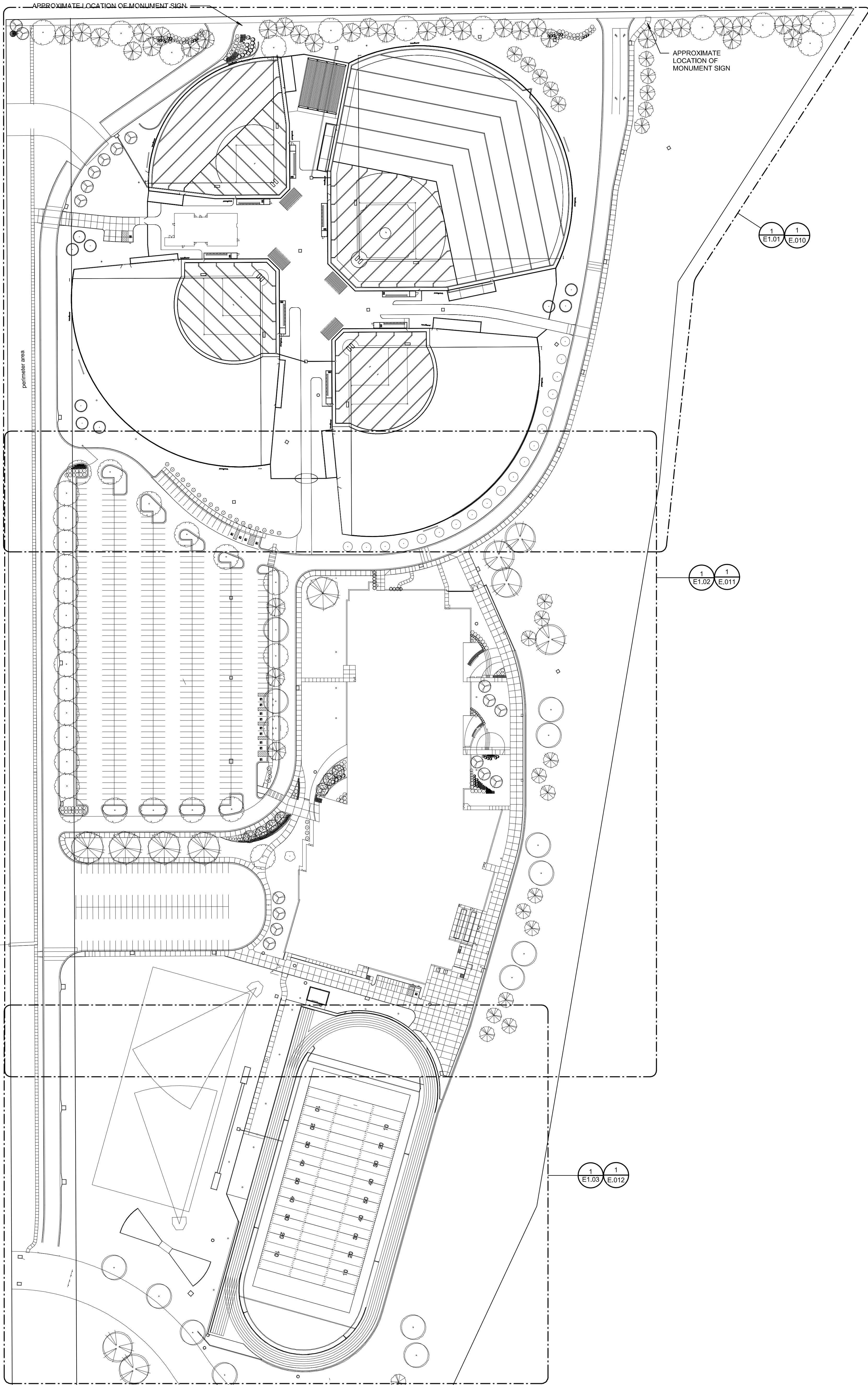
CURTIS A. OLDS
PROFESSIONAL ENGINEER
NUMBER: PE-2018036640
EXPIRES: 12/31/2020

Lee's Summit Middle School #4
LEE'S SUMMIT R-7 SCHOOL DISTRICT
1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS
ADDENDUM 001 10/13/20
ADDENDUM 002 10/19/20

ELECTRICAL GENERAL NOTES AND LEGEND

E0.1



1 ELECTRICAL SITE PLAN - OVERALL
1" = 80'-0"

SITE ELECTRICAL GENERAL NOTES:

1. REFER TO CIVIL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE THE FINAL LOCATION OF ALL SITE LIGHTING POLES, SIGNAGE, UNDERGROUND UTILITIES, CONDUITS, CIRCUITRY, TRANSFORMERS AND OTHER EQUIPMENT WITH CIVIL DRAWINGS, LANDSCAPING DRAWINGS AND OWNER PRIOR TO INSTALLATION.
2. COORDINATE ALL SITE ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER INFORMATION AND OTHER TRADES AND ADJUST ELECTRICAL PROVISIONS AS REQUIRED TO MEET REQUIREMENTS.
3. SITE ELECTRICAL CONDUITS SHALL BE 1" MINIMUM, UNLESS NOTED OTHERWISE. WHERE PRACTICABLE, ALL SITE ELECTRICAL CONDUITS SHALL BE INSTALLED A MINIMUM OF 24" BELOW GRADE, UNLESS NOTED OTHERWISE. COORDINATE FINAL CONDUIT ROUTING WITH EXISTING OBSTRUCTIONS AND OTHER TRADES AND ADJUST AS NECESSARY.
4. CAP AND MARK ALL UNDERGROUND CONDUITS PROVIDED FOR FUTURE USE AND INCLUDE PULL STRINGS. PROVIDE DIMENSIONED LOCATIONS OF TERMINATION POINTS ON AS-BUILT DRAWINGS AND SUBMIT TO OWNER.
5. MINIMUM WIRE SIZE FOR SITE ELECTRICAL CIRCUITS SHALL BE #10 AWG CU, UNLESS NOTED OTHERWISE. ALL SITE ELECTRICAL BRANCH CIRCUIT WIRING SHALL BE SIZED SUCH THAT THE MAXIMUM BRANCH CIRCUIT VOLTAGE DROP IS LESS THAN 3 PERCENT.
6. PROVIDE SPLICE AND PULL BOXES FOR SITE LIGHTING, SITE ELECTRICAL POWER, AND LOW VOLTAGE CABLING TO LIMIT MAXIMUM CONDUIT RUN TO 300'. PLACE BOXES IN A PLANTER AREA CLEAR OF VEGETATION WHEREVER PRACTICAL. (COORDINATE FINAL LOCATION WITH CIVIL, LANDSCAPE CONTRACTOR AND OWNER). BOXES SHALL BE SUITABLE FOR LOCATION AND PROPERLY SIZED FOR QUANTITY AND SIZE OF CONDUITS IN AND OUT AND SHALL BE MARKED "ELECTRICAL". NOT ALL OF THESE BOXES ARE SHOWN ON SITE ELECTRICAL DRAWINGS. CONTRACTOR SHALL PROVIDE LOCATION ON AS-BUILT DRAWINGS AND SUBMIT TO OWNER. SPLICE BOX SHALL BE APPROPRIATE FOR LOCATION AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SPLICE BOX SHALL HAVE A MINIMUM NOMINAL SIZE OF 12"X12"X12". SHALL BE AN OPEN BOTTOM NRTL LISTED UNDERGROUND ENCLOSURE, AND SHALL AT A MINIMUM BE TIER 15 TRAFFIC RATED.

POLE/MOUNTING HEIGHTS

FIXTURE	HEIGHT
SP	+12'-0"
S2	+20'-0"
S3	+20'-0"
S4	+20'-0"
S4-2	+20'-0"
S5	+20'-0"
W1,W1E	+12'-0"
W2,W2E	+12'-0"
W8,W8E	CANOPY CEILING MOUNTED
W16,W16E	VERTICAL WALL MOUNTING
WW	19'-7"

NOTE: THE ABOVE HEIGHTS ARE TYPICAL PER FIXTURE UNLESS NOTED OTHERWISE ON PLANS.

VOLTAGE DROP CALCULATIONS - ATHLETIC LIGHTING

PNL***CKT	Identification	Source Pole	Conduit Type P or S	Conductor Material CU or AL	No. of Sets	Wire Size (Feet)	Voltage	Phase	Circuit Length (Feet)*	Power Factor (PF)	Circuit Load (Amps)**	Branch Voltage Drop (%)
1.3.5	SA1	-	P	CU	1	10	480	3	235	0.90	5.900	0.551%
7.9.11	SA2	-	P	CU	1	10	480	3	385	0.90	5.900	0.903%
13.15.17	SB1	-	P	CU	1	10	480	3	235	0.90	10.500	0.981%
19.21.23	SB2	-	P	CU	1	10	480	3	565	0.90	10.500	2.359%
25.27.29	SA3	-	P	CU	1	10	480	3	315	0.90	9.100	1.140%
31.33.35	SA4	-	P	CU	1	10	480	3	440	0.90	9.100	1.592%
37.39.41	SB3	-	P	CU	1	8	480	3	410	0.90	17.300	1.855%
43.45.47	SB4	-	P	CU	1	6	480	3	630	0.90	19.200	2.022%
49.51.53	SC1	-	P	CU	1	6	480	3	765	0.90	15.300	1.931%
55.57.59	SC2	-	P	CU	1	6	480	3	890	0.90	15.300	2.276%
2.4.6	SA5	-	P	CU	1	10	480	3	415	0.90	9.100	1.501%
8.10.12	SA6	-	P	CU	1	10	480	3	485	0.90	9.100	1.755%
14.16.18	SB5	-	P	CU	1	8	480	3	540	0.90	14.100	1.991%
20.22.24	SB6	-	P	CU	1	8	480	3	620	0.90	14.100	2.286%
26.28.30	SC3	-	P	CU	1	8	480	3	830	0.90	10.900	2.366%
32.34.36	SC4	-	P	CU	1	8	480	3	880	0.90	10.900	2.508%
38.40.42	SA7	-	P	CU	1	10	480	3	310	0.90	9.100	1.122%
44.46.48	SA8	-	P	CU	1	10	480	3	140	0.90	9.100	0.507%
50.52.54	SB7	-	P	CU	1	10	480	3	460	0.90	14.100	2.579%
56.58.60	SB8	-	P	CU	1	10	480	3	120	0.90	14.100	0.673%
62.64.66	SC5	-	P	CU	1	10	480	3	365	0.90	10.900	1.582%
68.70.72	SC6	-	P	CU	1	10	480	3	525	0.90	10.900	1.942%

*Circuit length assumes reasonable conduit paths to pole, routed around playing field, 90-degree turns, and 70' for maximum pole height. Circuit length shall be assumed as approximate. Provide documentation during athletic field lighting submittal for review - contractor shall update circuit length and confirm no circuits exceed 2.8% voltage drop.
**Circuit load provided by Musco Lighting
***Circuits are fed from panel H1S and routed through Musco Lighting relay panels.

ALTERNATE NO. 3 - ATHLETIC FIELD LIGHTING.

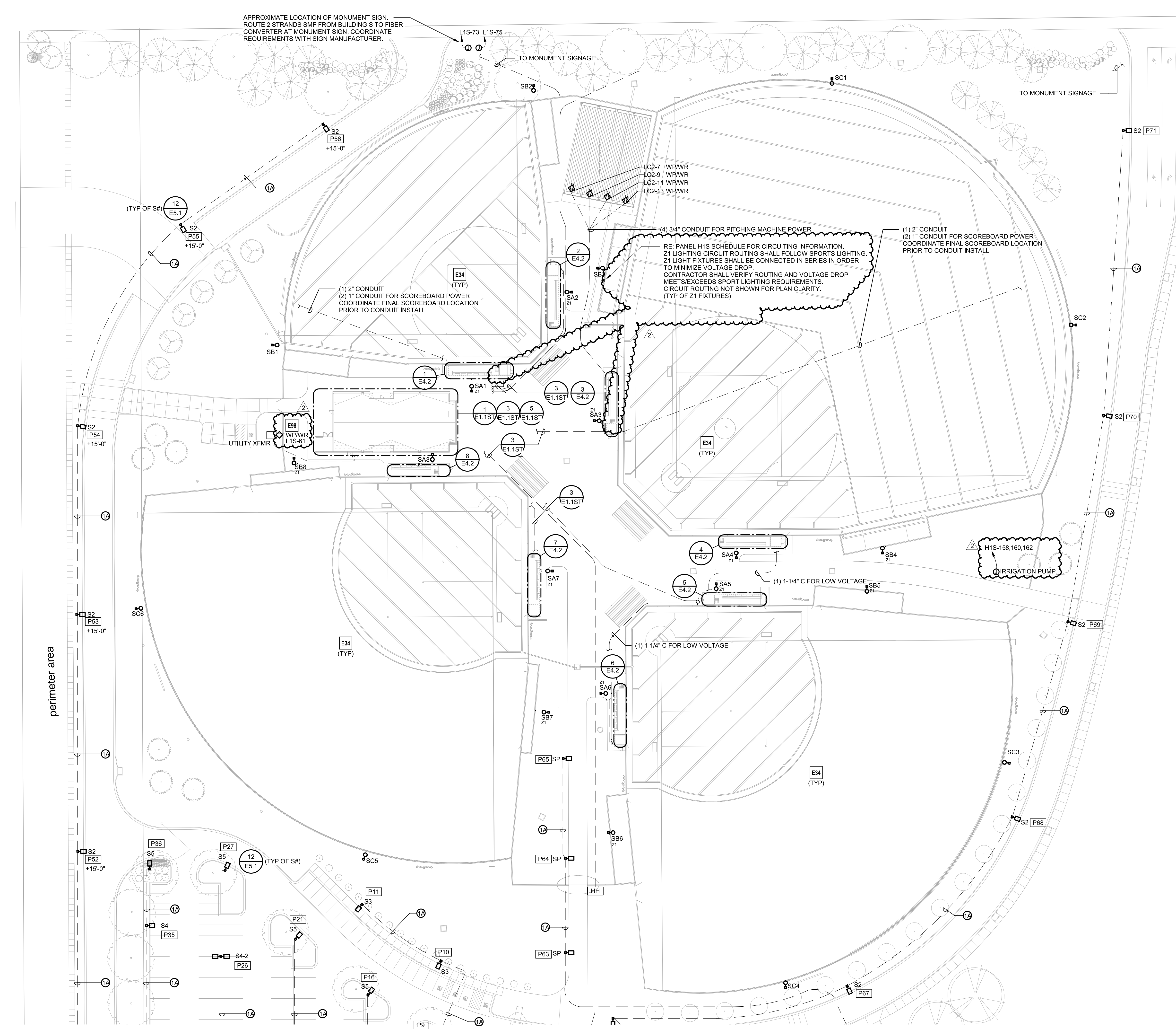
- BASE BID -
 - NO FIELD LIGHTING TO BE PROVIDED FOR BASEBALL/SOFTBALL.
 - BELOW GRADE CONDUIT TO POLE LOCATIONS TO BE PROVIDED FOR FUTURE FIELD LIGHTING.
- ELECTRICAL SERVICE AT CONCESSIONS BUILDING TO BE SIZED TO SUPPORT FIELD LIGHTING FOR ALL FOUR BASEBALL/SOFTBALL FIELDS.
- ALTERNATE BID #1 -
 - BASE BID + FIELD LIGHTING TO BE PROVIDED FOR TWO NORTH VARSITY COMPETITION BASEBALL/SOFTBALL FIELDS.
- ALTERNATE BID #2 -
 - BASE BID + ALTERNATE BID #1 + FIELD LIGHTING TO BE PROVIDED FOR TWO SOUTH BASEBALL/SOFTBALL FIELDS.

REFER TO DIVISION 1 SPECIFICATIONS FOR ADDITIONAL INFORMATION ON ALTERNATES.

ELECTRICAL PLAN NOTES:

E34 RE: VOLTAGE DROP AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION: TYPICAL OF SA#, SB#, AND SC# ATHLETIC FIELD LIGHTING FIXTURES.

E98 PROVIDE PEDESTAL MOUNTED RECEPTACLE TO SERVE IRRIGATION CONTROLLER. COORDINATE LOCATION WITH ARCHITECT.



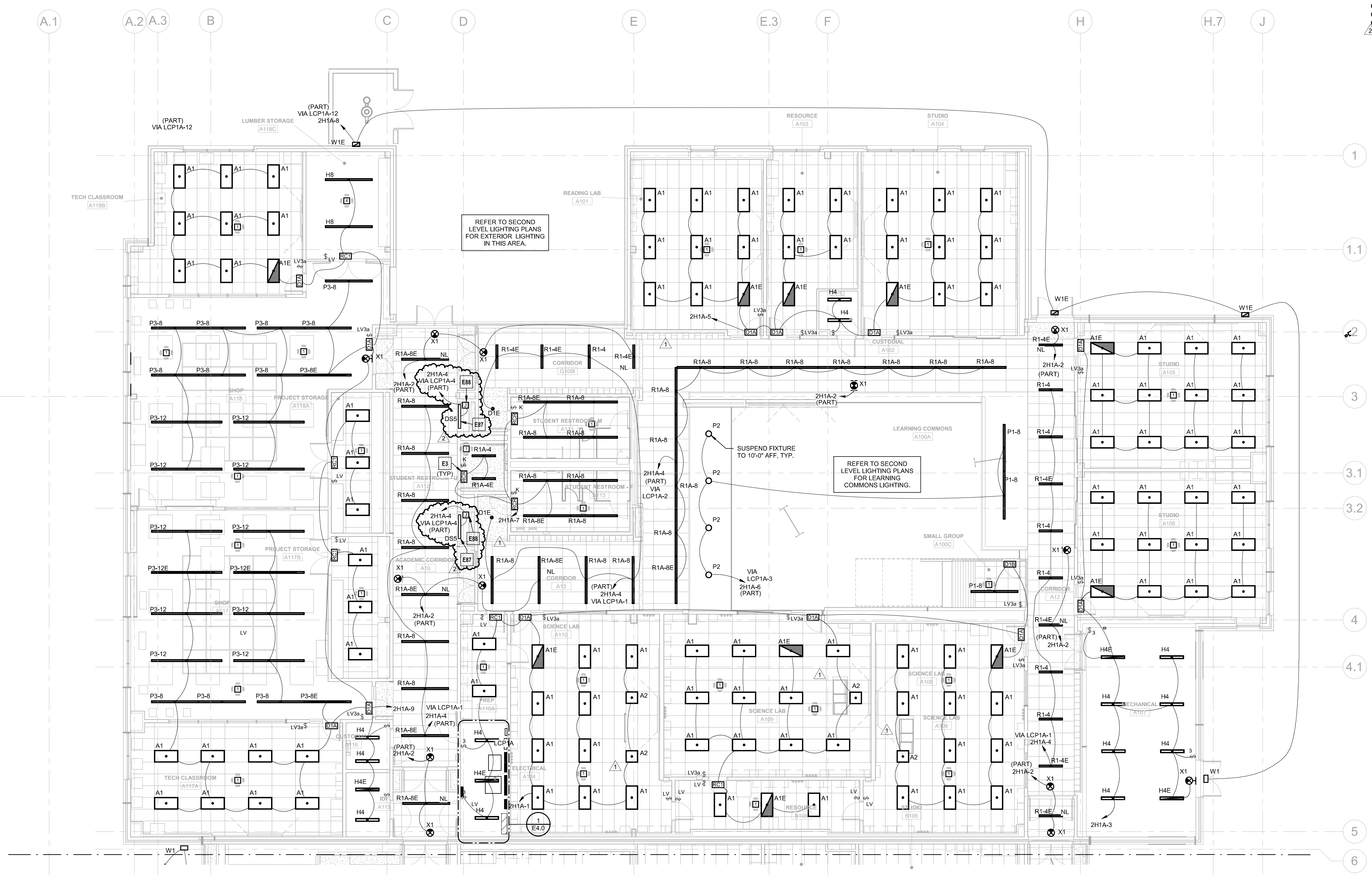
1 ELECTRICAL SITE PLAN - NORTH
1" = 40'-0"

LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED "NL" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

ELECTRICAL PLAN NOTES:

- E3 INSTALL RELAY PACK IN AN ACCESSIBLE LOCATION ABOVE CEILING. LOCATION SHOWN IS DIAGRAMMATIC TO REPRESENT ASSOCIATION TO LIGHT FIXTURES AND LIGHTING CONTROLS EQUIPMENT.
- E87 DISPLAY CASE LIGHT FIXTURE. COORDINATE MOUNTING WITH ARCHITECT PRIOR TO ROUGH-IN.
- E88 PROVIDE DISPLAY CABINET LIGHTING POWER SUPPLY AND 0-10V DIMMING MODULE IN ACCESSIBLE LOCATION ABOVE DISPLAY CASE. COORDINATE LOCATION WITH ARCHITECT SO THAT COMPONENTS ARE NOT VISIBLE TO OCCUPANT. REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION.



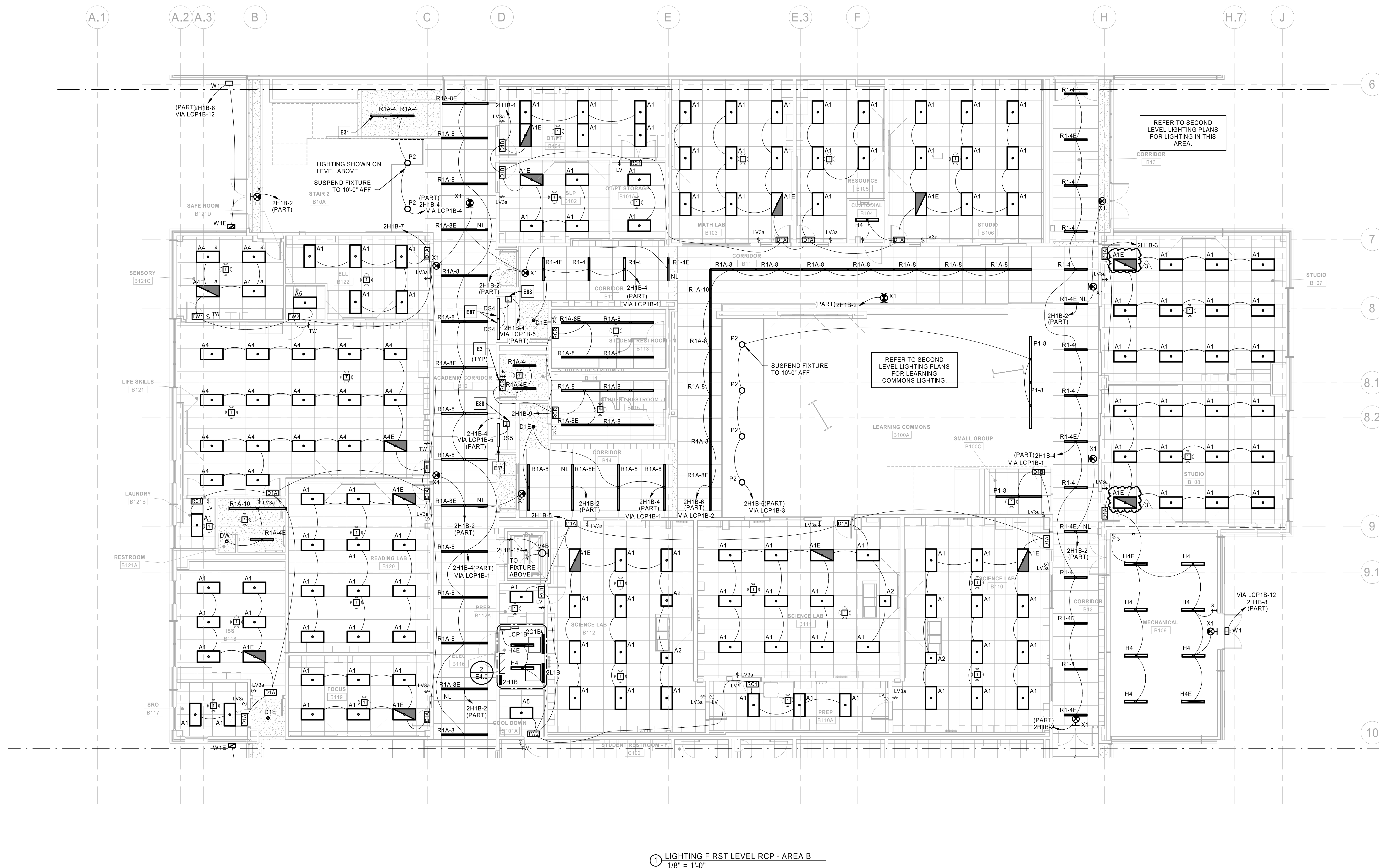
1 LIGHTING FIRST LEVEL RCP - AREA A
1/8" = 1'-0"

LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED 'NL' (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

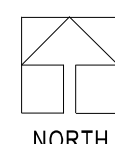
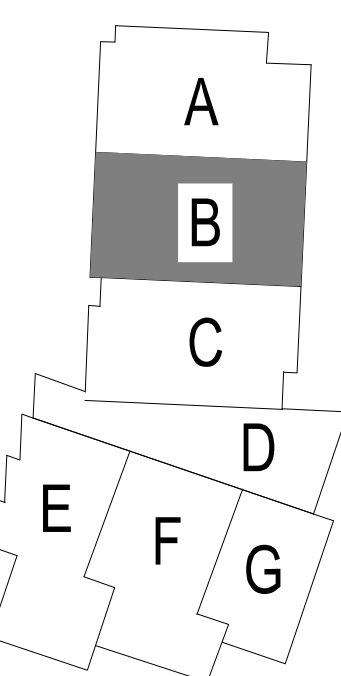
ELECTRICAL PLAN NOTES:

- E3 INSTALL RELAY PACK IN AN ACCESSIBLE LOCATION ABOVE CEILING. LOCATION SHOWN IS DIAGRAMMATIC TO REPRESENT ASSOCIATION TO LIGHT FIXTURES AND LIGHTING CONTROLS EQUIPMENT.
- E31 RECESSED LINEAR FIXTURE TO BE INSTALLED IN ANGLED PORTION OF CEILING UNDERNEATH STAIRS. COORDINATE INSTALLATION REQUIREMENTS FOR TRANSITION OF CEILING FROM FLAT TO ANGLED WITH MANUFACTURER'S SPECIFICATIONS.
- E87 DISPLAY CASE LIGHT FIXTURE. COORDINATE MOUNTING WITH ARCHITECT PRIOR TO ROUGH-IN.
- E88 PROVIDE DISPLAY CABINET LIGHTING POWER SUPPLY AND 0-10V DIMMING MODULE IN ACCESSIBLE LOCATION ABOVE DISPLAY CASE. COORDINATE LOCATION WITH ARCHITECT SO THAT COMPONENTS ARE NOT VISIBLE TO OCCUPANT. REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION.



① LIGHTING FIRST LEVEL RCP - AREA B
1/8" = 1'-0"

KEY PLAN

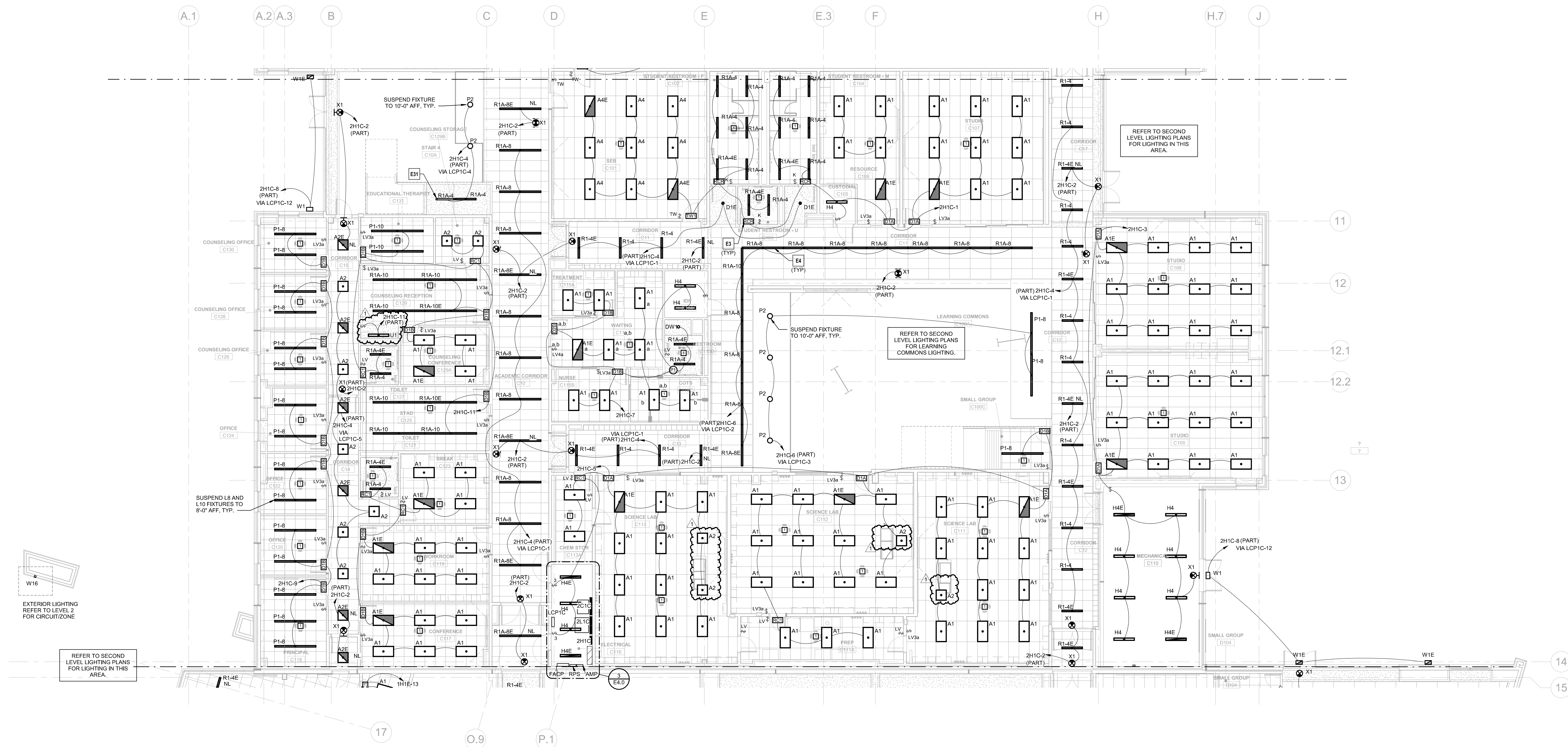


ELECTRICAL PLAN NOTES:

- E3 INSTALL RELAY PACK IN AN ACCESSIBLE LOCATION ABOVE CEILING. LOCATION SHOWN IS DIAGNAMATIC TO REPRESENT ASSOCIATION TO LIGHT FIXTURES AND LIGHTING CONTROLS EQUIPMENT.
- E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS FIXTURE. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL VERIFY FIXTURE LENGTHS WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.
- E31 RECESSED LINEAR FIXTURE TO BE INSTALLED IN ANGLED PORTION OF CEILING UNDERNEATH STAIRS. COORDINATE INSTALLATION REQUIREMENTS FOR TRANSITION OF CEILING FROM FLAT TO ANGLED WITH MANUFACTURER'S SPECIFICATIONS.

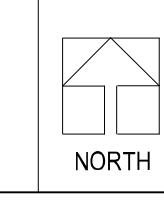
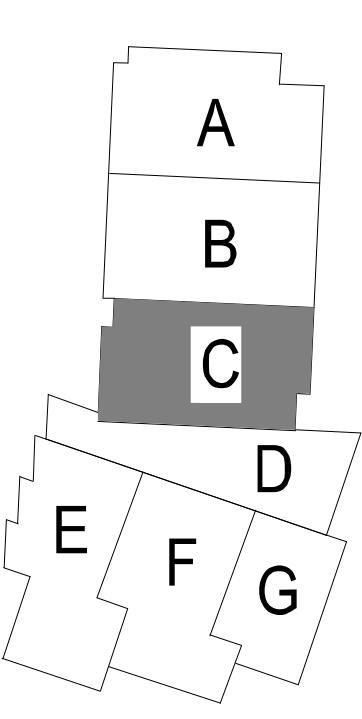
LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED "NL" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. REFER TO ASTRONOMICAL TIME CLOCK AND PHOTOCCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.



1 LIGHTING FIRST LEVEL RCP - AREA C
1/8" = 1'-0"

KEY PLAN



ELECTRICAL PLAN NOTES:

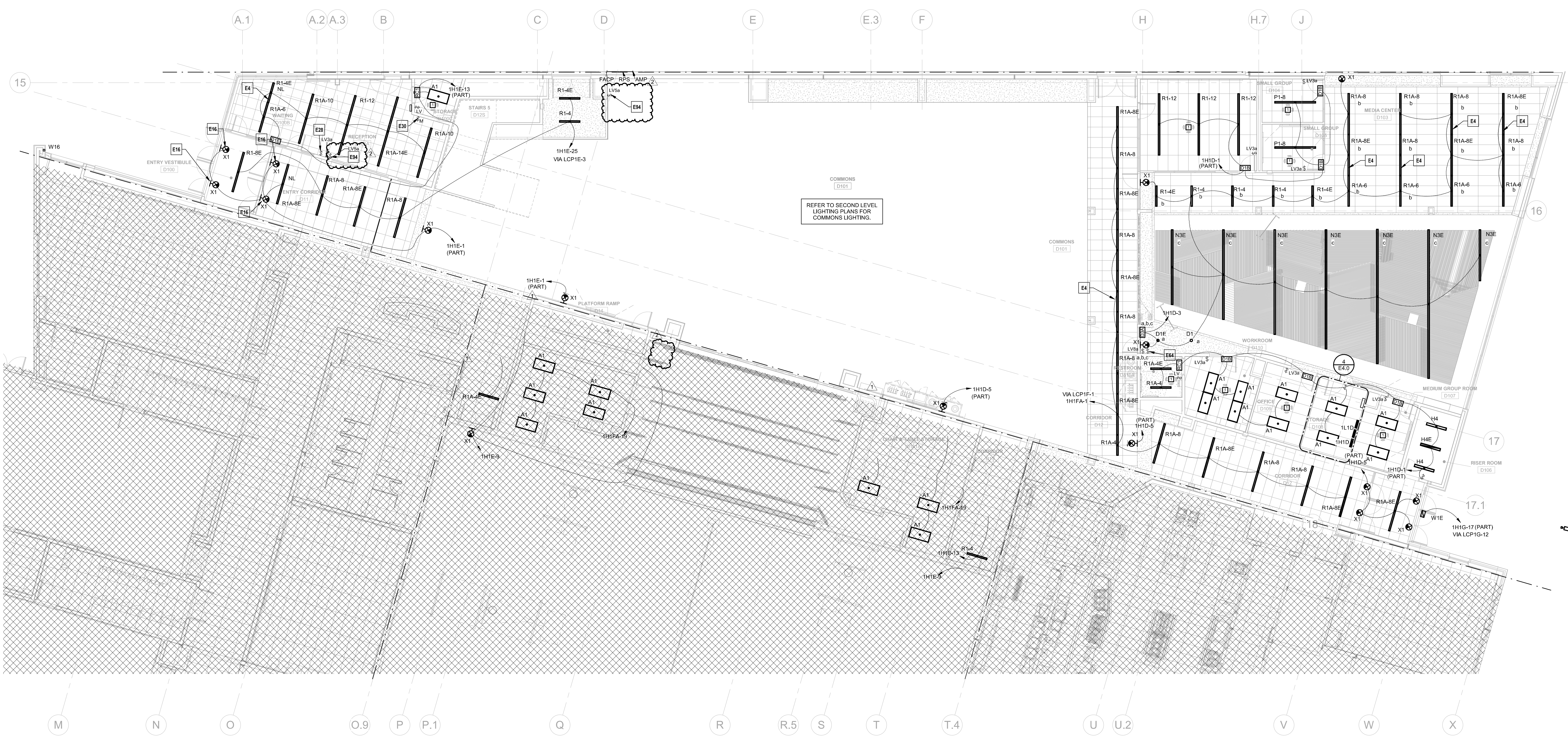
- E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS FIXTURE. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL VERIFY FIXTURE LENGTHS WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.
- E16 MOUNT EXIT SIGN TO STRUCTURAL ELEMENT BETWEEN UPPER AND LOWER STOREFRONT GLASS. COORDINATE ROUGH-IN WITH FIELD CONDITIONS.
- E28 LOW VOLTAGE SWITCH FOR CONTROL OF MOTORIZED BLINDS IN ROOM D108. COORDINATE LOCATION OF SWITCH WITH OWNER. COORDINATE CONTROLS REQUIREMENTS WITH MOTORIZED BLINDS MANUFACTURER.
- E30 PROPOSED LOCATION FOR MASTER LIGHTING CONTROL INTERFACE FOR LIGHTING CONTROL PANELS. CONFIRM EXACT LOCATION WITH ARCHITECT AND COORDINATE INSTALLATION REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.

ELECTRICAL PLAN NOTES:

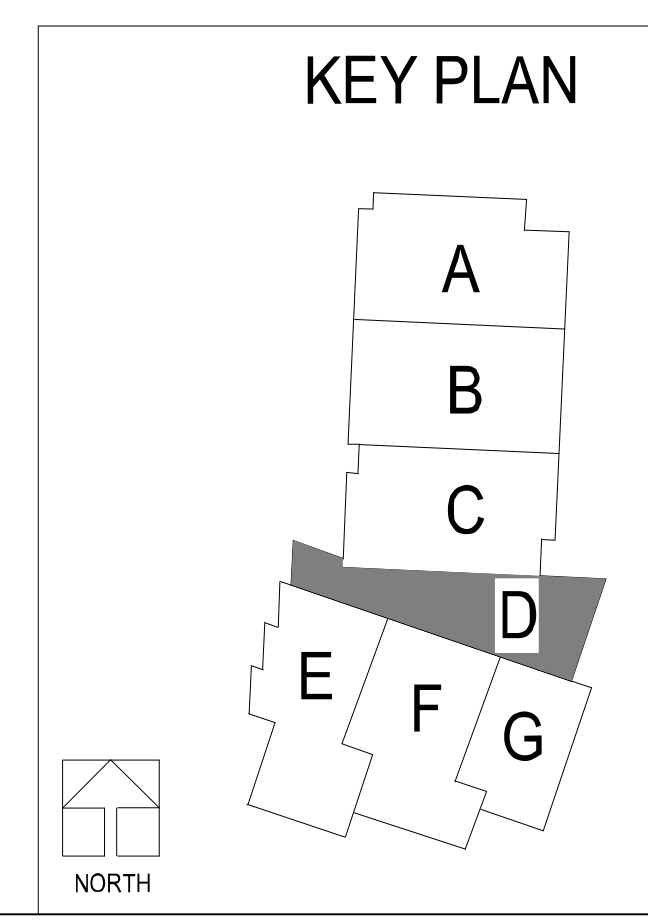
- E64 LOW VOLTAGE SWITCH FOR CONTROL OF MOTORIZED BLINDS IN ROOM D103. CONNECT SWITCH TO RELAY PANEL IN ROOM D108. COORDINATE LOCATION OF SWITCH WITH OWNER. COORDINATE CONTROLS REQUIREMENTS WITH MOTORIZED BLINDS MANUFACTURER.
- E64 SWITCH IS FOR OPERATION OF COMMONS D101 LIGHTING AND IS TO INTERFACE WITH THEATRICAL LIGHTING CONTROL PANEL LCP1F.

LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED "NL" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.



① LIGHTING FIRST LEVEL RCP - AREA D
1/8" = 1'-0"

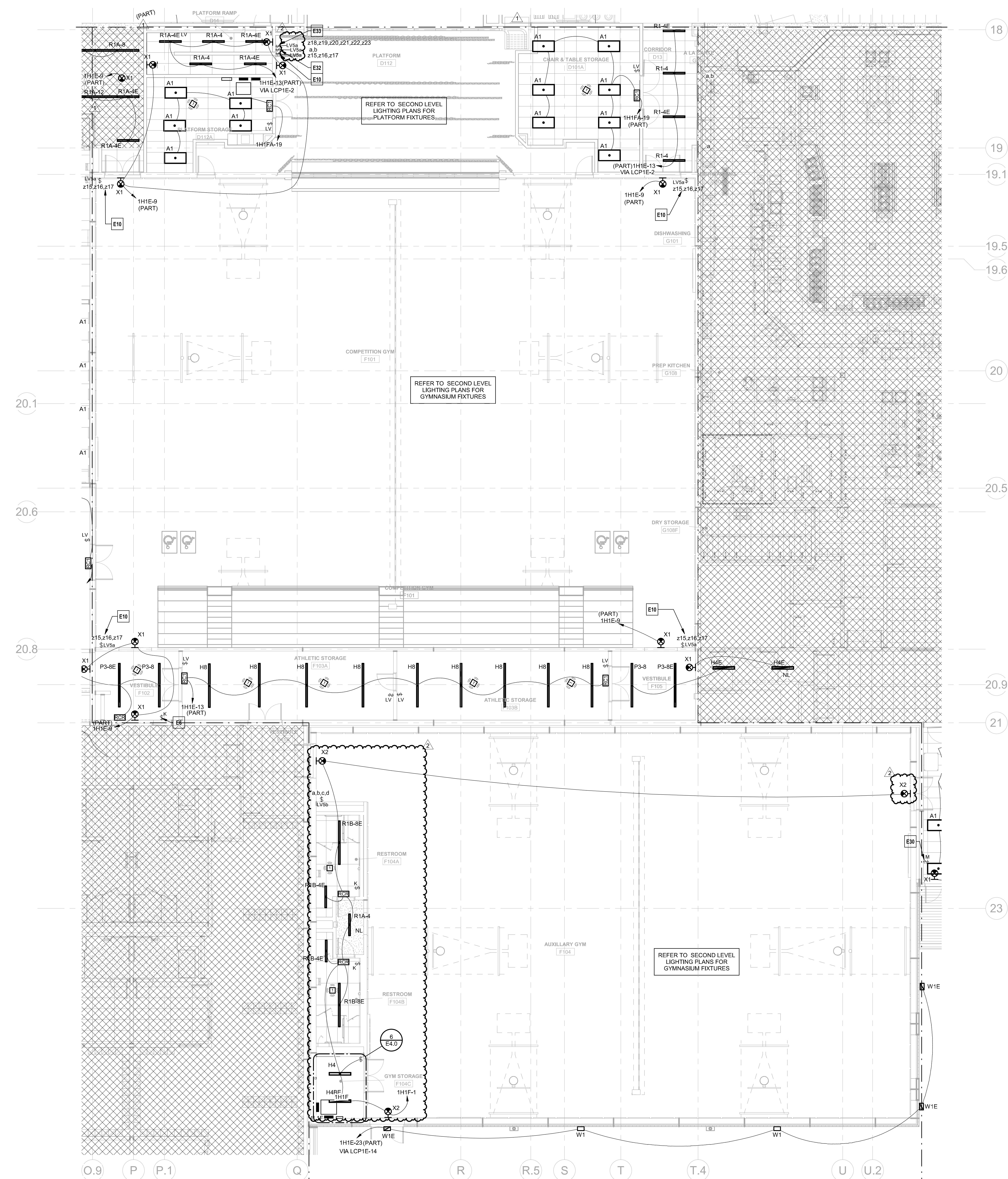


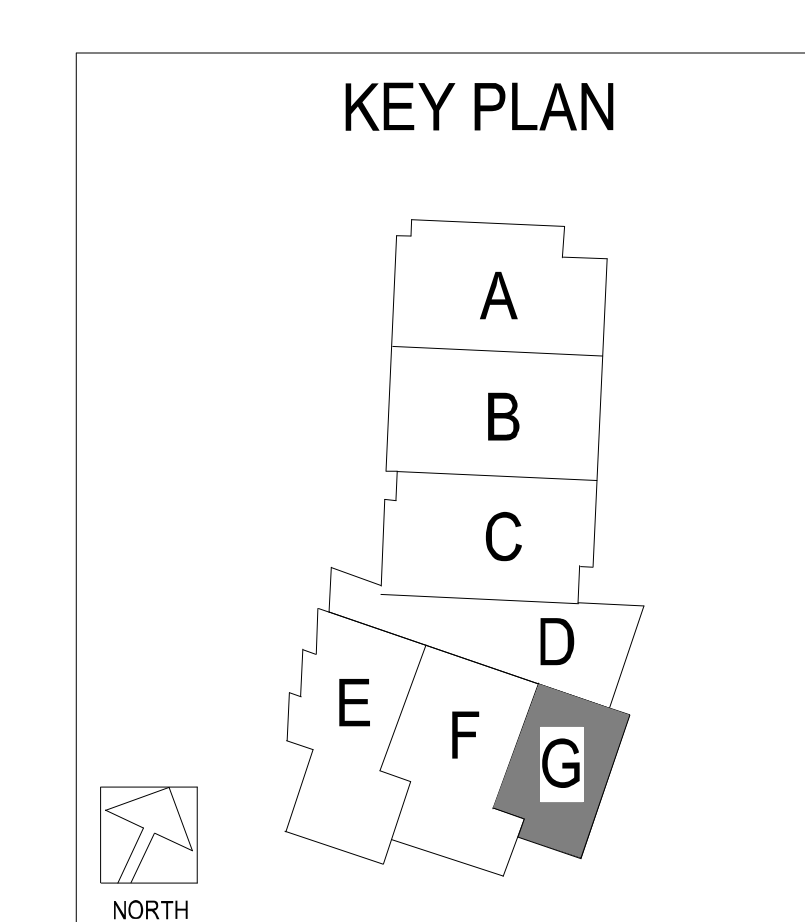
LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED "NL" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

ELECTRICAL PLAN NOTES:

- E6 KEYED SWITCH, IN VESTIBULE F102 AND ASSOCIATED OCCUPANCY SENSORS, TO CONTROL LIGHTS IN VESTIBULE F102 AND LCP1E-1A-2-ADAPT-TABARELLI F100A.
- E10 LOW VOLTAGE LIGHT SWITCHES FOR COMPETITION GYM F101 TO PROVIDE ON/OFF AND DIMMING FUNCTIONALITY FOR GYMNASIUM LIGHT FIXTURES. LIGHT SWITCH TO INTERFACE WITH LIGHTING CONTROL PANEL LCP1E-1 LOCATED IN PLATFORM STORAGE D112A. CIRCUITS FOR GYMNASIUM LIGHT FIXTURES TO BE ROUTED THROUGH DIMMING MODULES IN LIGHTING CONTROL PANEL LCP1E-1 AS SHOWN.
- E30 PROPOSED LOCATION FOR MASTER LIGHTING CONTROL INTERFACE FOR LIGHTING CONTROL PANELS. CONFIRM EXACT LOCATION WITH ARCHITECT AND COORDINATE INSTALLATION REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E32 STAGE AREA LIGHTING CONTROL SWITCH SHOWN ON E1.1F. LIGHTING TO BE ROUTED THROUGH LIGHTING CONTROL PANEL.
- E33 COMMONS D101 LIGHTING TO BE ROUTED THROUGH NETWORKED LIGHTING CONTROL PANEL LCP1E-1. LIGHTING OPERATION IS TO BE CONTROLLED VIA TIME SWITCH CONTROLS AND MASTER LIGHTING CONTROL INTERFACE(S). PROVIDE AN ADDITIONAL INTERFACE FOR JUST THE COMMONS LIGHTING LOCATED ON PLATFORM D112.





MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - INDOOR				
CR 14	LVL1 - AREA S	L1S	49.51	B,C
COMPUTER ROOM - OUTDOOR				
CU 14	LVL1 - AREA S	L1S	49.51	
Electric Storage Water Heater				
WH11	LVL1 - AREA S	H1S	127,129,131	
FAN				
EF 23	LVL1 - AREA S	L1S	53	A
EF 24	LVL1 - AREA S	L1S	55	A
TF 2	LVL1 - AREA S	L1S	57	A
Recirculation Pump				
RP1	LVL1 - AREA S	L1S	59	B
UNIT HEATER ELECTRIC				
EUH 1	LVL1 - AREA S	H1S	89.91,93	A
EUH 2	LVL1 - AREA S	H1S	95	A
EUH 3A	LVL1 - AREA S	H1S	97	A
EUH 3B	LVL1 - AREA S	H1S	99	A
EUH 4	LVL1 - AREA S	H1S	101	A
EUH 5	LVL1 - AREA S	H1S	103,105,107	A
EUH 6	LVL1 - AREA S	H1S	109	A
EUH 7	LVL1 - AREA S	H1S	111,113,115	A
EUH 8	LVL1 - AREA S	H1S	117	A
EUH 9	LVL1 - AREA S	H1S	119,121,123	A
EUH 10	LVL1 - AREA S	H1S	125	A

1. COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

A. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
B. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
C. PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS
D. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
E. INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
F. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
G. LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE UNIT MOUNTED, EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR EQUIPMENT REQUIREMENTS
H. DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE LINE DIAGRAM (EX.3) OR PANEL SCHEDULES (EX.3)
I. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
J. DISCONNECTOR, CONTRACTOR SHALL CONFIRM CONTRACTOR/EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR DISCONNECTING MEANS
K. MAKE CONNECTIONS WITH MECHANICAL PLANS. DISCONNECTING MEANS (FRACTIONAL HP SWITCH), FUSED DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23
L. MAKE TWO POWER CONNECTIONS, CIRCUIT AS SHOWN ON PLAN. COORDINATE EXIST REQUIREMENTS WITH MANUFACTURER
M. DISCONNECTOR, CONTRACTOR SHALL CONFIRM CONTRACTOR/EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR DISCONNECTING MEANS
N. KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER
O. DISCONNECTOR, CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER
P. DISCONNECTOR, CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
Q. PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACTS PROVIDED BY MANUFACTURER. COORDINATE REQUIREMENTS WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

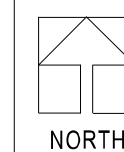
E8 LOCKER ROOM KEY SWITCH(ES) AND OCCUPANCY SENSORS TO CONTROL ALL LIGHTING ASSOCIATED WITH EACH LOCKER ROOM. BOTH VESTIBULE, LOCKER ROOM AND LOCKER ROOM.

E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM SAME CIRCUIT AS CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH ARCHITECT AND ELECTRICAL ENGINEER'S SPECIFICATIONS AND PLUMBING PLANS.

E85 CONCESSION EXTERIOR BUILDING MOUNTED LIGHTING TO BE CONTROLLED BY COMBINATION OF PHOTOCELL AND ASTRONOMICAL TIME CLOCK. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR PROGRAMMING INFORMATION.

E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND REQUIREMENTS FOR POWER SUPPLY WITH DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.

The diagram shows a perspective view of a storage area. A rectangular box labeled 'STORAGE T.100' is positioned in the center. To the right of the storage area, there is a sensor labeled '1L1T-3' with an arrow pointing towards the storage area. Further to the right, there is a sensor labeled 'TX-1L1T' with an arrow pointing towards the storage area. The storage area is supported by two legs.



MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - INDOOR				
	CU 14 LV1L - AREA S	L1S	49.51	B,C
COMPUTER ROOM - OUTDOOR				
	CU 14 LV1L - AREA S	L1S	49.51	
Electric Storage Water Heater				
	WH11 LV1L - AREA S	H1S	127,129,131	
FAN				
EF 23	LV1L - AREA S	L1S	53	A
EF 24	LV1L - AREA S	L1S	55	A
TF 2	LV1L - AREA S	L1S	57	A
Recirculation Pump				
	RPE LV1L - AREA S	L1S	59	B
UNIT HEATER/ELECTRIC				
EUH 1	LV1L - AREA S	H1S	89.91,93	A
EUH 2	LV1L - AREA S	H1S	95	A
EUH 3A	LV1L - AREA S	H1S	97	A
EUH 3B	LV1L - AREA S	H1S	99	A
EUH 4	LV1L - AREA S	H1S	101	A
EUH 4 S	LV1L - AREA S	H1S	103,105,107	A
EUH 6	LV1L - AREA S	H1S	109	A
EUH 7	LV1L - AREA S	H1S	111,113,115	A
EUH 8	LV1L - AREA S	H1S	117	A
EUH 9	LV1L - AREA S	H1S	119,121,123	A
EUH 10	LV1L - AREA S	H1S	125	A

1. COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGHING.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

A. DISCONNECT MEANS FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, FV) PROVIDED BY DIVISION 26 CONTRACTOR. PROVIDE WITH MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.

B. PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.

C. DISCONNECT OF SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.

D. DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.

E. DISCONNECTING MEANS PROVIDED VIA LOW VOLTAGE LOW VOLTAGE UNIT MOUNTED EQUIPMENT TRANSFORMER. RE-MECHANICAL PLANS FOR DISCONNECTING MEANS REQUIRED.

F. DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE-ON LINE INDICATOR (EX) OR PANEL SCHEDULES (EXX).

G. DISCONNECT PROVIDE VIA CORD AND PLUG CONNECTION, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.

H. DISCONNECT UNIT WITH REMOTE CONTROLLED CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.

I. DISCONNECT PROVIDE VIA CORD AND PLUG CONNECTION, INSTALLED BY KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULL FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.

J. DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULL FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.

K. PROVIDE CONTRACTOR TO PROVIDE NON-USERSIFIED SWITCH SIZE D/E EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.

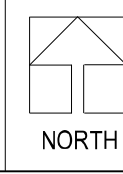
L. PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACTS TO PROVIDE CONTROL OF THE SYSTEM. COORDINATE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

E8 LOCKER ROOM KEY SWITCHES/E AND OCCUPANCY SENSORS TO CONTROL ALL LIGHTING ASSOCIATED WITH EACH LOCKER ROOM WITH EACH VESTIBULE LOCKER ROOM.

E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TANK TO BE FED FROM THE EXISTING CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURERS SPECIFICATIONS AND BUILDING DEPARTMENT.

E85 CONCESSION EXTERIOR BUILDING MOUNTED LIGHTING TO BE CONTROLLED BY COMBINATION OF PHOTOCELL AND ASTRONOMICAL TIME CLOCK (REFER TO THE SEQUENCE OF OPERATIONS FOR PROGRAMMING INFORMATION).

E86 PROVIDE POWER CONNECTION TO DASH HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH THE PROJECT ARCHITECT AND HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.



VOLTAGE DROP CALCULATIONS - SITE LIGHTING														
PANEL-CKT	Identification		Source Pole	Conduit Type P or S	Conductor Material CU or AL	No. of Sets	Wire Size (Phase)	Voltage	Phase	Circuit Length (Feet)	Power Factor (PF)	Circuit Load (Amps)	Branch Voltage Drop (Volts)	Cumulative Voltage Drop
	Pole	Fixture												Voltage Drop (%)
2H1C-12	P1	To S5	-	P	CU	1	8	277	1	200	0.95	8.533	2.586	0.934%
2H1C-12	P2	To S4-2	P1	P	CU	1	8	277	1	80	0.95	2.732	0.331	1.053%
2H1C-12	P3	To S4-2	P2	P	CU	1	8	277	1	90	0.95	2.049	0.279	1.154%
2H1C-12	P4	To S4-2	P3	P	CU	1	8	277	1	105	0.95	1.366	0.217	1.232%
2H1C-12	P5	To S4-2	P4	P	CU	1	8	277	1	80	0.95	0.683	0.083	1.262%
2H1C-12	P6	To S5	P1	P	CU	1	8	277	1	70	0.95	2.732	0.290	1.038%
2H1C-12	P7	To S4-2	P6	P	CU	1	8	277	1	140	0.95	2.391	0.507	1.221%
2H1C-12	P8	To S4-2	P7	P	CU	1	8	277	1	120	0.95	1.708	0.310	1.333%
2H1C-12	P9	To S5	P8	P	CU	1	8	277	1	140	0.95	1.025	0.217	1.412%
2H1C-12	P10	To S3	P9	P	CU	1	8	277	1	75	0.95	0.342	0.044	1.440%
2H1C-12	P11	To S3	P10	P	CU	1	8	277	1	85	0.95	0.342	0.044	1.455%
2H1C-12	P12	To S5	P6	P	CU	1	8	277	1	60	0.95	2.732	0.248	1.128%
2H1C-12	P13	To S4-2	P12	P	CU	1	8	277	1	80	0.95	2.391	0.290	1.232%
2H1C-12	P14	To S4-2	P13	P	CU	1	8	277	1	130	0.95	1.708	0.336	1.354%
2H1C-12	P15	To S4-2	P14	P	CU	1	8	277	1	130	0.95	1.025	0.202	1.427%
2H1C-12	P16	To S5	P15	P	CU	1	8	277	1	100	0.95	0.342	0.052	1.445%
2H1C-14	P17	To S5	-	P	CU	1	8	277	1	395	0.95	9.221	5.516	1.995%
2H1C-14	P18	To S4-2	P17	P	CU	1	8	277	1	145	0.95	2.391	0.525	2.185%
2H1C-14	P19	To S4-2	P18	P	CU	1	8	277	1	120	0.95	1.708	0.310	2.297%
2H1C-14	P20	To S4-2	P19	P	CU	1	8	277	1	135	0.95	1.025	0.209	2.372%
2H1C-14	P21	To S5	P20	P	CU	1	8	277	1	85	0.95	0.342	0.044	2.388%
2H1C-14	P22	To S5	P17	P	CU	1	8	277	1	65	0.95	3.415	0.336	2.116%
2H1C-14	P23	To S4-2	P22	P	CU	1	8	277	1	80	0.95	3.074	0.372	2.251%
2H1C-14	P24	To S4-2	P23	P	CU	1	8	277	1	125	0.95	2.391	0.453	2.414%
2H1C-14	P25	To S4-2	P24	P	CU	1	8	277	1	125	0.95	1.708	0.323	2.531%
2H1C-14	P26	To S4-2	P25	P	CU	1	8	277	1	135	0.95	1.025	0.209	2.607%
2H1C-14	P27	To S5	P26	P	CU	1	8	277	1	75	0.95	0.342	0.039	2.621%
2H1C-14	P28	To S5	P22	P	CU	1	8	277	1	55	0.95	3.074	0.266	2.206%
2H1C-14	P29	To S5	P28	P	CU	1	8	277	1	95	0.95	2.732	0.393	2.351%
2H1C-14	P30	To S5	P29	P	CU	1	8	277	1	65	0.95	2.391	0.235	2.436%
2H1C-14	P31	To S5	P30	P	CU	1	8	277	1	65	0.95	2.049	0.202	2.509%
2H1C-14	P32	To S5	P31	P	CU	1	8	277	1	65	0.95	1.708	0.168	2.569%
2H1C-14	P33	To S5	P32	P	CU	1	8	277	1	65	0.95	0.342	0.034	2.618%
2H1C-14	P34	To S5	P33	P	CU	1	8	277	1	65	0.95	1.025	0.101	2.654%
2H1C-14	P35	To S5	P34	P	CU	1	8	277	1	95	0.95	0.683	0.098	2.690%
2H1C-14	P36	To S5	P35	P	CU	1	8	277	1	50	0.95	0.342	0.026	2.699%
1H1E-33	P37	To S3	-	P	CU	1	8	277	1	125	0.95	4.781	0.905	0.330%
1H1E-33	P38	To S3	P37	P	CU	1	8	277	1	100	0.95	1.025	0.155	0.387%
1H1E-33	P39	To S2	P38	P	CU	1	8	277	1	140	0.95	0.683	0.145	0.439%
1H1E-33	P40	To S2	P39	P	CU	1	8	277	1	125	0.95	0.342	0.065	0.462%
1H1E-33	P41	To S2	P37	P	CU	1	8	277	1	145	0.95	0.683	0.150	0.385%
1H1E-33	P42	To S2	P41	P	CU	1	8	277	1	125	0.95	0.342	0.065	0.408%
1H1E-33	P43	To S4-2	P37	P	CU	1	8	277	1	80	0.95	2.732	0.331	0.450%
1H1E-33	P44	To S4-2	P43	P	CU	1	8	277	1	70	0.95	2.049	0.217	0.528%
1H1E-33	P45	To S4-2	P44	P	CU	1	8	277	1	70	0.95	1.366	0.145	0.581%
1H1E-33	P46	To S4-2	P45	P	CU	1	8	277	1	70	0.95	0.683	0.072	0.607%
2H1C-16	P47	To S2	-	P	CU	1	8	277	1	605	0.95	3.415	3.129	1.133%
2H1C-16	P48	To S2	P47	P	CU	1	8	277	1	220	0.95	1.025	0.341	1.257%
2H1C-16	P49	To S2	P48	P	CU	1	8	277	1	215	0.95	0.683	0.222	1.337%
2H1C-16	P50	To S2	P49	P	CU	1	8	277	1	235	0.95	0.342	0.122	1.381%
2H1C-16	P51	To S2	P47	P	CU	1	8	277	1	280	0.95	2.049	0.869	1.447%
2H1C-16	P52	To S2	P51	P	CU	1	8	277	1	300	0.95	1.708	0.776	1.727%
2H1C-16	P53	To S2	P52	P	CU	1	8	277	1	205	0.95	1.366	0.424	1.880%
2H1C-16	P54	To S2	P53	P	CU	1	8	277	1	165	0.95	1.025	0.256	1.973%
2H1C-16	P55	To S2	P54	P	CU	1	8	277	1	200	0.95	0.683	0.207	2.047%
2H1C-16	P56	To S2	P55	P	CU	1	8	277	1	150	0.95	0.342	0.078	2.075%
2H1C-18	P57	To SP	-	P	CU	1	8	277	1	215	0.95	1.894	0.604	0.222%
2H1C-18	P58	To SP	P57	P	CU	1	8	277	1	80	0.95	0.421	0.050	0.240%
2H1C-18	P59	To SP	P58	P	CU	1	8	277	1	620	0.95	0.210	0.193	0.309%
2H1C-18	P60	To SP	P57	P	CU	1	8	277	1	80	0.95	1.263	0.150	0.276%
2H1C-18	P61	To SP	P60	P	CU	1	8	277	1	110	0.95	1.052	0.172	0.338%
2H1C-18	P62	To SP	P61	P	CU	1	8	277	1	130	0.95	0.842	0.162	0.396%
2H1C-18	P63	To SP	P62	P	CU	1	8	277	1	390	0.95	0.631	0.365	0.528%
2H1C-18	P64	To SP	P63	P	CU	1	8	277	1	80	0.95	0.421	0.050	0.546%
2H1C-18	P65	To SP	P64	P	CU	1	8	277	1	85	0.95	0.210	0.027	0.555%
2H1A-10	P66	To S2	-	P	CU	1	8	277	1	1	0.95	2.049	0.003	0.005%
2H1A-10	P67	To S2	P66	P	CU	1	8	277	1	205	0.95	1.708	0.519	0.192%
2H1A-10	P68	To S2	P67	P	CU	1	8	277	1	205	0.95	1.366	0.415	0.342%
2H1A-10	P69	To S2	P68	P	CU	1	8	277	1	175	0.95	1.025	0.266	0.438%
2H1A-10	P70	To S2	P69	P	CU	1	8	277	1	180	0.95	0.683	0.182	0.504%
2H1A-10	P71	To S2	P70	P	CU	1	8	277	1	245	0.95	0.342	0.124	0.548%
2H1C-20	P80	To SF	-	P	CU	1	8	277	1	200	0.95	0.375	0.111	0.043%
Typ Run	-	S3/S5 Fixture	-	P	CU	1	8	277	1	20	0.95	0.342	0.010	0.004%
Typ Run	-	S4-2 Fixture	-	P	CU	1	8	277	1	20	0.95	0.683	0.021	0.007%

POLE/MOUNTING HEIGHTS

FIXTURE	HEIGHT
SP	+12'-0"
S2	+20'-0"
S3	+20'-0"
S4	+20'-0"
S4-2	+20'-0"
S5	+20'-0"
W1,W1E	+12'-0"
W2,W2E	+12'-0"
W8,W8E	CANOPY CEILING MOUNTED
W16,W16E	VERTICAL WALL MOUNTING
WW	19'-7"

NOTE: THE ABOVE HEIGHTS ARE TYPICAL PER FIXTURE UNLESS NOTED OTHERWISE ON PLANS.

ELECTRICAL SHEET NOTES:

[P#] = SITE LIGHTING POLE DESIGNATION FOR VOLTAGE DROP CALCULATIONS ON THIS SHEET.

- COORDINATE EXACT POLE LOCATION WITH ARCHITECT, CIVIL, AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- UNDERGROUND CONDUIT ROUTING SHOWN FOR REFERENCE AND VOLTAGE DROP CALCULATIONS. COORDINATE EXACT ROUTING WITH OTHER UTILITIES, TREES, AND OTHER OBSTACLES. IF ROUTING DIFFERS FROM SHOWN, PROVIDE REVISED VOLTAGE DROP CALCULATIONS FOR REVIEW PRIOR TO INSTALLATION.

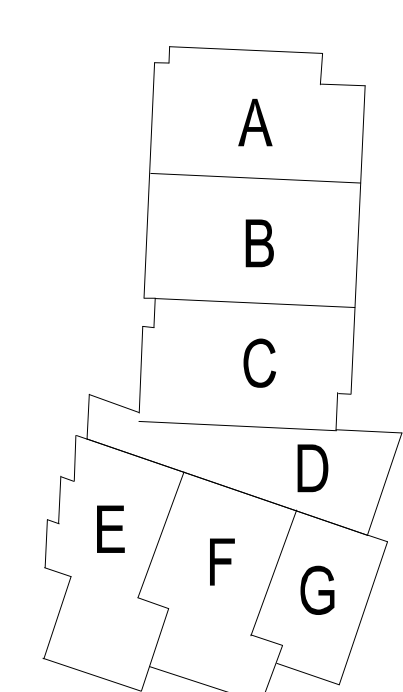
SITE LIGHTING CIRCUIT LEGEND

- # INDICATES NUMBER OF CIRCUITS IN A CONDUIT
- INDICATES CIRCUIT(S) CONDUCTOR(S) SIZE AND CONFIGURATION
- 1-1/2" PVC CONDUIT WITH PULLSTRING FOR FUTURE
- (3) 2" PVC CONDUIT WITH PULLSTRING FOR FUTURE
- 1-1/2" PVC CONDUIT WITH (2) #8 THWN CU. & (1) #6 GND.
- 1-1/2" PVC CONDUIT WITH (4) #8 THWN CU & (1) #6 GND.

ELECTRICAL PLAN NOTES:

E100 FLAG POLE SPOT LIGHTING TO BE MOUNTED IN LANDSCAPING ON TOP OF IN-GRADE ELECTRICAL JUNCTION BOX. COORDINATE INSTALLATION REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS. COORDINATE EXACT LOCATION OF FLAGPOLES AND LOCATION OF WITH ARCHITECTURAL AND LANDSCAPING PLANS PRIOR TO BEGINNING ANY WORK.

KEY PLAN



ELECTRICAL SITE PLAN - AREA 2
1" = 40'-0"

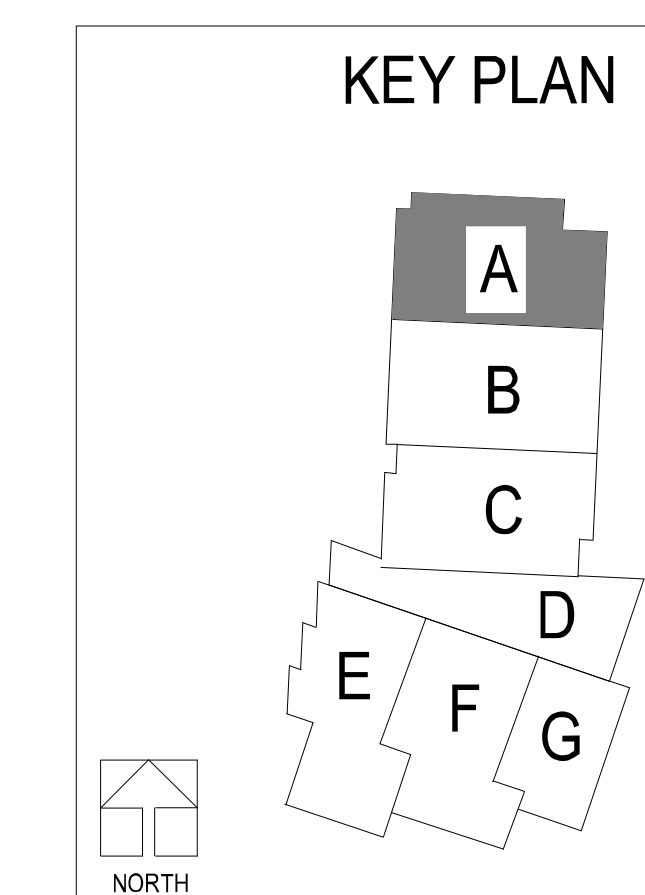
1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH END OF THE LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
2. FIXTURES LABELED "N1" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
3. INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
4. EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE MONOPHASE TRI-POLE LIGHTING CONTROL. REFER TO NETWORKED LIGHTING CONTROL PANEL REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS CHAIN. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL VERIFY FIXTURE LENGTHS WITH ARCHITECT PRIOR TO ORDERING.

E56 PROVIDE 1" WIDE SIGN FOR KILN ROOM. PROVIDE RELAYS AS NEEDED TO INTERCONNECT SIGN WITH KILN CONTROL PANEL AND BAS CONTROLS SO THAT LIGHT IS ILLUMINATED WHEN KILN IS IN USE.

E87 DISPLAY CASE LIGHT FIXTURE COORDINATE MOUNTING WITH ARCHITECT PRIOR TO ORDERING.

E88 PROVIDE DISPLAY CABINET LIGHTING POWER SUPPLY AND 0-10V DIMMING MODULE IN ACCESSIBLE LOCATION ABOVE DISPLAY CASE. COORDINATE LOCATION WITH ARCHITECT SO THAT COMPONENTS ARE NOT VISIBLE TO OCCUPANT. REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION.

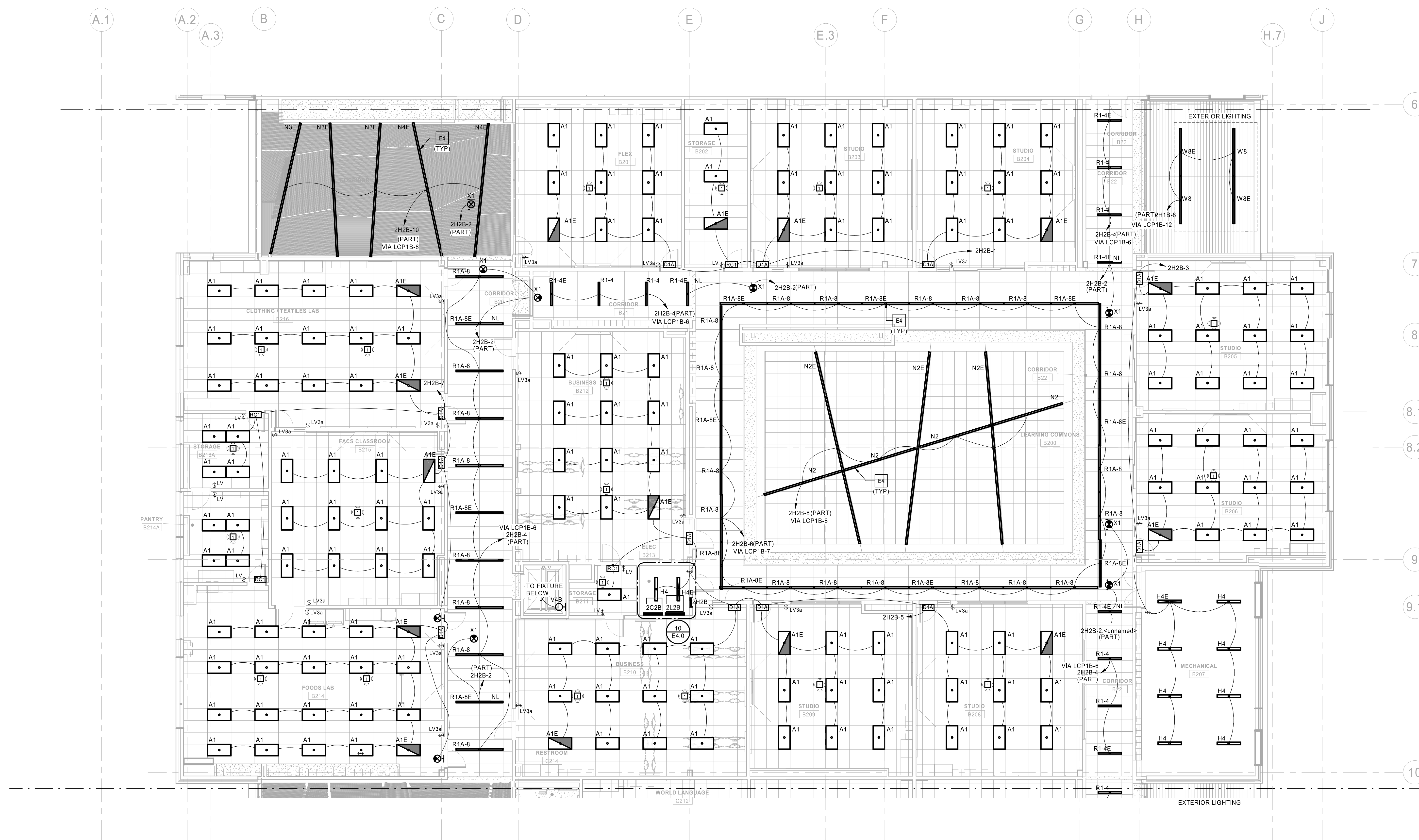


LIGHTING CONTROLS INTENT:

1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH END OF THE LIGHTING CONTROL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
2. FIXTURES LABELED "N1" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
3. INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
4. EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING CIRCUITS TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

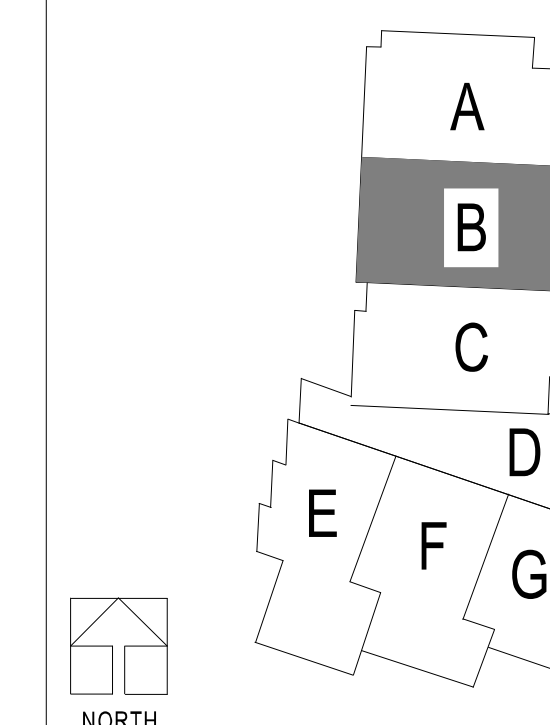
☐ **ELECTRICAL PLAN NOTES:**

- E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS FIXTURE. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL VERIFY FIXTURE LENGTHS WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.



① LIGHTING SECOND LEVEL RCP - AREA B
1/8" = 1'-0"

KEY PLAN

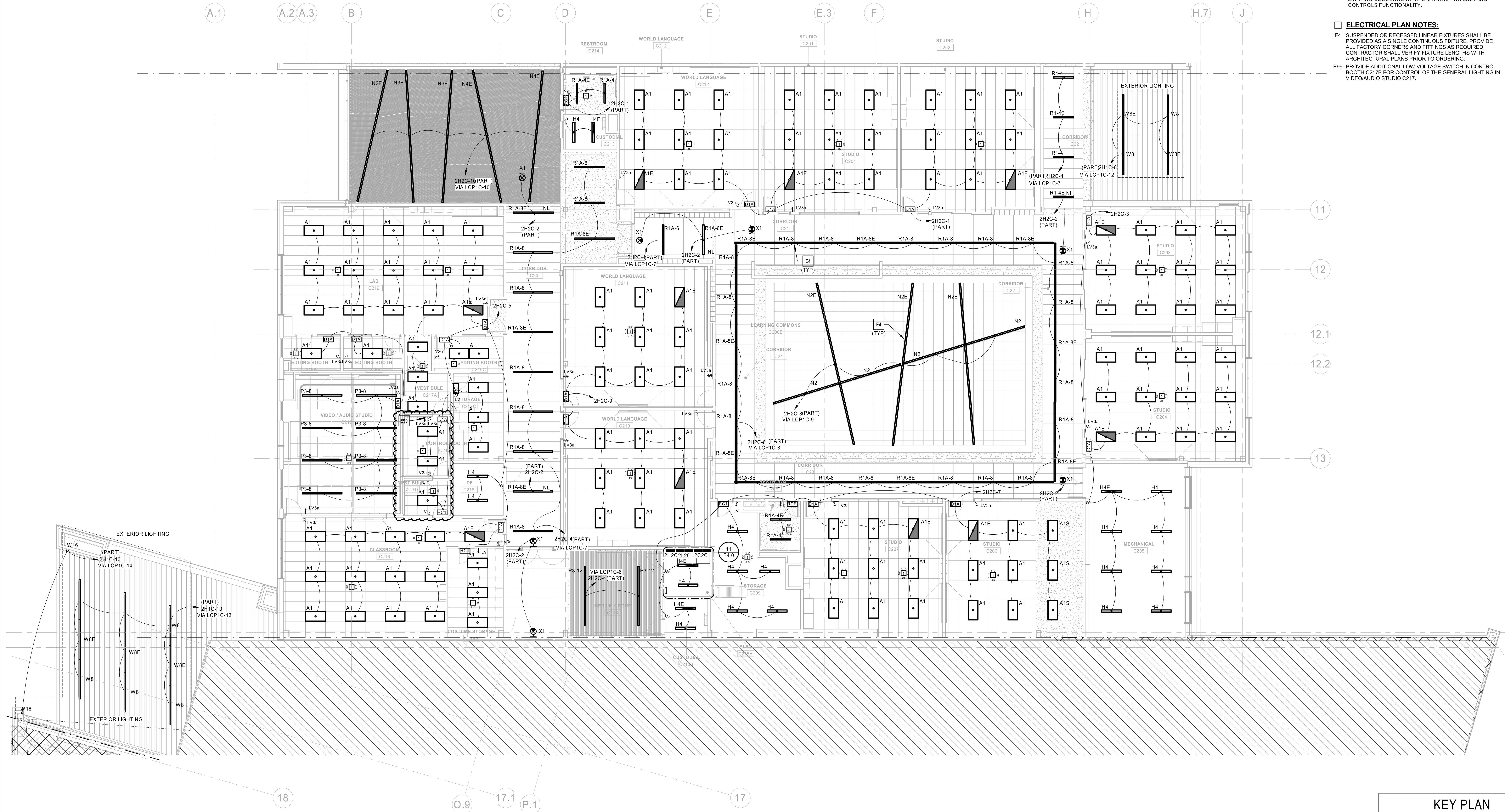


LIGHTING CONTROLS INTENT:

1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE MADE AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D10A.
2. FIXTURES LABELED "N1" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNWITNESSED HOT CONDUCTORS. LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
3. INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
4. EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA UNWITNESSED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

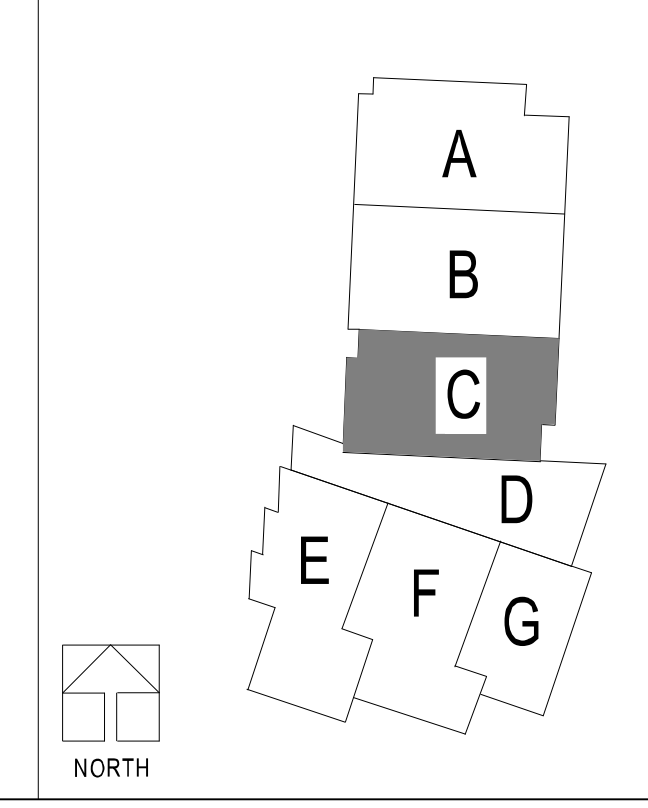
☐ **ELECTRICAL PLAN NOTES:**
E4 SUSPENDED OR RECESSED LINEAR FIX

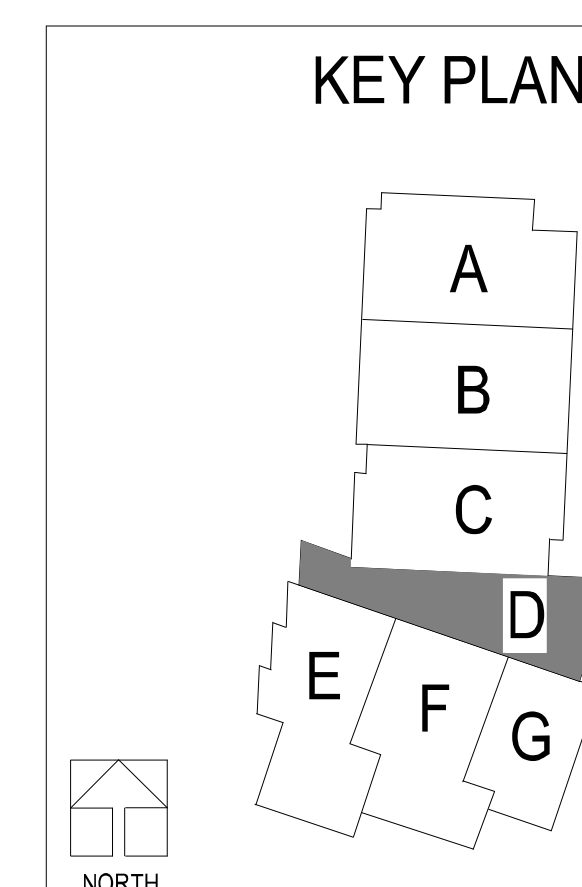
- E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS FIXTURE. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL VERIFY FIXTURE LENGTHS WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.
- E99 PROVIDE ADDITIONAL LOW VOLTAGE SWITCH IN CONTROL BOOTH C217B FOR CONTROL OF THE GENERAL LIGHTING IN VIDEO/AUDIO STUDIO C217.



① LIGHTING SECOND LEVEL RCP - AREA C
1/8" = 1'-0"

KEY PLAN





☐ **ELECTRICAL PLAN NOTES:**

E4 SUSPENDED OR RECESSED LINEAR FIXTURES SHALL BE PROVIDED AS A SINGLE CONTINUOUS FIXTURE. PROVIDE ALL FACTORY CORNERS AND FITTINGS AS REQUIRED. CONTRACTOR SHALL SUBMIT ALL DETAILS WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.

E14 FACE OF GYMNASIUM LIGHT FIXTURES TO BE MOUNTED FLUSH WITH THE BOTTOM OF ROOF TRUSSES/CONCRETE TRUSS DETAIL. CONTRACTOR SHALL FIELD SURVEY AND COORDINATE EXACT LOCATION OF GYMNASIUM LIGHT FIXTURES WITH GYMNASIUM RELATED EQUIPMENT. BASEBALL HALL, LOCKERS, STAIRS, SPEAKERS AND MECHANICAL DUCT WORK.

E33 COMMONS D101 LIGHTING TO BE Routed THROUGH NETWORKED LIGHTING CONTROL PANEL LCP1F. LIGHTING OPERATION IS TO BE CONTROLLED VIA WALL SWITCH COMMONS D101.5 AND MASTER LIGHTING CONTROL INTERFACE(S). PROVIDE AN ADDITIONAL INTERFACE FOR J11. THE COMMONS LIGHTING LOCATED ON PLATFORM

LIGHTING CONTROLS INTENT

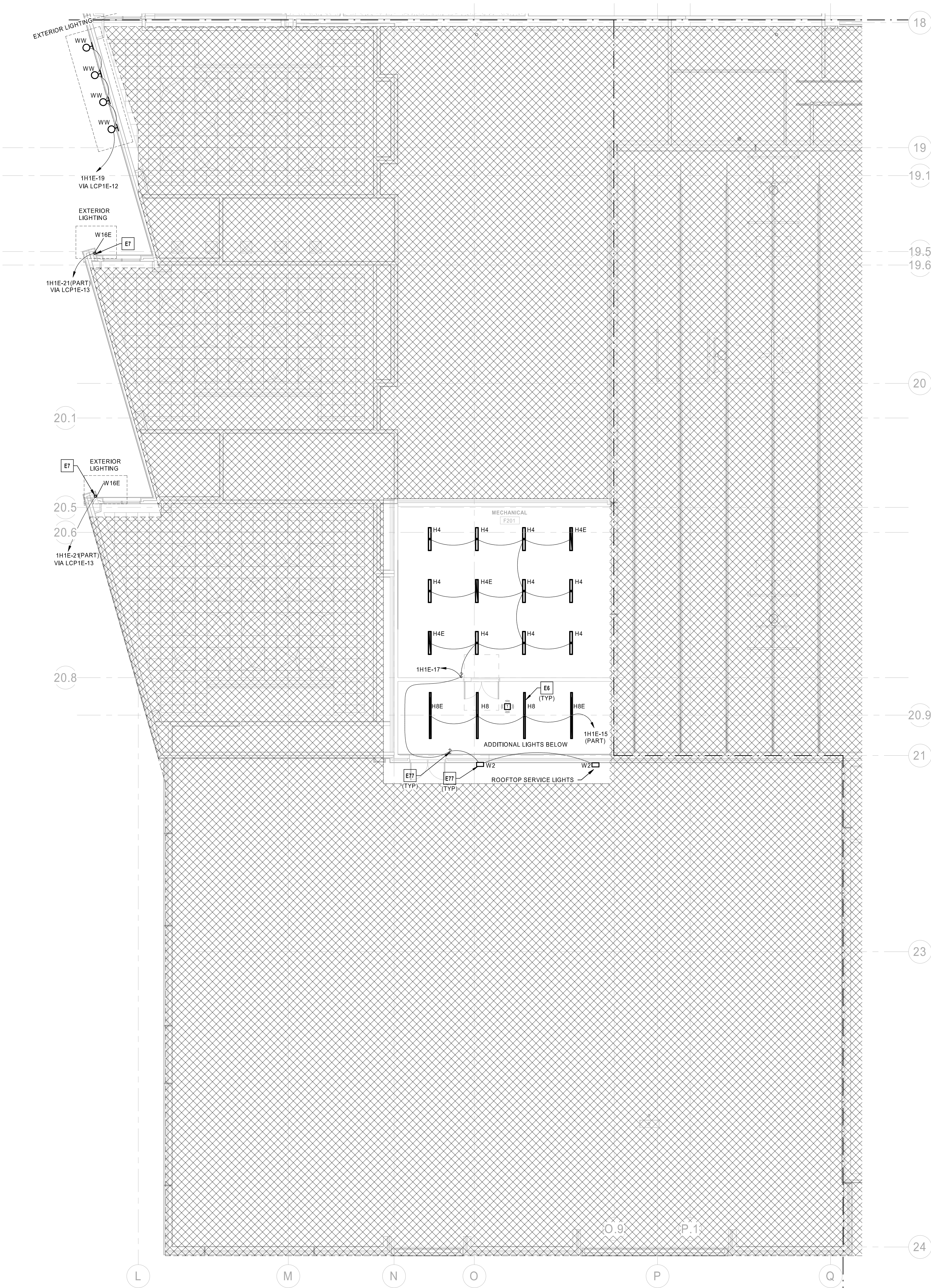
1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFERENCE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
2. FIXTURES LABELED "N1" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SAFETY.
3. INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SCHEME OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
4. EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE SWITCH. FOR ELECTRICAL TRIP AND OVERCURRENT PROTECTION, NETWORKED LIGHTING CONTROL PANEL REFER TO LIGHTING SCHEME OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

LIGHTING CONTROLS INTENT:

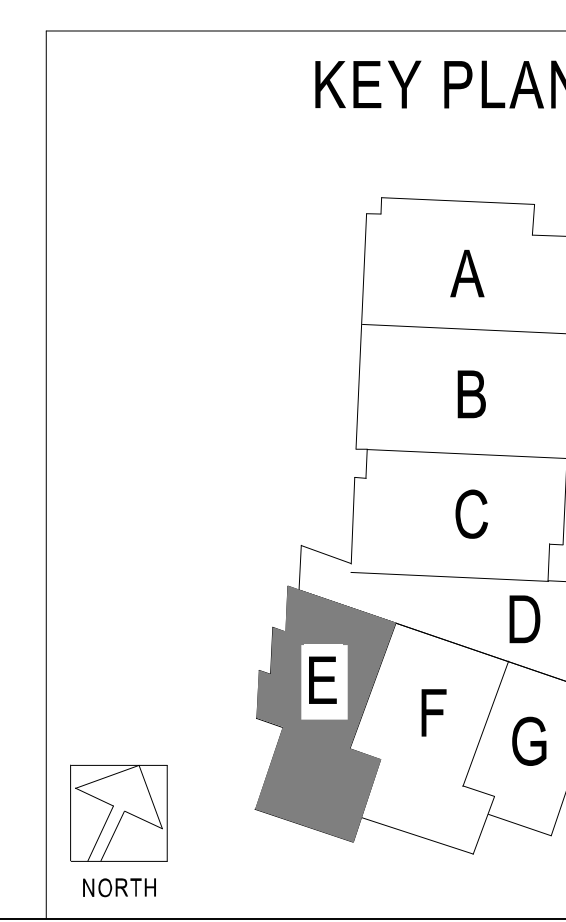
1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
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ELECTRICAL PLAN NOTES:

- E6 KEYED SWITCH, IN VESTIBULE F102 AND ASSOCIATED OCCUPANCY SENSORS, TO CONTROL LIGHTS IN VESTIBULE F102 AND LEVEL 1 & 2 ADJACENT STARWELL E1 G06.
- E7 EXTERIOR LIGHT FIXTURE TO BE FED VIA REMOTE 277 TO 24V DIMMABLE LED DRIVER (KELVIX HLVB6 OR EQUIVALENT) AND PROVIDED WITH REMOTE INVERTER (ASSURANCE EMERGENCY LIGHTING SH-125 OR EQUIVALENT) TO PROVIDE BATTERY BACKED EMERGENCY POWER. INVERTER AND LED DRIVER TO BE MOUNTED INSIDE BUILDING ABOVE ACCESSIBLE CEILING IN MUSIC CLASSROOMS.
- E77 LIGHTING ON ROOFTOP TO BE LOCALLY CONTROLLED VIA SWITCH AND IS INTENDED TO PROVIDE ILLUMINATION FOR AFTER HOURS SERVICING OF ELECTRICAL EQUIPMENT.



1 LIGHTING SECOND LEVEL RCP - AREA E
1/8" = 1'-0"

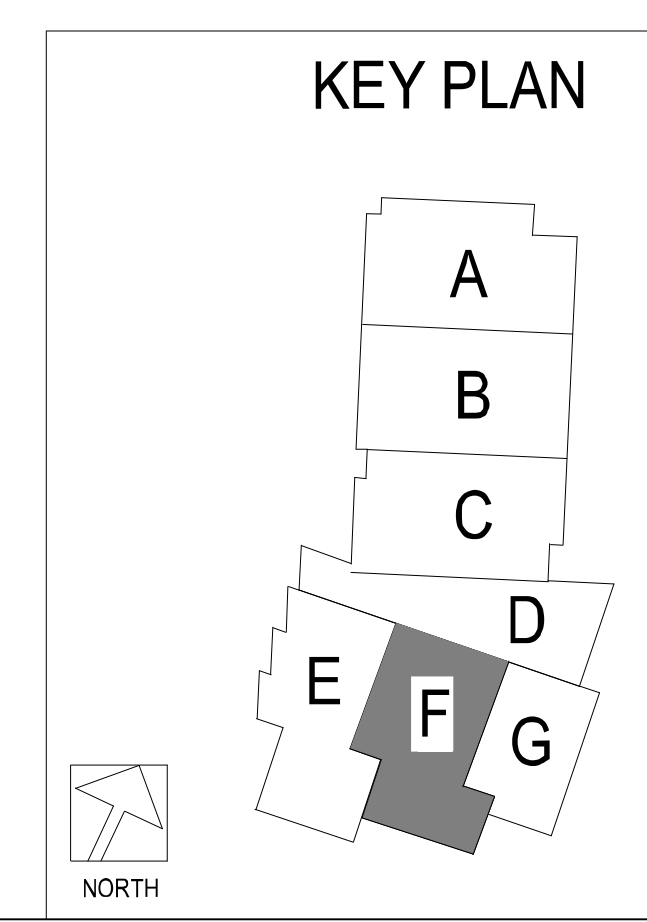


- LIGHTING CONTROLS INTENT:**
1. CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
 2. FIXTURES LABELED "NL" (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
 3. INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
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- ELECTRICAL PLAN NOTES:**
- E10 LOW VOLTAGE LIGHT SWITCHES FOR COMPETITION GYM F101 TO PROVIDE ON/OFF AND DIMMING FUNCTIONALITY FOR GYMNASIUM LIGHT FIXTURES. LIGHT SWITCH TO INTERFACE WITH LIGHTING CONTROL PANEL LCP1F LOCATED IN PLATFORM STORAGE D112A. CIRCUITS FOR GYMNASIUM LIGHT FIXTURES TO BE ROUTED THROUGH DIMMING MODULES IN LIGHTING CONTROL PANEL LCP1F AS SHOWN.
- E13 ICC 500 SHELTER GYM LIGHTING CONTROLS SHOWN ON LEVEL 1. DIMMABLE ROOM CONTROLLERS ARE SHOWN ON LEVEL 1.
- E14 FACE OF GYMNASIUM LIGHT FIXTURES TO BE MOUNTED FLUSH WITH THE BOTTOM OF ROOF TRUSSES/CONCRETE TEES. RE DETAIL 2/E5.02 FOR FIXTURE MOUNTING DETAIL. COORDINATE EXACT LOCATION OF GYMNASIUM LIGHT FIXTURES WITH GYMNASIUM RELATED EQUIPMENT: BASKETBALL HOOPS, CURTAINS, SPEAKERS AND MECHANICAL DUCT WORK.
- E32 STAGE AREA LIGHTING CONTROL SWITCH SHOWN ON E1.1F. LIGHTING TO BE ROUTED THROUGH LIGHTING CONTROL PANEL.



1 LIGHTING SECOND LEVEL RCP - AREA F
1/8" = 1'-0"



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/09/2020

DLR Group

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Missouri State Certificate of Authority #00393

STATE OF MISSOURI
Curtis A. Olds
NUMBER
PE-2018036640
PROFESSIONAL ENGINEER

Oct 8 2020

CURTIS A. OLDS
LICENSE # PE-2018036640

HENDERSON
ENGINEERS

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LENEXA, MO 64074-4300
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WWW.HENDERSONENGINEERS.COM

LEE'S SUMMIT MIDDLE SCHOOL DISTRICT
LEE'S SUMMIT R-7 SCHOOL DISTRICT
1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

LIGHTING CONTROLS INTENT:

- CORRIDORS AND PUBLIC SPACE LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL(S). A DATA CONNECTION WILL BE REQUIRED AT EACH LIGHTING CONTROL PANEL. MASTER LIGHTING CONTROL INTERFACE TO BE LOCATED IN MAIN OFFICE RECEPTION D100A.
- FIXTURES LABELED 'NL' (NIGHT LIGHT) AND EXIT SIGNS TO BE CONNECTED TO UNSWITCHED HOT CONDUCTORS. NIGHT LIGHTS TO OPERATE CONTINUOUSLY FOR CORRIDOR SECURITY.
- INDIVIDUAL NON-PUBLIC SPACE ROOMS TO BE CONTROLLED LOCALLY. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.
- EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THROUGH INDICATED NETWORKED LIGHTING CONTROL PANEL. EXTERIOR LIGHTING ZONES TO BE CONTROLLED VIA SINGLE ASTRONOMICAL TIME CLOCK AND PHOTOCELL VIA NETWORKED LIGHTING CONTROL PANEL. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR LIGHTING CONTROLS FUNCTIONALITY.

☐ **ELECTRICAL PLAN NOTES:**

E77 LIGHTING ON ROOFTOP TO BE LOCALLY CONTROLLED VIA SWITCH AND IS INTENDED TO PROVIDE ILLUMINATION FOR AFTER HOURS SERVICING OF ELECTRICAL EQUIPMENT.

The diagram illustrates the lighting layout for the second level, specifically Area G. It shows a grid of rooms and corridors. Fixtures are labeled H4, H4E, and H8E. A central corridor area is labeled MECHANICAL. A staircase is labeled STAIR G1. A rooftop service light is indicated. The diagram includes grid lines 18, 19, 19.1, 19.5, 19.6, 20, 20.1, 20.5, 20.6, 20.8, 20.9, 21, and 23. It also shows grid lines T.4, U, U.2, V, W, and X. A north arrow is located in the bottom right corner.

1 LIGHTING SECOND LEVEL RCP - AREA G
1/8" = 1'-0"

The key plan shows a grid of areas labeled A through G. Area G is highlighted in grey. A north arrow is located in the bottom left corner.

PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS

13-20102-00
LIGHTING
SECOND LEVEL
RCP - AREA G

E1.2G

POLE/MOUNTING HEIGHTS	
FIXTURE	HEIGHT
SP	+12'-0"
S2	+20'-0"
S3	+20'-0"
S4	+20'-0"
S5	+20'-0"
S4-2	+20'-0"
W1,W1E	+12'-0"
W2,W2E	+12'-0"
W8,W8E	CANOPY CEILING MOUNTED
W16,W16E	VERTICAL WALL MOUNTING
WW	18'-7"

NOTE: THE ABOVE HEIGHTS ARE TYPICAL PER FIXTURE UNLESS NOTED OTHERWISE ON PLANS.

- ELECTRICAL SHEET NOTES:**
- = SITE LIGHTING POLE DESIGNATION FOR VOLTAGE DROP CALCULATIONS ON THIS SHEET.
- COORDINATE EXACT POLE LOCATION WITH ARCHITECT, CIVIL, AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - UNDERGROUND CONDUIT ROUTING SHOWN FOR REFERENCE AND VOLTAGE DROP CALCULATIONS. COORDINATE EXACT ROUTING WITH OTHER UTILITIES, TREES, AND OTHER OBSTACLES. IF ROUTING DIFFERS FROM SHOWN, PROVIDE REVISED VOLTAGE DROP CALCULATIONS FOR REVIEW PRIOR TO INSTALLATION.

- SITE LIGHTING CIRCUIT LEGEND**
- # INDICATES NUMBER OF CIRCUITS IN A CONDUIT
_ INDICATES CIRCUIT(S) CONDUCTOR(S) SIZE AND CONFIGURATION
- 1-1/2" PVC CONDUIT WITH PULLSTRING FOR FUTURE
- (3) 2" PVC CONDUIT WITH PULLSTRING FOR FUTURE
- 1-1/2" PVC CONDUIT WITH (2) #8 THWN CU. & (1) #8 GND.
- 1-1/2" PVC CONDUIT WITH (4) #8 THWN CU & (1) #8 GND.

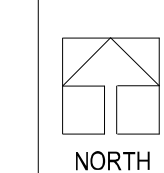


1 ELECTRICAL SITE PLAN - SOUTH
1" = 40'-0"

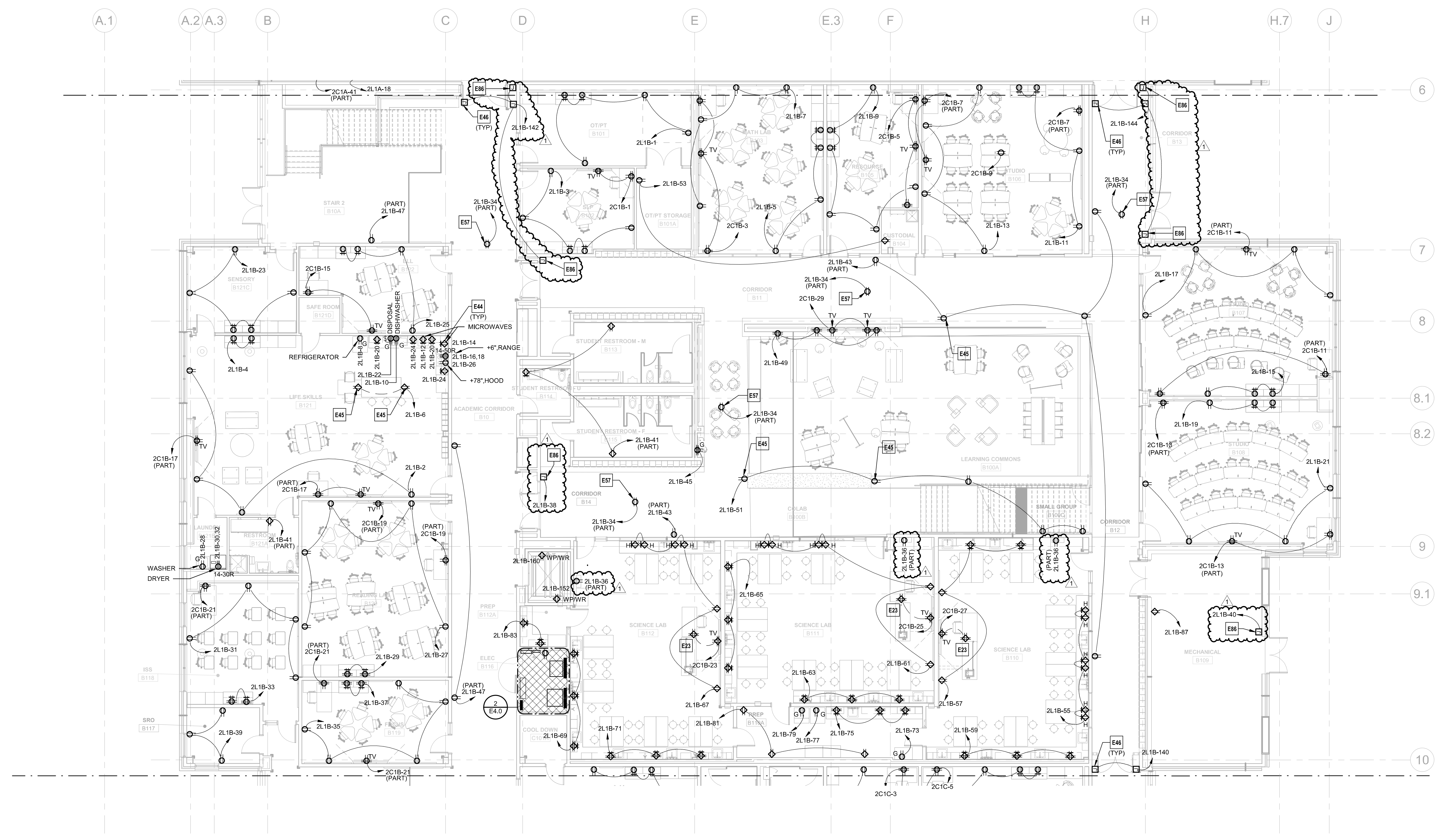


E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.

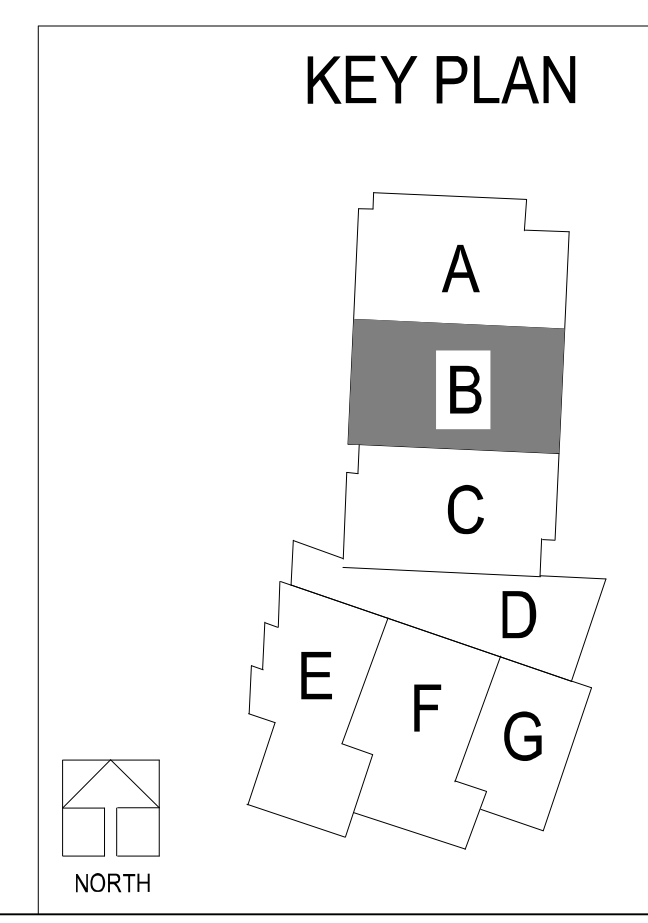
E96 PROVIDE EMERGENCY SHUTOFF BUTTON(S), CLEARLY LABELED, FOR THE PURPOSES OF INTERRUPTING POWER TO PANEL 'SHOP' VIA PANEL SHUNT-TRIP MAIN CIRCUIT BREAKER. COORDINATE LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.



- ELECTRICAL PLAN NOTES:**
- E23 CONTRACTOR TO PROVIDE (1) 3/4" CONDUIT FOR POWER, (1) CONDUIT FOR DATA, AND (1) CONDUIT FOR HDMI CONNECTIONS STUBBED UP AT FURNITURE. HDMI CONDUIT TO BE ROUTED TO ASSOCIATED HDMI BOX FOR TV. COORDINATE BOX INSTALLATION REQUIREMENTS AND EXACT LOCATION OF CONDUIT STUB-UPS WITH ARCHITECTURAL AND MILL WORK PLANS. REFER TO TECHNOLOGY PLANS FOR TECHNOLOGY CONDUIT SIZING AND INSTALLATION REQUIREMENTS.
- E44 CONTRACTOR TO COORDINATE EXACT ROUGH-IN LOCATIONS FOR FOOD PREPARATION AREAS WITH ARCHITECTURAL PLANS, MILLWORK PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- E45 RECEPTACLE MOUNTED TO FURNITURE OR MILLWORK ISLAND OR HALF HEIGHT PARTITION. CONTRACTOR TO PROVIDE 3/4" CONDUIT UNDERSLAB FOR RECEPTACLE POWER. COORDINATE EXACT STUB UP LOCATIONS AND INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS. COORDINATE WITH TECHNOLOGY PLANS IF ADDITIONAL CONDUITS FOR LOW VOLTAGE ARE REQUIRED. PROVIDE ADDITIONAL CONDUITS AS NEEDED FOR LOW VOLTAGE CONNECTIONS.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR. ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E58 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.

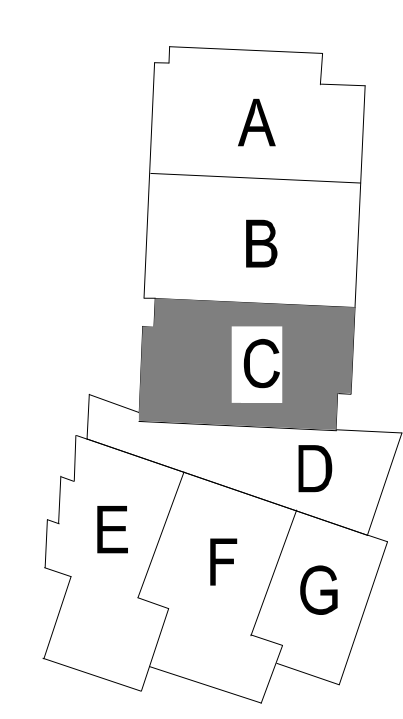


1 POWER FIRST LEVEL PLAN - AREA B
1/8" = 1'-0"

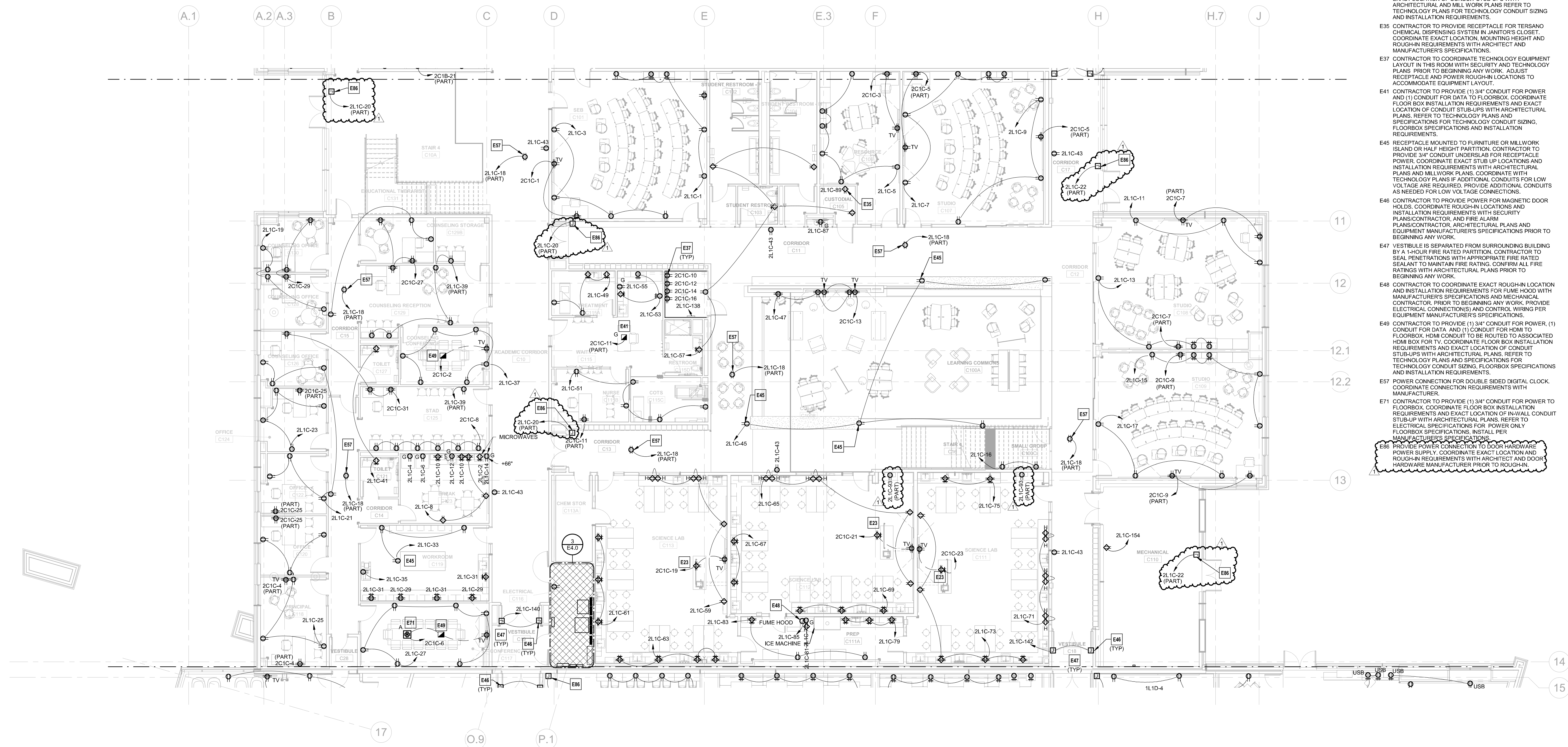


- ELECTRICAL PLAN NOTES:**
- E23 CONTRACTOR TO PROVIDE (1) 3/4" CONDUIT FOR POWER, (1) CONDUIT FOR DATA, AND (1) CONDUIT FOR HDMI CONNECTIONS STUBBED UP AT FURNITURE. HDMI CONDUIT TO BE ROUTED TO ASSOCIATED HDMI BOX FOR TV. COORDINATE BOX INSTALLATION REQUIREMENTS AND EXACT LOCATION OF CONDUIT STUB-UPS WITH ARCHITECTURAL AND MILL WORK PLANS REFER TO TECHNOLOGY PLANS FOR TECHNOLOGY CONDUIT SIZING AND INSTALLATION REQUIREMENTS.
- E35 CONTRACTOR TO PROVIDE RECEPTACLE FOR TERSANO CHEMICAL DISPENSING SYSTEM IN JANITOR'S CLOSET. COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND MANUFACTURER'S SPECIFICATIONS.
- E37 CONTRACTOR TO COORDINATE TECHNOLOGY EQUIPMENT LAYOUT IN THIS ROOM WITH SECURITY AND TECHNOLOGY PLANS. PRIOR TO BEGINNING ANY WORK, ADJUST RECEPTACLE AND POWER ROUGH-IN LOCATIONS TO ACCOMMODATE EQUIPMENT LAYOUT.
- E41 CONTRACTOR TO PROVIDE (1) 3/4" CONDUIT FOR POWER AND (1) CONDUIT FOR DATA TO FLOORBOX. COORDINATE FLOOR BOX INSTALLATION REQUIREMENTS AND EXACT LOCATION OF CONDUIT STUB-UPS WITH ARCHITECTURAL PLANS. REFER TO TECHNOLOGY PLANS AND SPECIFICATIONS FOR TECHNOLOGY CONDUIT SIZING, FLOORBOX SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
- E45 RECEPTACLE MOUNTED TO FURNITURE OR MILLWORK ISLAND OR HALF HEIGHT PARTITION. CONTRACTOR TO PROVIDE 3/4" CONDUIT UNDERSLAB FOR RECEPTACLE POWER. COORDINATE EXACT STUB UP LOCATIONS AND INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS. COORDINATE WITH TECHNOLOGY PLANS IF ADDITIONAL CONDUITS FOR LOW VOLTAGE ARE REQUIRED. PROVIDE ADDITIONAL CONDUITS AS NEEDED FOR LOW VOLTAGE CONNECTIONS.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E47 VESTIBULE IS SEPARATED FROM SURROUNDING BUILDING BY A 1-HOUR FIRE RATED PARTITION. CONTRACTOR TO SEAL PENETRATIONS WITH APPROPRIATE FIRE RATED SEALANT TO MAINTAIN FIRE RATING. CONFIRM ALL FIRE RATINGS WITH ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK.
- E48 CONTRACTOR TO COORDINATE EXACT ROUGH-IN LOCATION AND INSTALLATION REQUIREMENTS FOR FUME HOOD WITH MANUFACTURER'S SPECIFICATIONS AND MECHANICAL CONTRACTOR. PRIOR TO BEGINNING ANY WORK, PROVIDE ELECTRICAL CONNECTION(S) AND CONTROL WIRING PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- E49 CONTRACTOR TO PROVIDE (1) 3/4" CONDUIT FOR POWER, (1) CONDUIT FOR DATA, AND (1) CONDUIT FOR HDMI TO FLOORBOX. HDMI CONDUIT TO BE ROUTED TO ASSOCIATED HDMI BOX FOR TV. COORDINATE FLOOR BOX INSTALLATION REQUIREMENTS AND EXACT LOCATION OF CONDUIT STUB-UPS WITH ARCHITECTURAL PLANS. REFER TO TECHNOLOGY PLANS AND SPECIFICATIONS FOR TECHNOLOGY CONDUIT SIZING, FLOORBOX SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E71 CONTRACTOR TO PROVIDE (1) 3/4" CONDUIT FOR POWER TO FLOORBOX. COORDINATE FLOOR BOX INSTALLATION REQUIREMENTS AND EXACT LOCATION OF IN-WALL CONDUIT STUB-UP WITH ARCHITECTURAL PLANS. REFER TO ELECTRICAL SPECIFICATIONS FOR POWER ONLY FLOORBOX SPECIFICATIONS. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.

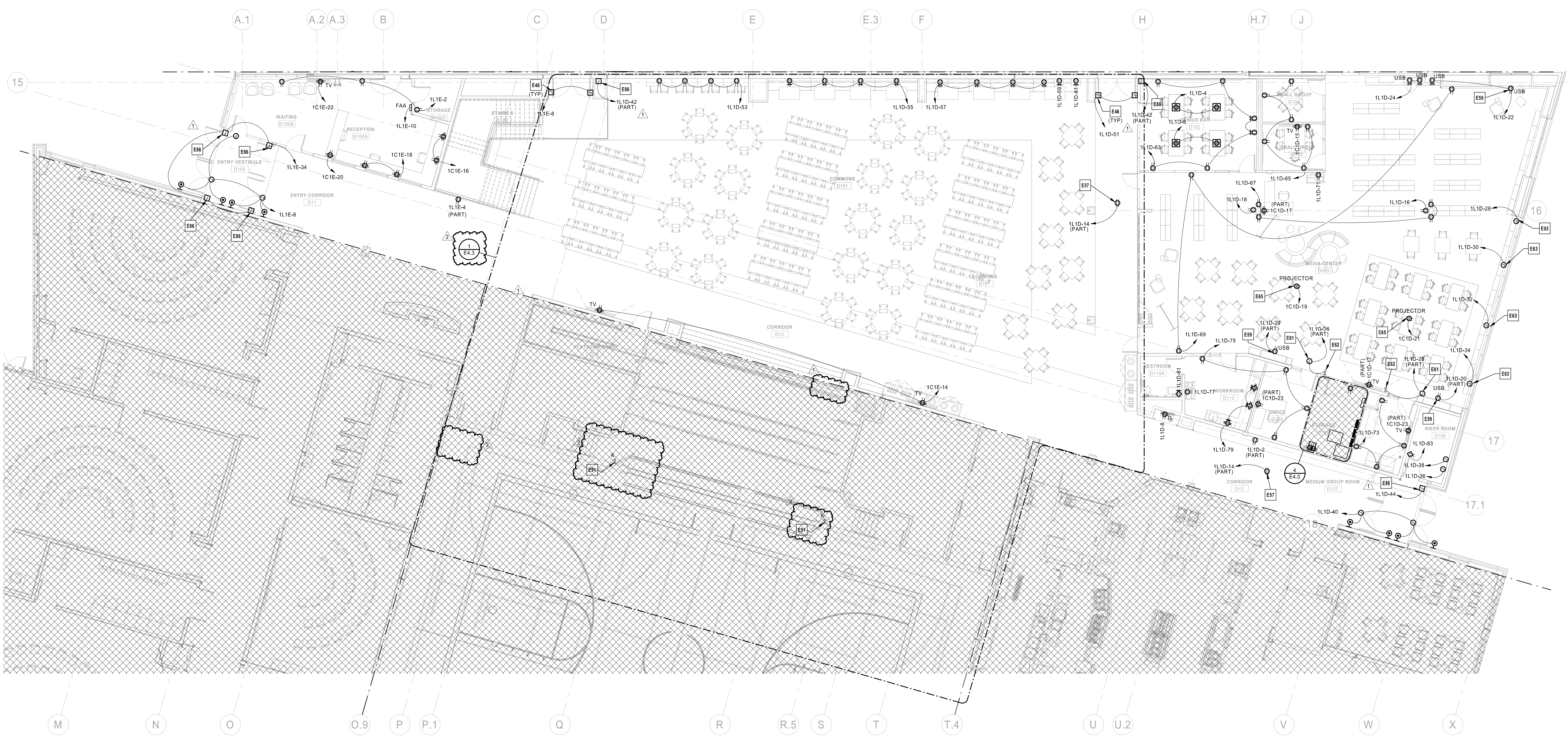
KEY PLAN



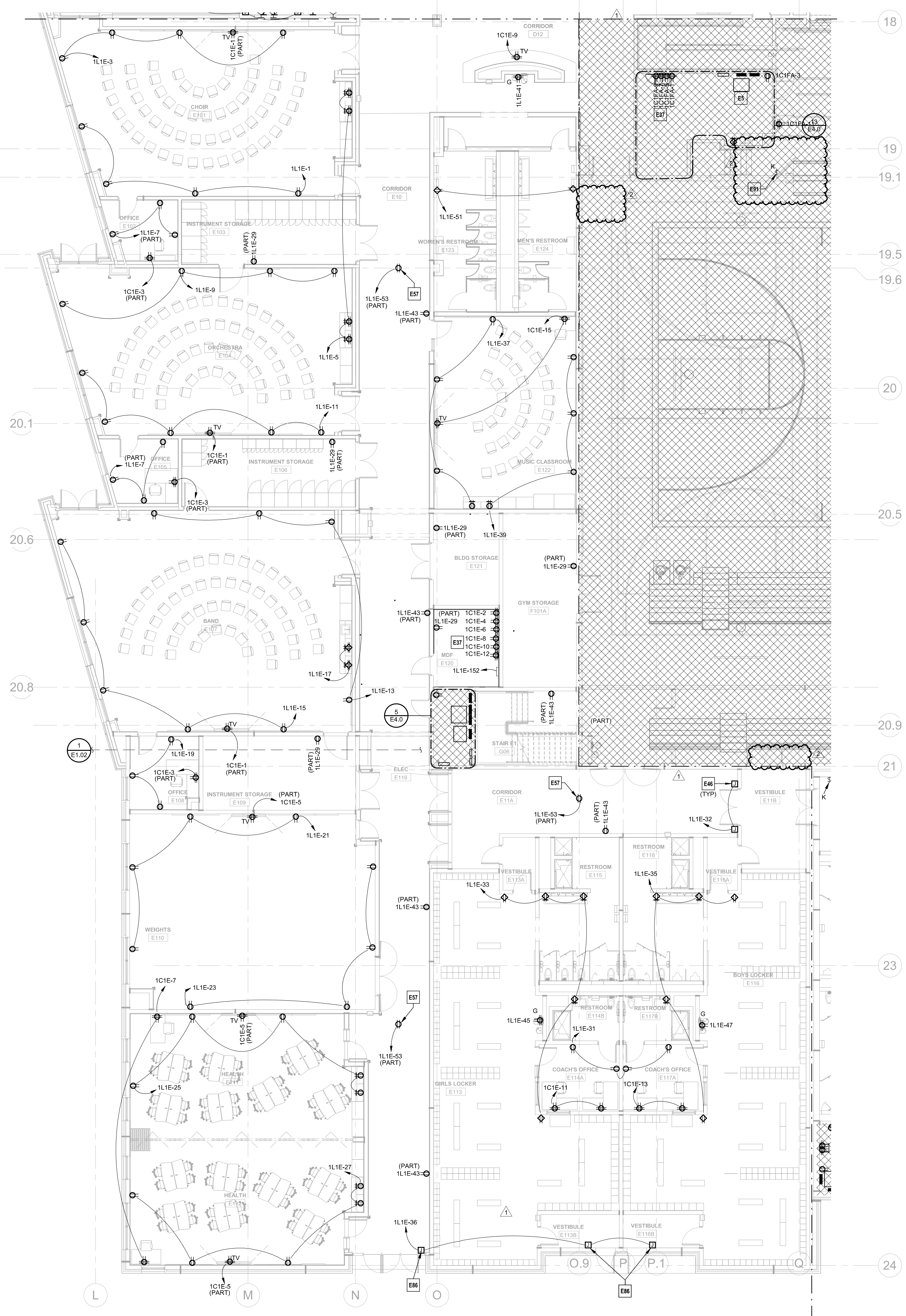
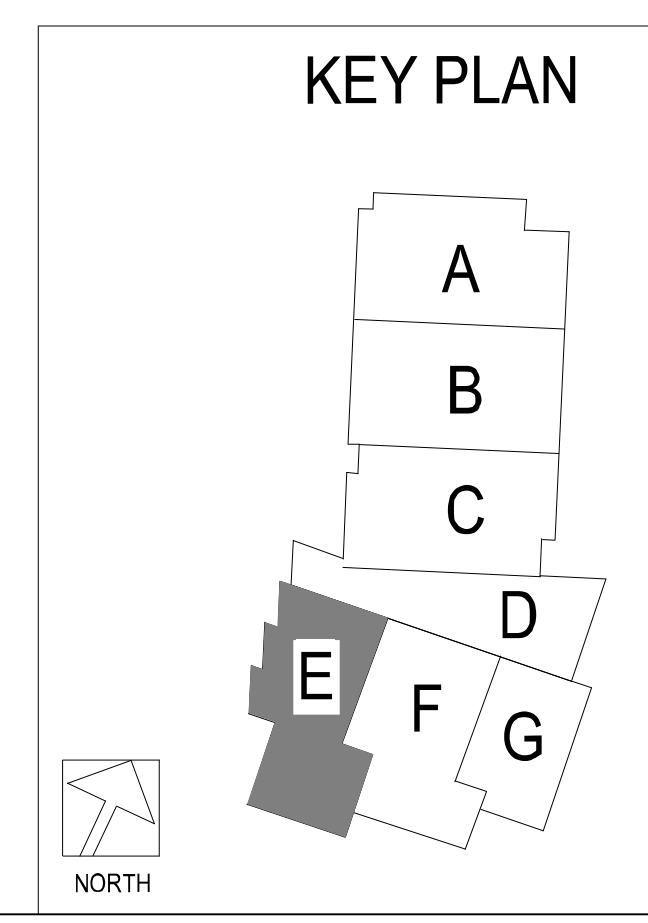
POWER FIRST LEVEL PLAN - AREA C
1/8" = 1'-0"



- ELECTRICAL PLAN NOTES:**
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR, ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E59 RECEPTACLE TO BE INSTALLED WOOD PANEL BELOW BENCH SEATING. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR ROUGH-IN.
- E61 POWER CONNECTION FOR PROJECTOR SCREEN MOTOR. COORDINATE FINAL LOCATION WITH ARCHITECT AND TECHNOLOGY PLANS. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND TECHNOLOGY PLAN REQUIREMENTS PRIOR TO ROUGH-IN.
- E62 CONTROL SWITCH TO OPERATE PROJECTOR SCREEN MOTOR. COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND TECHNOLOGY PLAN REQUIREMENTS PRIOR TO ROUGH-IN.
- E63 CONTRACTOR TO ROUGH-IN FOR POWER AND CONTROLS FOR MOTORIZED BLINDS. COORDINATE EXACT NUMBER OF CONNECTIONS, NUMBER OF CIRCUITS NEEDED, AND EXACT ROUGH-IN WITH BLINDS MANUFACTURER'S SPECIFICATIONS. CIRCUIT IS TO BE ROUTED THROUGH RELAY PANEL IN ROOM D108. REFER TO DETAIL 4 ON SHEET E4.0 FOR MORE INFORMATION.
- E65 COORDINATE FINAL LOCATION OF PROJECTOR WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE INSTALLATION AND DEVICE FINISH WITH CEILING.
- E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.
- E89 COORDINATE EXACT LOCATION OF EQUIPMENT MANUFACTURER PROVIDED SKYFOLD WALL LOW VOLTAGE OPEN/CLOSE KEYED SWITCHES WITH ARCHITECT PRIOR TO BEGINNING ANY WORK. RE: DETAIL 7/E502



- ELECTRICAL PLAN NOTES:**
- E5 TRANSFORMER TO BE SUSPENDED. RE: 2/E5.01 FOR SUSPENDED MOUNTING DETAIL. WHERE SHOWN ADJACENT TO TRANSFORMER, THIS TRANSFORMER SHALL BE SUSPENDED ABOVE.
- E37 CONTRACTOR TO COORDINATE TECHNOLOGY EQUIPMENT LAYOUT IN THIS ROOM WITH SECURITY AND TECHNOLOGY PLANS. PRIOR TO BEGINNING ANY WORK, ADJUST RECEPTACLE AND POWER ROUGH-IN LOCATIONS TO ACCOMMODATE EQUIPMENT LAYOUT.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR, ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.
- E91 COORDINATE EXACT LOCATION OF EQUIPMENT MANUFACTURER PROVIDED SKYFOLD WALL LOW VOLTAGE OPEN/CLOSE KEYED SWITCHES WITH ARCHITECT PRIOR TO BEGINNING ANY WORK. RE: DETAIL 7/E502



POWER FIRST LEVEL PLAN - AREA E
1/8" = 1'-0"

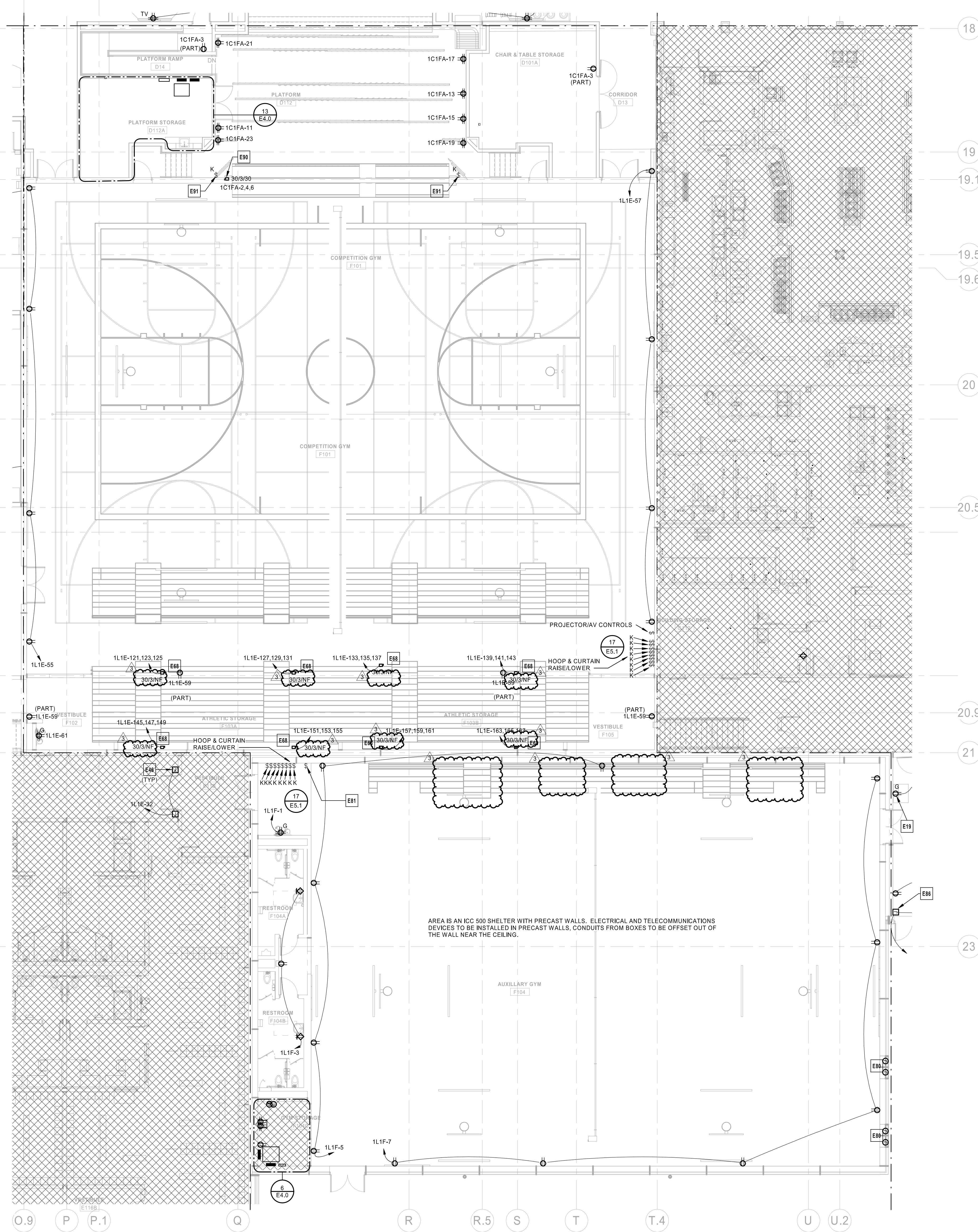
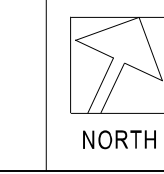
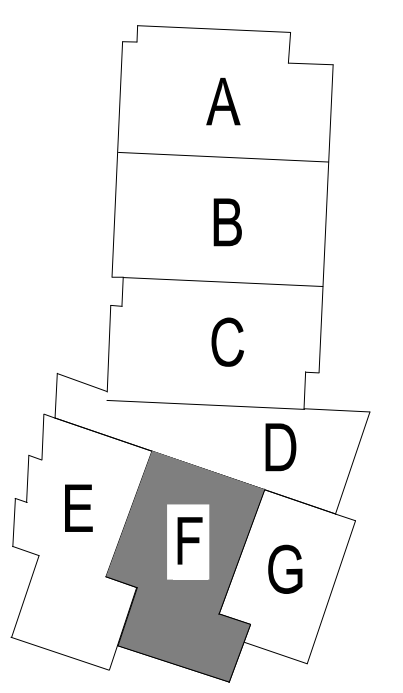
PRECAST ROUGH-IN NOTES:

1. COORDINATE ALL DEVICE LOCATIONS PRIOR TO BEGINNING ANY WORK. DEVICE LOCATIONS SHOULD BE ADJUSTED SO THAT THEY DO NOT FALL ON PRECAST SEAMS.
2. GYMNASIUM IS PRE-CAST CONCRETE CONSTRUCTION AND TO BE ROUGH-IN BY ELECTRICAL CONTRACTOR. ALL DEVICE FINISH RINGS SHALL BE FLUSH WITH THE SURFACE OF THE CONCRETE.
3. CONDUIT ROUGH-INS FOR ELECTRICAL LIGHTING AND POWER, EXIT SIGNS, FIRE ALARM, TELECOMMUNICATIONS, AUDIO-VISUAL, SCOREBOARD, AND DOOR SECURITY EQUIPMENT SHALL BE ROUTED VERTICALLY IN PRECAST WALL AND STUBBED INTO GYMNASIUM NEAR CEILING (BY OTHERS) FOR CONNECTION(S) TO WIRE WAYS AND/OR JUNCTION BOXES.
4. EXTERIOR LIGHT FIXTURE CIRCUITS TO BE ROUTED TO LIGHTING CONTROL PANEL.
5. COORDINATE EXACT ROUGH-IN LOCATIONS FOR OTHER DISCIPLINES. REFER TO MECHANICAL PLANS FOR MECHANICAL CONTROLS DEVICE ROUGH-IN LOCATIONS AND REQUIREMENTS. REFER TO FIRE PROTECTION PLANS FOR FIRE PROTECTION DEVICE. REFER TO TECHNOLOGY PLANS FOR AUDIO VISUAL AND TELECOMMUNICATIONS DEVICE ROUGH-IN LOCATIONS AND REQUIREMENTS. REFER TO SECURITY PLANS FOR SECURITY IN DEVICE ROUGH-IN LOCATIONS AND REQUIREMENTS.
6. SCORE BOARD ROUGH-IN REQUIREMENTS TO BE COORDINATED WITH SCOREBOARD MANUFACTURER'S SPECIFICATIONS AND ARCHITECT. PROVIDE 1" CONDUIT FOR CONTROLS.
7. REFER TO ELECTRICAL NOTES FOR ADDITIONAL.

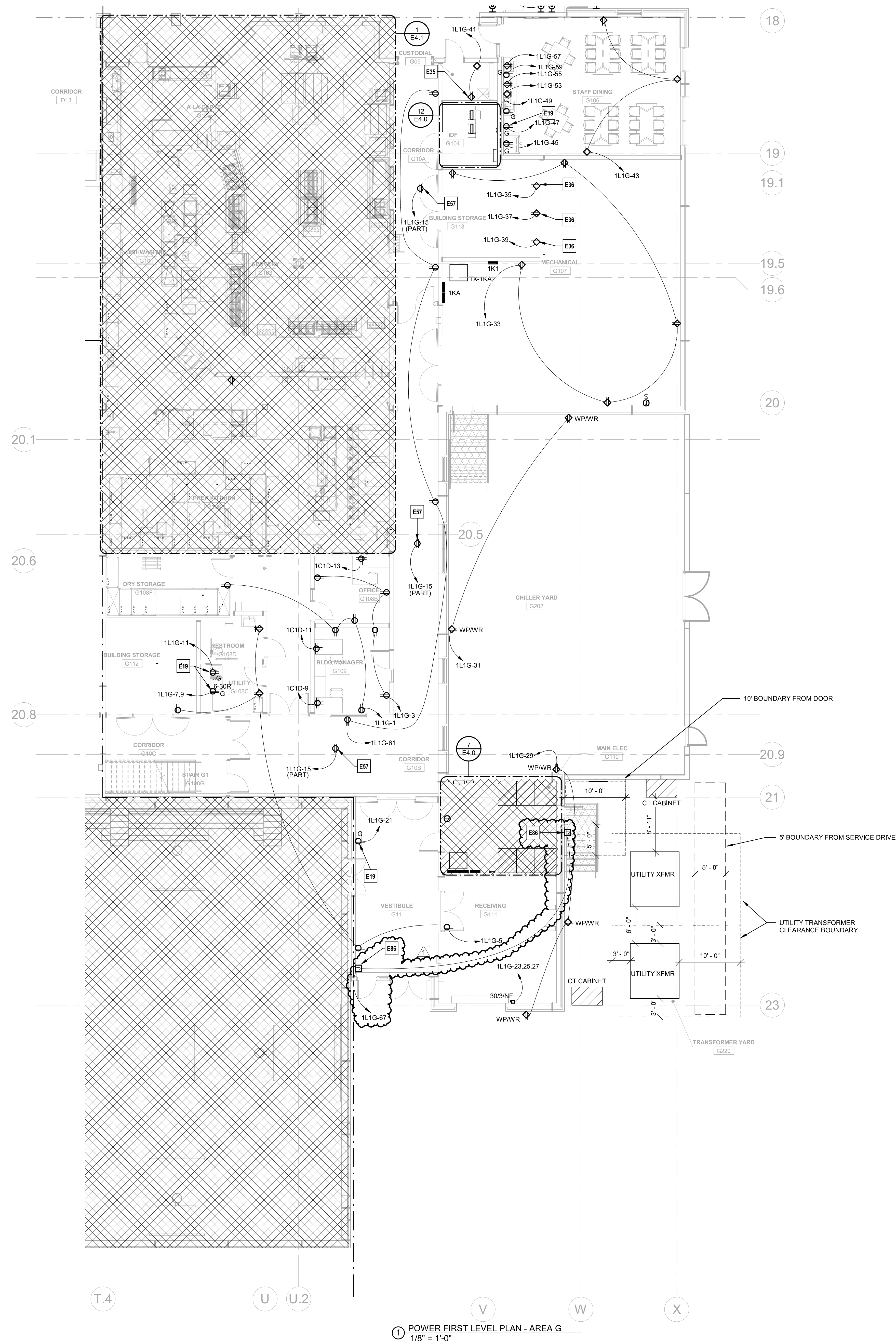
ELECTRICAL PLAN NOTES:

- E19 POWER CONNECTION FOR OWNER PROVIDED EQUIPMENT. CONFIRM REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR. ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E68 CONTRACTOR TO PROVIDE POWER FOR MOTORIZED BLEACHERS. COORDINATE EQUIPMENT SELECTION AND CONTROLS LOCATION WITH ARCHITECT. COORDINATE NUMBER OF CONNECTIONS AND INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- E80 APPROXIMATE LOCATION OF LOW VOLTAGE ROUGH-IN FOR WALL MOUNTED ICC 500 SHELTER LOUVERS. CONTRACTOR TO PROVIDE CONDUITS, AND JUNCTION BOXES FOR EQUIPMENT CONNECTIONS. COORDINATE QUANTITY OF CONDUITS AND JUNCTION BOXES. ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH MECHANICAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK. CONDUITS TO BE INSTALLED IN PRECAST WALL AND BOX TO BE MOUNTED UNDER LOUVER.
- E81 APPROXIMATE LOCATION OF LOW VOLTAGE SWITCH FOR MANUAL OPERATION OF GYMNASIUM LOUVERS. COORDINATE EQUIPMENT SELECTION, EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH MECHANICAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E90 SKYFOLD MOTORIZED PARTITION MOTOR SIZE HAS NOT BEEN PROVIDED TO ENGINEER. CONTRACTOR TO COORDINATE EXACT EQUIPMENT SELECTION AND ELECTRICAL INFORMATION WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PROVIDE ALTERATIONS TO WIRE SIZE, BREAKER SIZE, FUSED DISCONNECT AND FUSES SIZES AS NEEDED. COORDINATE ALL INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. RE: DETAIL 7/E502.
- E91 COORDINATE EXACT LOCATION OF EQUIPMENT MANUFACTURER PROVIDED SKYFOLD WALL LOW VOLTAGE OPEN/CLOSE KEYED SWITCHES WITH ARCHITECT PRIOR TO BEGINNING ANY WORK. RE: DETAIL 7/E502.

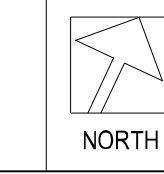
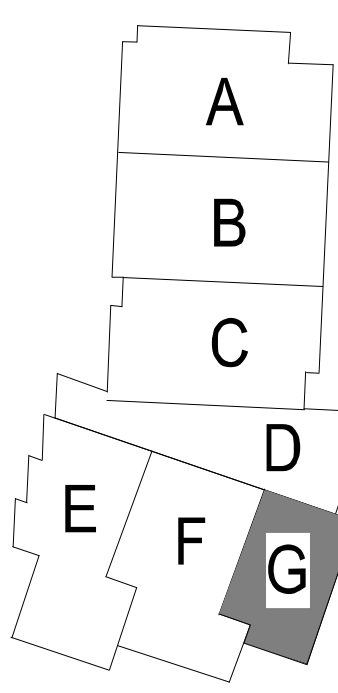
KEY PLAN



- ELECTRICAL PLAN NOTES:**
- E19 POWER CONNECTION FOR OWNER PROVIDED EQUIPMENT. CONFIRM REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
- E35 CONTRACTOR TO PROVIDE RECEPTACLE FOR TERSANO CHEMICAL DISPENSING SYSTEM IN JANITOR'S CLOSET. COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND MANUFACTURER'S SPECIFICATIONS.
- E36 CONTRACTOR TO PROVIDE ROUGH-IN FOR FLOOR CLEANING EQUIPMENT CHARGING STATIONS. COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND MANUFACTURER'S SPECIFICATIONS.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.



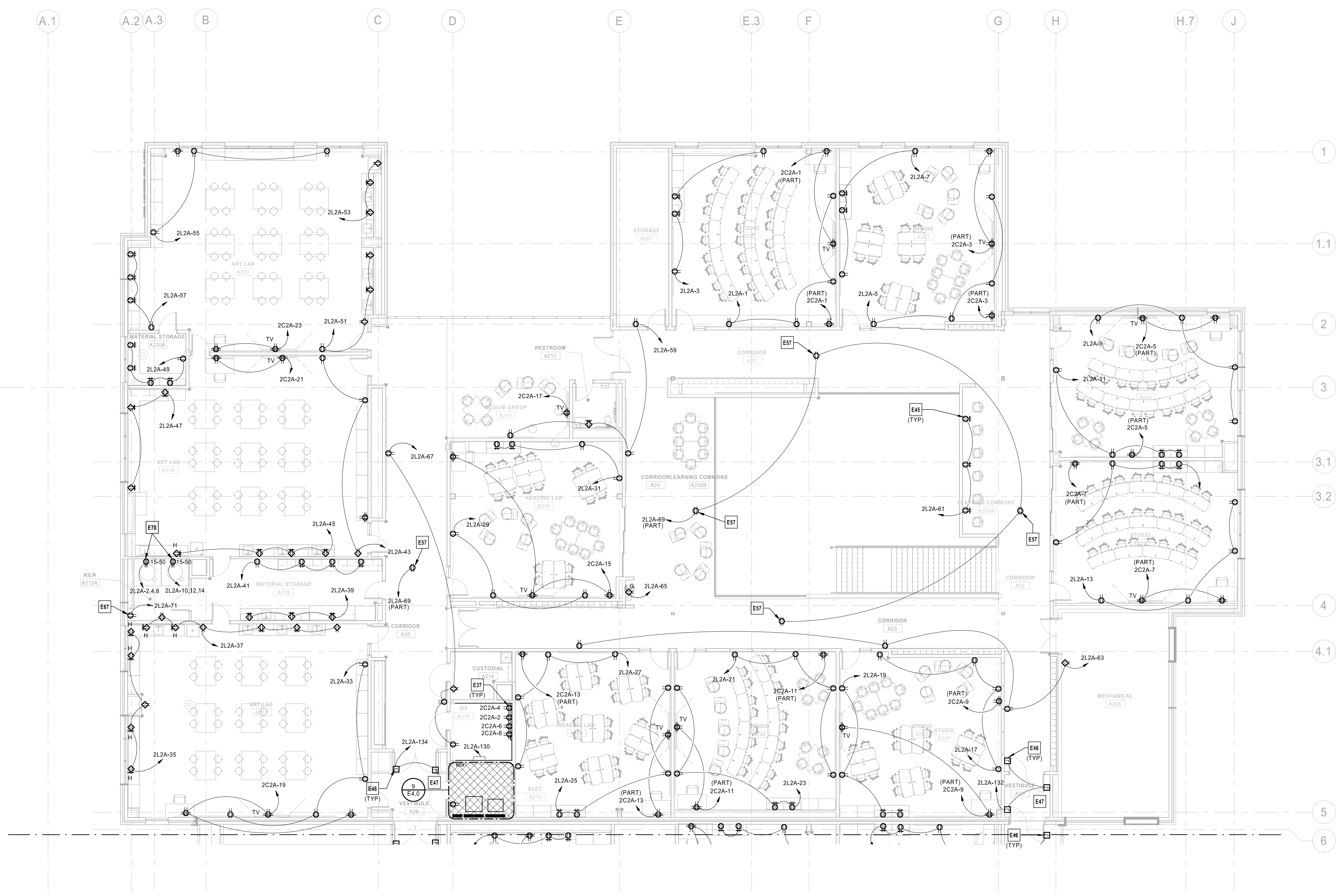
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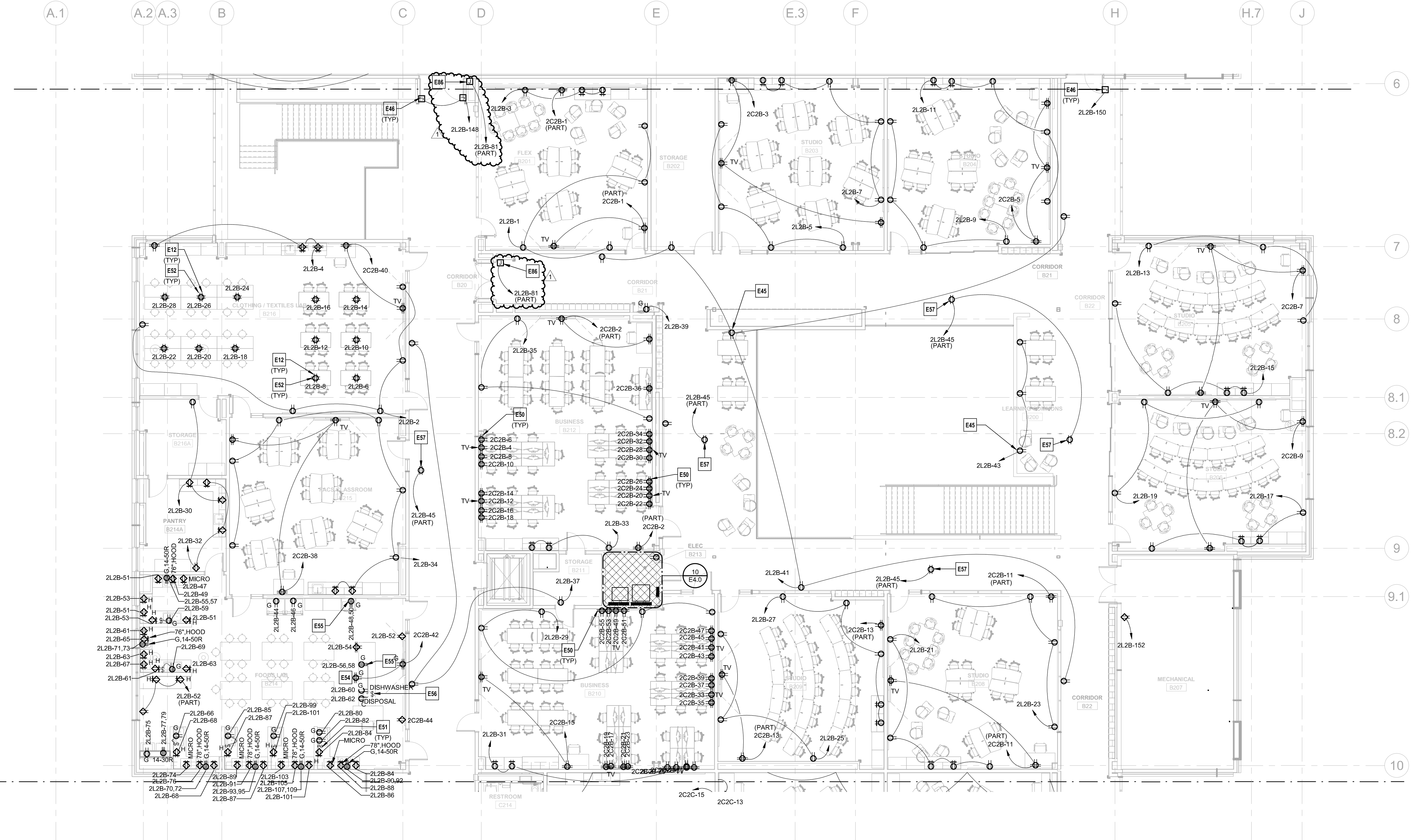
POWER FIRST LEVEL PLAN - AREA G
1/8" = 1'-0"

ELECTRICAL PLAN NOTES:

- E37 CONTRACTOR TO COORDINATE TECHNOLOGY EQUIPMENT LAYOUT IN THIS ROOM WITH SECURITY AND TECHNOLOGY PLANS PRIOR TO BEGINNING ANY WORK. ADJUST RECEPTACLE AND POWER ROUGH-IN LOCATIONS TO ACCOMMODATE EQUIPMENT LAYOUT.
- E45 RECEPTACLE MOUNTED TO FURNITURE OR MILLWORK ISLAND OR HALF HEIGHT PARTITION. CONTRACTOR TO PROVIDE 3/4" CONDUIT UNDERSLAB FOR RECEPTACLE POWER. COORDINATE EXACT STUB UP LOCATIONS AND INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS. COORDINATE WITH TECHNOLOGY PLANS IF ADDITIONAL CONDUITS FOR LOW VOLTAGE ARE REQUIRED. PROVIDE ADDITIONAL CONDUITS AS NEEDED FOR LOW VOLTAGE CONNECTIONS.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR, ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E47 VESTIBULE IS SEPARATED FROM SURROUNDING BUILDING BY A 1-HOUR FIRE RATED PARTITION. CONTRACTOR TO SEAL PENETRATIONS WITH APPROPRIATE FIRE RATED SEALANT TO MAINTAIN FIRE RATING. CONFIRM ALL FIRE RATINGS WITH ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E67 POWER CONNECTION FOR KILN VENT FAN. COORDINATE FINAL LOCATION WITH ARCHITECT AND MANUFACTURER.
- E70 POWER CONNECTION FOR KILN. COORDINATE FINAL LOCATION AND REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.

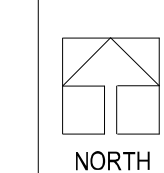
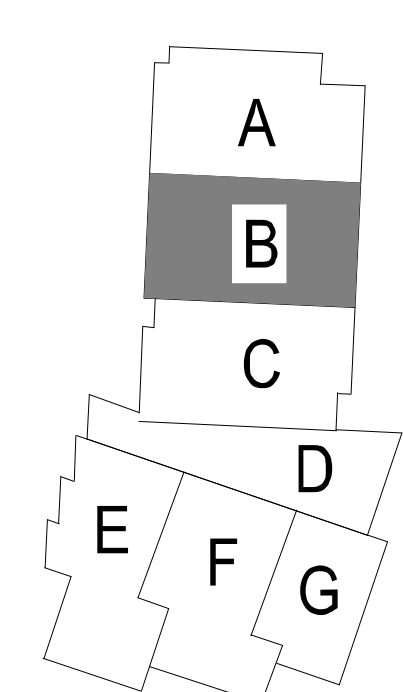


- ELECTRICAL PLAN NOTES:**
- E12 CORD REEL, FLEXIBLE CEILING MOUNT, BLACK HOUSING, BLACK CORD, TRIPLE TAP RECEPTACLE, NO GREATER THAN 10 LBS, 12/3, 15A, HUBBELL HBLC40123TT OR APPROVED EQUIVALENT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER.
- E45 RECEPTACLE MOUNTED TO FURNITURE OR MILLWORK ISLAND OR HALF HEIGHT PARTITION. CONTRACTOR TO PROVIDE 3/4" CONDUIT UNDERSLAB FOR RECEPTACLE POWER. COORDINATE EXACT STUB UP LOCATIONS AND INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS. COORDINATE WITH TECHNOLOGY PLANS IF ADDITIONAL CONDUITS FOR LOW VOLTAGE ARE REQUIRED. PROVIDE ADDITIONAL CONDUITS AS NEEDED FOR LOW VOLTAGE CONNECTIONS.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E50 BUSINESS CLASSROOM COMPUTER FURNITURE REQUIREMENTS ARE NOT FINALIZED. DESIGN IS SUBJECT TO CHANGE. INITIAL DESIGN IS (3) QUAD RECEPTACLES MOUNTED AT STANDARD OUTLET HEIGHT FOR COMPUTER POWER AND (1) WALL MOUNTED TV. CONFIRM POWER REQUIREMENTS AND ROUGH-IN LOCATIONS WITH FURNITURE PLANS AND ARCHITECTURAL DRAWINGS PRIOR TO BEGINNING ANY WORK.
- E51 MOUNT SWITCH FOR FOODS LAB GARBAGE DISPOSALS HORIZONTALLY IN BACKSPLASH
- E52 CONTRACTOR TO COORDINATE NUMBER OF CORD REELS NEEDED FOR CLOTHING/TEXTILES LAB STUDENT DESKS.
- E54 CONTRACTOR TO COORDINATE ISLAND EQUIPMENT SELECTION AND ELECTRICAL REQUIREMENTS, LAYOUT AND EXACT CONDUIT STUB UP LOCATIONS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS PRIOR TO BEGINNING ANY WORK.
- E55 COOKING APPLIANCE EQUIPMENT SELECTION HAS NOT BEEN MADE AVAILABLE TO ENGINEER. CONTRACTOR TO CONFIRM EQUIPMENT ELECTRICAL REQUIREMENTS (OCBP, BREAKER SIZE, # OF CONDUCTORS, J-BOX SIZE, CONDUIT SIZE AND CONNECTION TYPE). IF EQUIPMENT IS CORD AND PLUG PROVIDE GFCI CIRCUIT BREAKER AS INDICATED. IF EQUIPMENT IS HARDWIRED GFCI PROTECTION IS NOT REQUIRED.
- E56 CONTRACTOR TO PROVIDE SWITCH FOR DISPOSAL VIA SURFACE MOUNTED CONDUIT AND J-BOX WITH INDUSTRIAL STYLE COVER. SWITCH TO BE LOCATED UNDER THE SINK NEAR MILLWORK DOORS OCCUPANT CONVENIENCE.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E58 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.

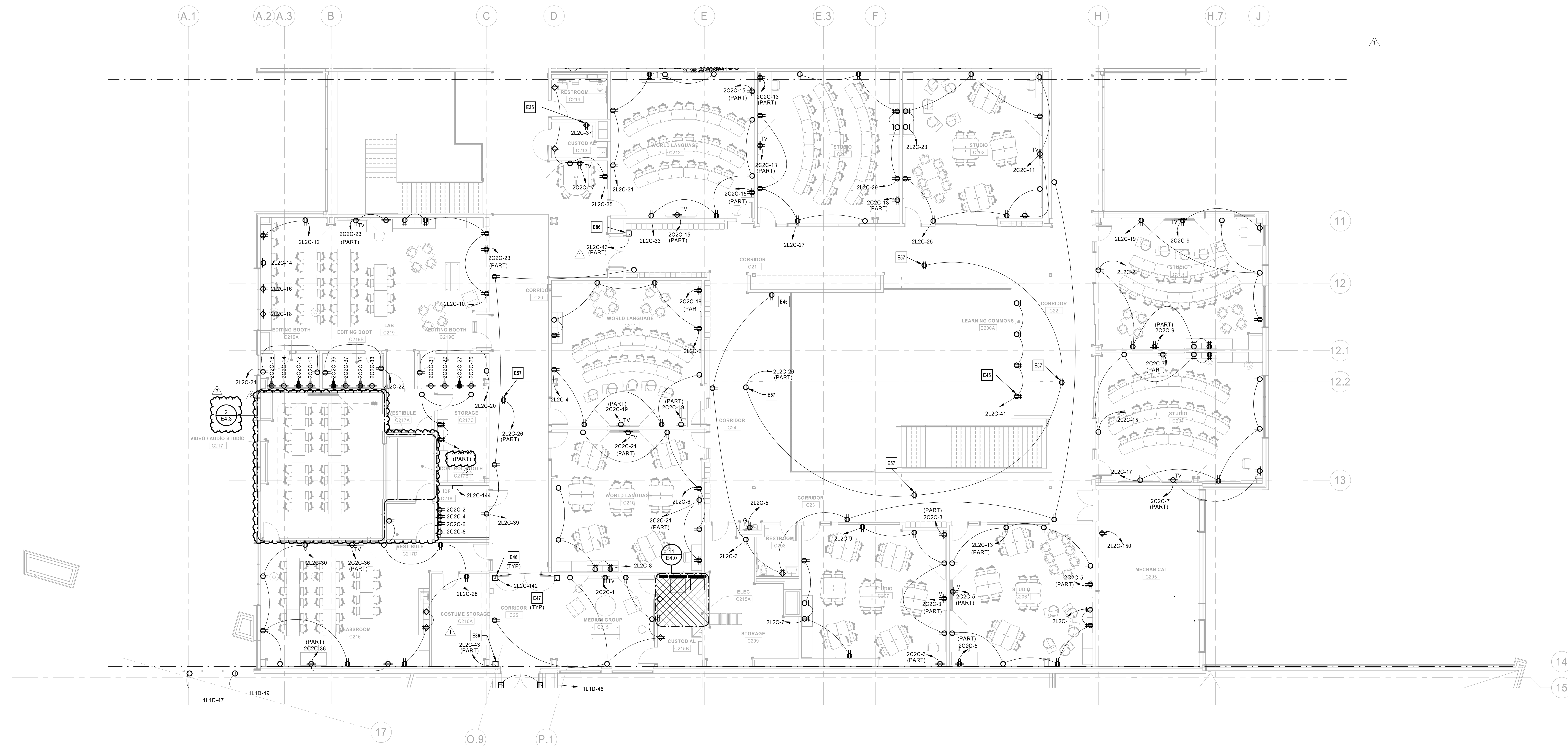


POWER SECOND LEVEL PLAN - AREA B
1/8" = 1'-0"

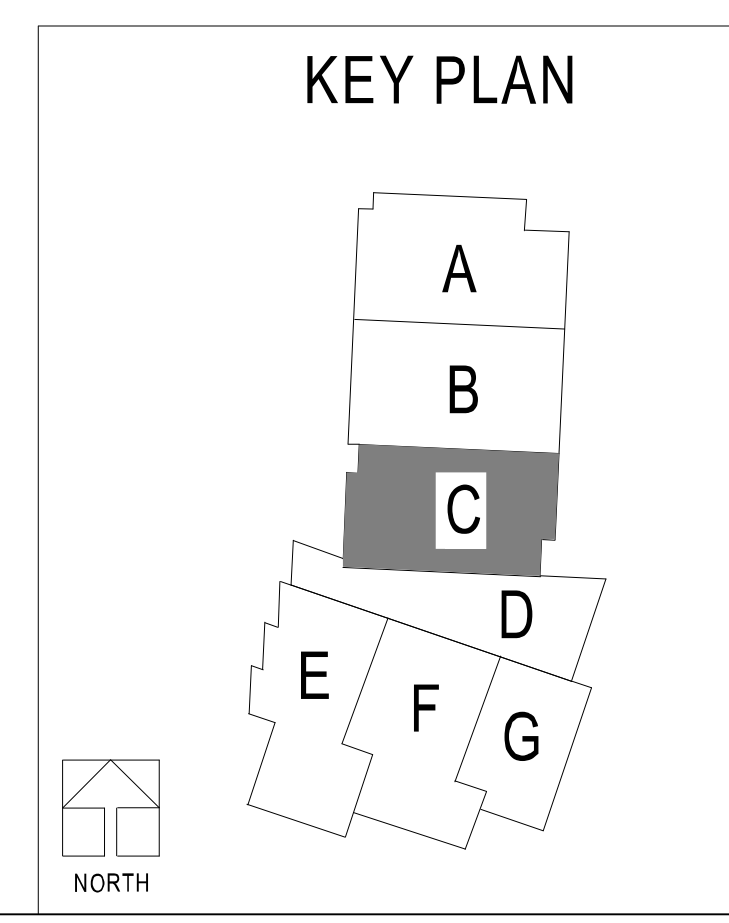
KEY PLAN



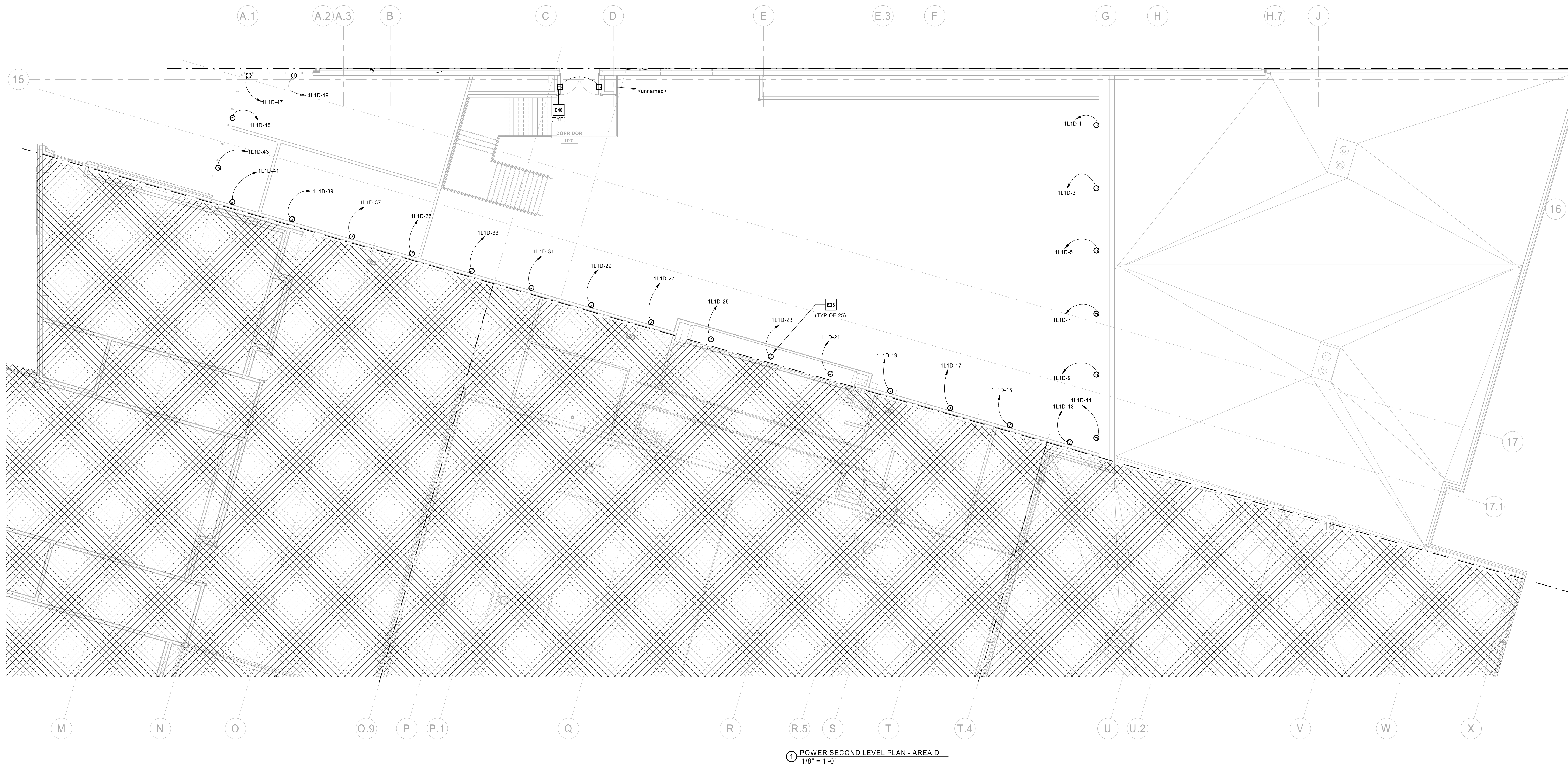
- ELECTRICAL PLAN NOTES:**
- E35 CONTRACTOR TO PROVIDE RECEPTACLE FOR TERSANO CHEMICAL DISPENSING SYSTEM IN JANITOR'S CLOSET. COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND MANUFACTURER'S SPECIFICATIONS.
- E45 RECEPTACLE MOUNTED TO FURNITURE OR MILLWORK ISLAND OR HALF HEIGHT PARTITION. CONTRACTOR TO PROVIDE 3/4" CONDUIT UNDERSLAB FOR RECEPTACLE POWER. COORDINATE EXACT STUB UP LOCATIONS AND INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS AND MILLWORK PLANS. COORDINATE WITH TECHNOLOGY PLANS IF ADDITIONAL CONDUITS FOR LOW VOLTAGE ARE REQUIRED. PROVIDE ADDITIONAL CONDUITS AS NEEDED FOR LOW VOLTAGE CONNECTIONS.
- E46 CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- E47 VESTIBULE IS SEPARATED FROM SURROUNDING BUILDING BY A 1-HOUR FIRE RATED PARTITION. CONTRACTOR TO SEAL PENETRATIONS WITH APPROPRIATE FIRE RATED SEALANT TO MAINTAIN FIRE RATING. CONFIRM ALL FIRE RATINGS WITH ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK.
- E57 POWER CONNECTION FOR DOUBLE SIDED DIGITAL CLOCK. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.
- E86 PROVIDE POWER CONNECTION TO DOOR HARDWARE POWER SUPPLY. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND DOOR HARDWARE MANUFACTURER PRIOR TO ROUGH-IN.



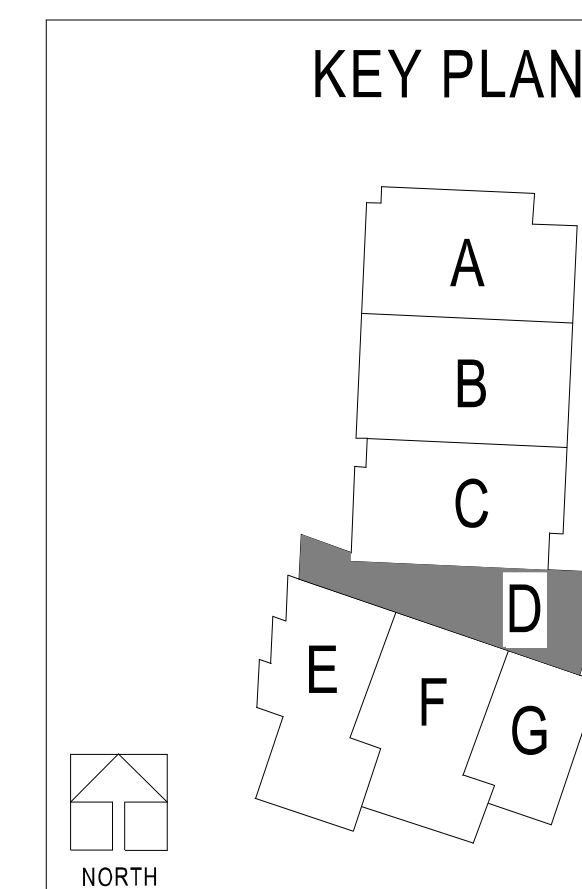
1 POWER SECOND LEVEL PLAN - AREA C
1/8" = 1'-0"

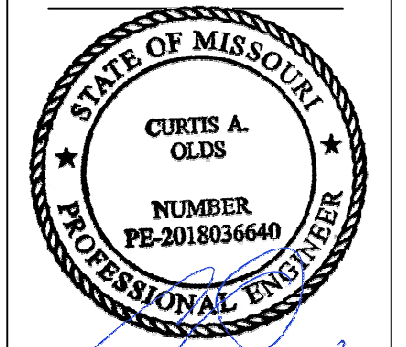


- ELECTRICAL PLAN NOTES:**
- E26** CONTRACTOR TO ROUGH-IN FOR POWER AND CONTROLS FOR MOTORIZED BLINDS. COORDINATE EXACT NUMBER OF CONNECTIONS, NUMBER OF CIRCUITS NEEDED, AND EXACT ROUGH-IN WITH BLINDS MANUFACTURER'S SPECIFICATIONS. COMMONS D101 HAS BLINDS ABOVE ON CLERESTORY. CIRCUIT IS TO BE ROUTED THROUGH RELAY PANEL IN ROOM D108. REFER TO DETAIL 4 ON SHEET E4.0 FOR MORE INFORMATION.
- E46** CONTRACTOR TO PROVIDE POWER FOR MAGNETIC DOOR HOLDS. COORDINATE ROUGH-IN LOCATIONS AND INSTALLATION REQUIREMENTS WITH SECURITY PLANS/CONTRACTOR, AND FIRE ALARM PLANS/CONTRACTOR, ARCHITECTURAL PLANS AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.



POWER SECOND LEVEL PLAN - AREA D
1/8" = 1'-0"





Oct 8 2020
CURTIS A. OLD'S
LICENSE # PE-2018036640

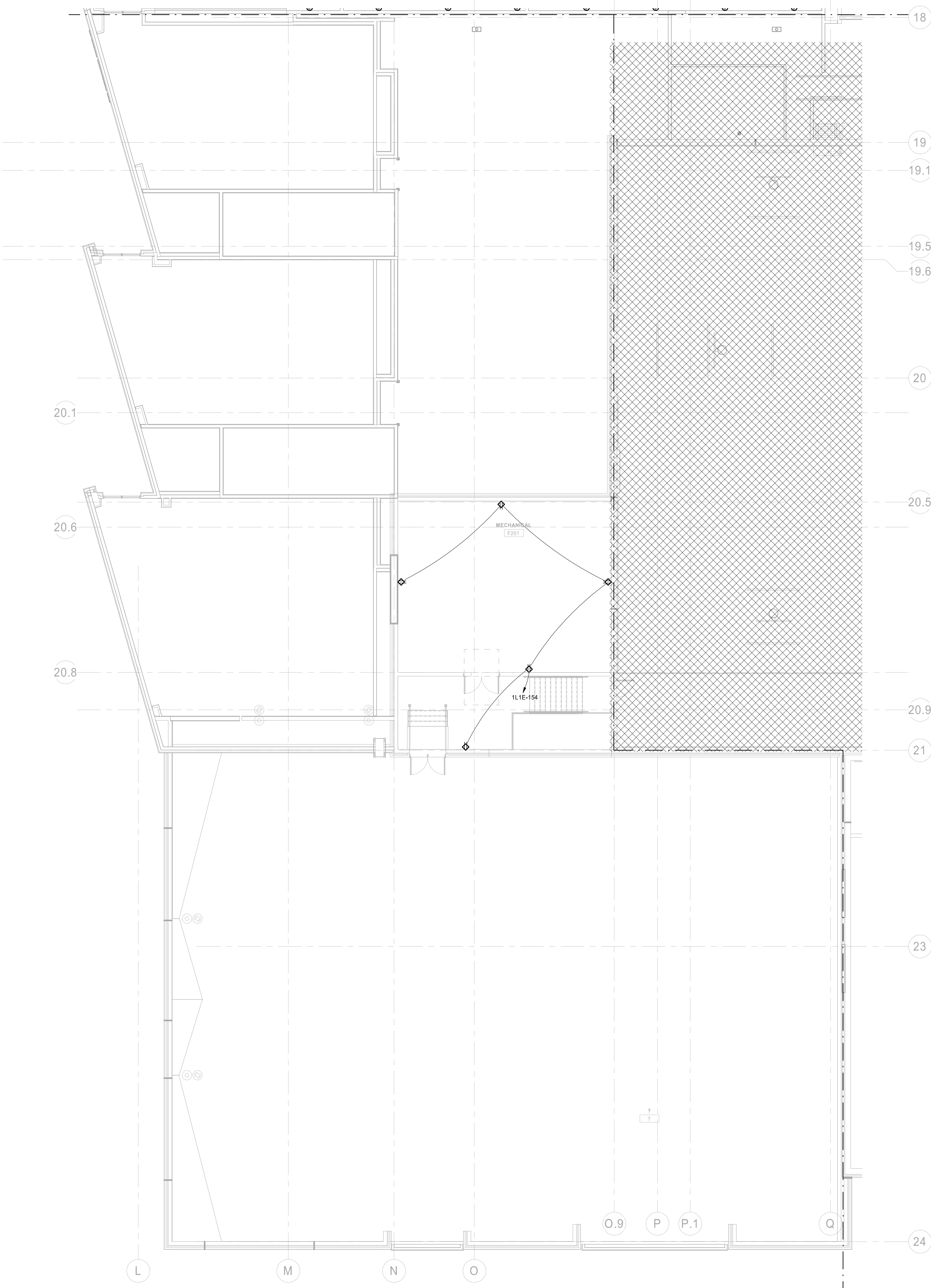
HENDERSON
ENGINEERS
8345 LENEXA DRIVE SUITE 300
LENEXA, KS 66217-4330
TEL: 913.711.1100
WWW.HENDERSONENGINEERS.COM
MO. CORPORATE NO. E-5680
ISSUED 08/20
EXPIRES 12/31/2020

LEE'S SUMMIT MIDDLE SCHOOL #4
LEE'S SUMMIT R-7 SCHOOL DISTRICT
1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

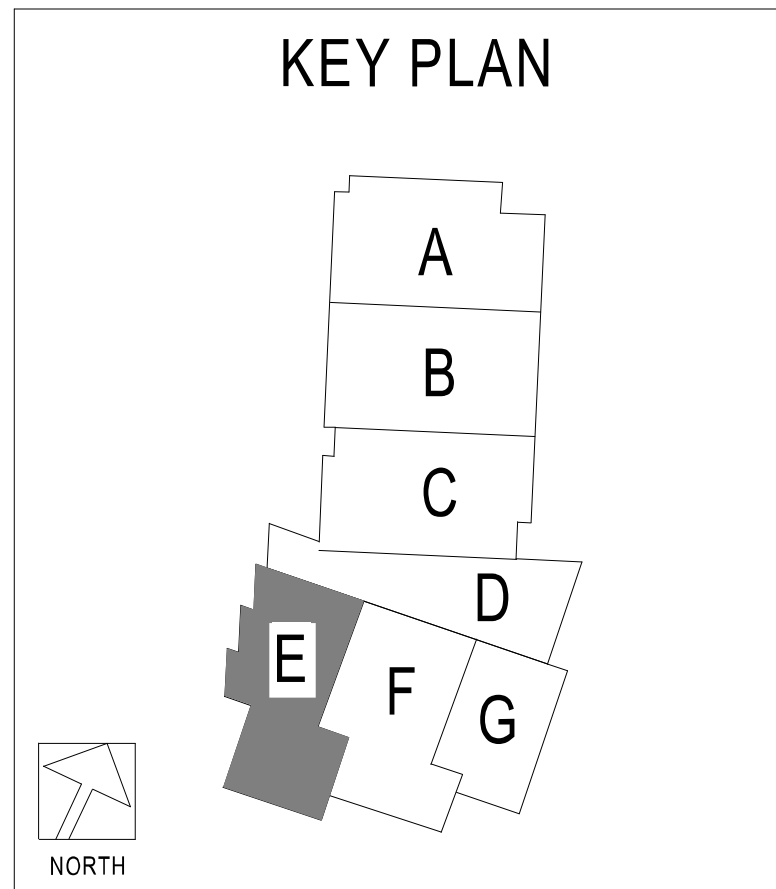
PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS

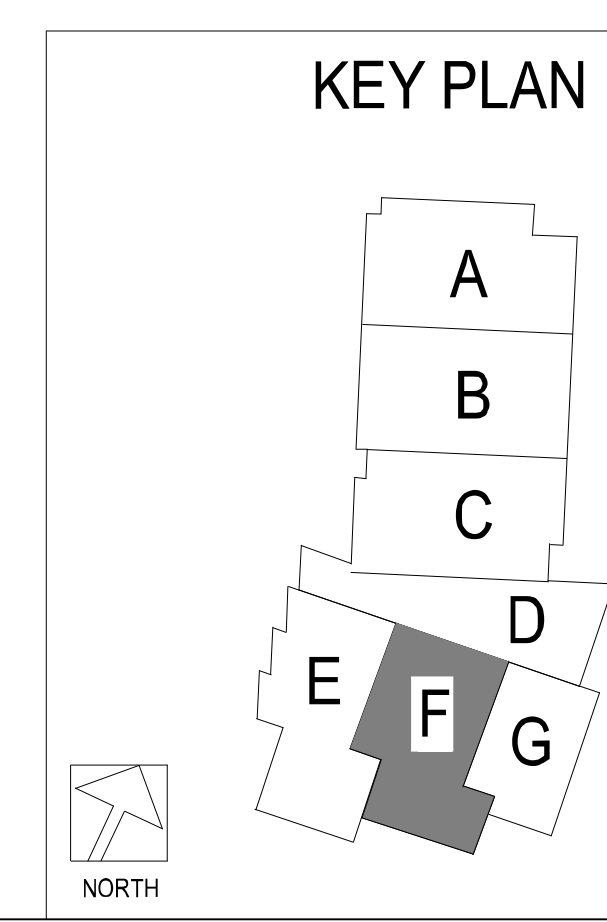
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POWER SECOND
LEVEL PLAN -
AREA E

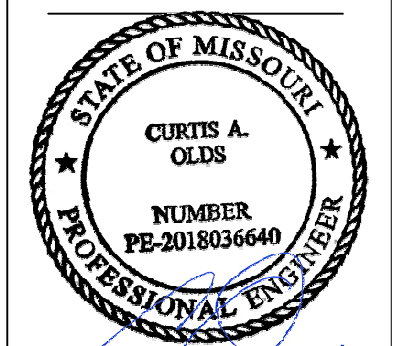
E2.2E



POWER SECOND LEVEL PLAN - AREA E
1/8" = 1'-0"







Oct 8 2020
CURTIS A. OLDS
LICENSE # PE-2018036640

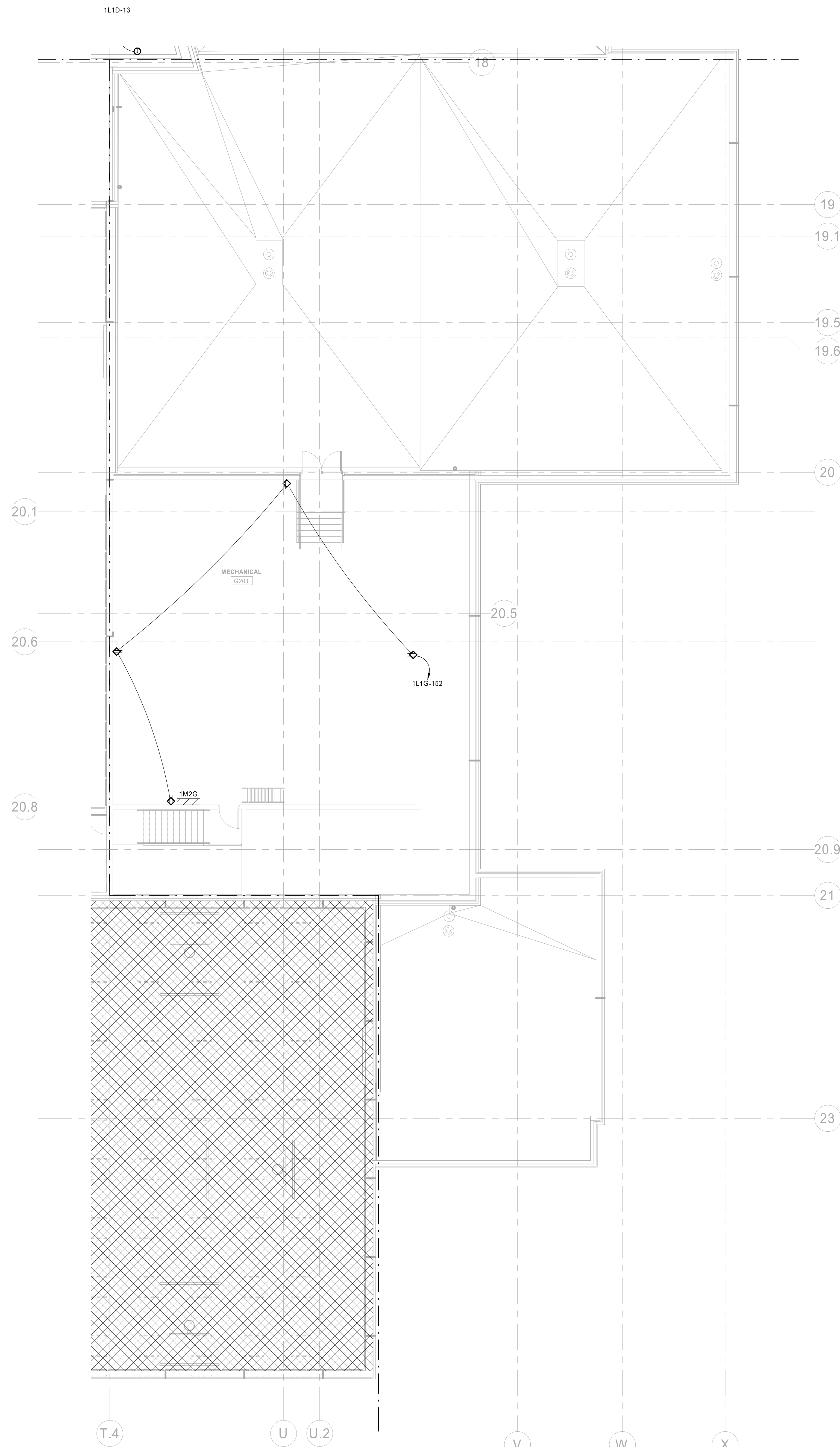
HENDERSON
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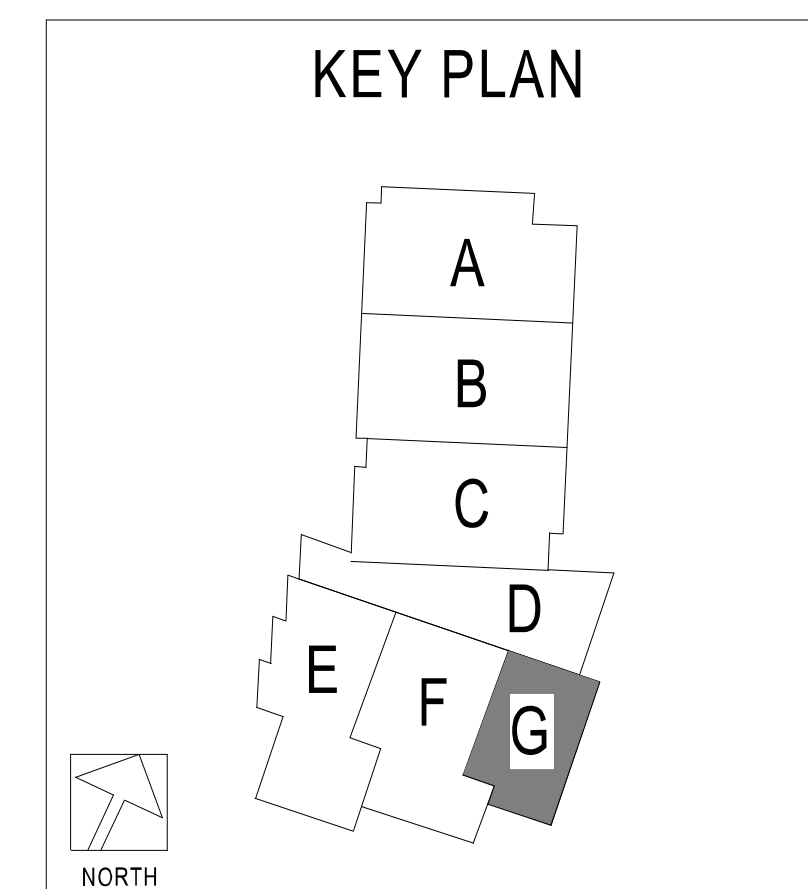
PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS

13-20102-00
POWER SECOND
LEVEL PLAN -
AREA G

E2.2G



① POWER SECOND LEVEL PLAN - AREA G
1/8" = 1'-0"



EQUIP CONN. - LVL1 - AREA A

MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 1 SUPPLY	LVL1 - AREA A	2H1A	38,40,42	
DC 1	LVL1 - AREA A	2H1A	28,28,30	
DC 2	LVL1 - AREA A	2H1A	32,34,36	
COMPUTER ROOM - INDOOR				
CR 1	LVL1 - AREA A	2L1A	162,164	B,C
CR 2	LVL1 - AREA A	2L1A	166,168	B,C
FAN				
RF 1	LVL1 - AREA A	2H1A	20,22,24	A,G
Gas Water Heater				
WH1	LVL1 - AREA A	2L1A	160	B
WH2	LVL1 - AREA A	2L1A	160	B
MECH PUMP				
RHWP 1	LVL1 - AREA A	2L1A	142	B
Recirculation Pump				
RP1	LVL1 - AREA A	2L1A	160	B
VARIABLE FREQUENCY DRIVES				
VFD 8	LVL1 - AREA A	2H1A	20,22,24	A,G
VAV BOX HYDRONIC				
VAV 101	LVL1 - AREA A	2L1A	158	E
VAV 102	LVL1 - AREA A	2L1A	158	E
VAV 103	LVL1 - AREA A	2L1A	158	E
VAV 104	LVL1 - AREA A	2L1A	158	E
VAV 105	LVL1 - AREA A	2L1A	158	E
VAV 106	LVL1 - AREA A	2L1A	158	E
VAV 107	LVL1 - AREA A	2L1A	158	E
VAV 108	LVL1 - AREA A	2L1A	158	E
VAV 109	LVL1 - AREA A	2L1A	158	E
VAV 110	LVL1 - AREA A	2L1A	158	E
VAV 111	LVL1 - AREA A	2L1A	158	E
VAV 112	LVL1 - AREA A	2L1A	158	E
VAV 113	LVL1 - AREA A	2L1A	158	E
VAV 114	LVL1 - AREA A	2L1A	158	E
VAV 115	LVL1 - AREA A	2L1A	158	E
VAV 116	LVL1 - AREA A	2L1A	158	E
VAV 117	LVL1 - AREA A	2L1A	158	E

GENERAL NOTES:

- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGHINS.
- REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

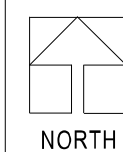
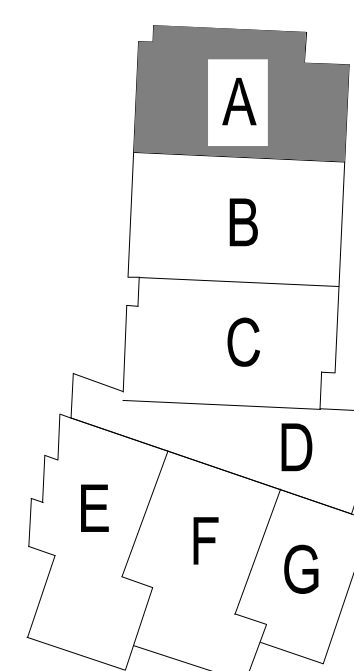
NOTES:

- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
- PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
- INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
- DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
- LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE. UNIT MOUNTED. EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
- DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E3-X) OR PANEL SCHEDULES (E3-X).
- EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
- MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS. CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
- PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

ELECTRICAL PLAN NOTES:

- E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM SAME CIRCUIT AS CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.
- E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- E42 DUCT COLLECTOR SUPPLY POWER CONNECTION TO EQUIPMENT MOUNTED CONTROL PANEL. PROVIDE ALL LINE (120V THRU 480V) AND LOW VOLTAGE (24V) WIRING INTERCONNECTIONS REQUIRED PER MFR REQUIREMENTS - (1) 480V BLOWER MOTOR, APPROXIMATELY (20) 120V CONTROL WIRING CONNECTIONS (RELAY PANEL CONNECTIONS, SPARK DETECTION PANEL, CLEANING MODE RELAY, SOLENOID HEATER MODULE, SOLENOID CONTROL WIRING, BROKEN BAG ALARM, AND HOPPER/DRUM HIGH LEVEL SENSOR), 24V REMOTE START SIGNAL WIRING (RE: MECHANICAL PLANS FOR LOCATION), AND (1) SINGLE PAIR TWISTED FOR BACNET COMMUNICATIONS.
- E95 PROVIDE EMERGENCY SHUTOFF BUTTON FOR BOILERS. PROVIDE WITH RED PLACARD ABOVE BUTTON STATING "BOILER EMERGENCY SHUTOFF" IN 1/4" WHITE LETTERING.

KEY PLAN



1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA A
1/8" = 1'-0"

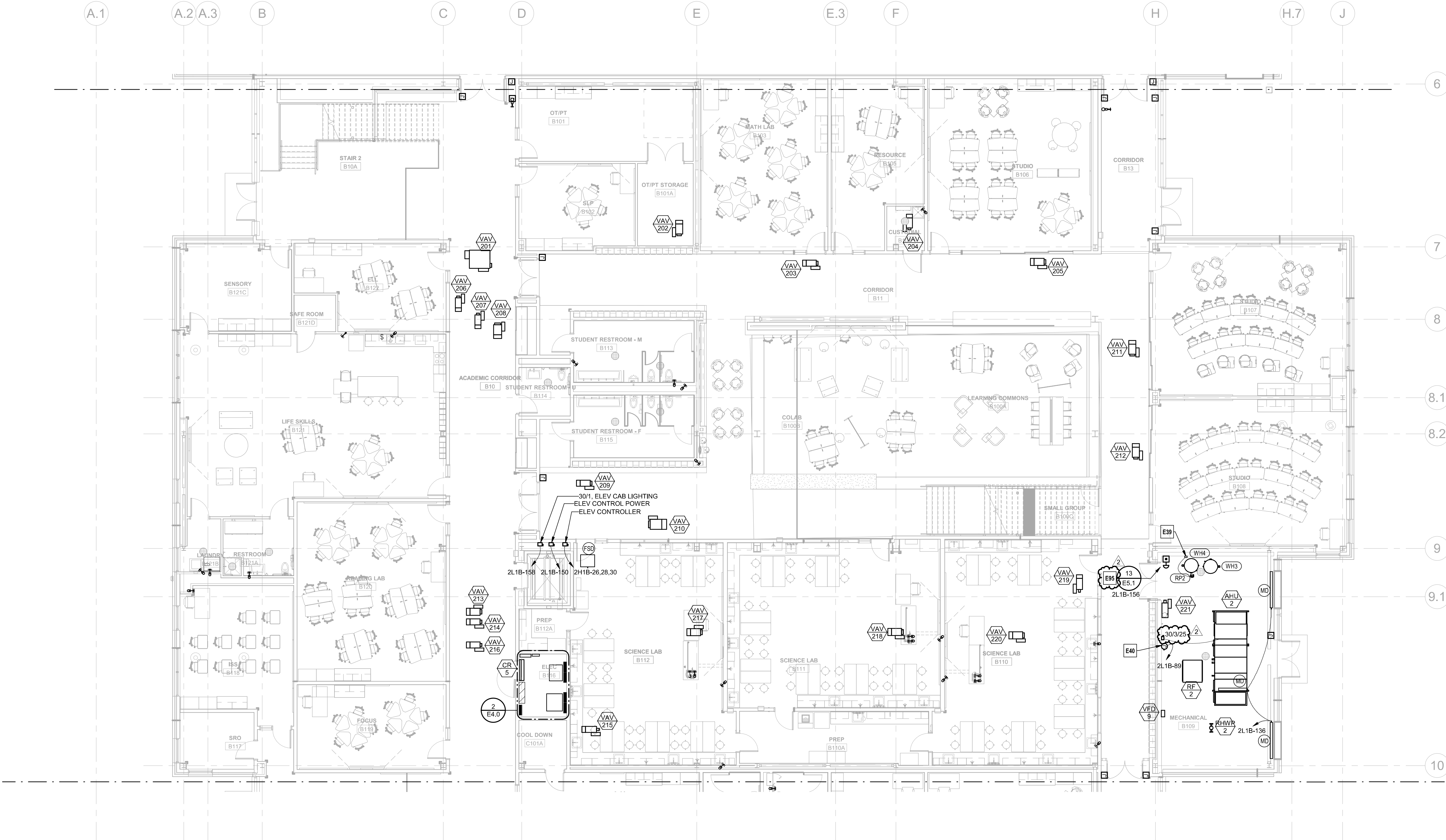
EQUIP CONN. - LVL1 - AREA B

MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 2 SUPPLY	LVL1 - AREA B	2H1B	32,34,36	
COMPUTER ROOM - INDOOR				
CR 5	LVL1 - AREA B	2L1B	166,168	B,C
ELEVATOR SUMP PUMP				
ESP1	LVL1 - AREA B	2L1B	152	D
FAN				
RF 2	LVL1 - AREA B	2H1B	38,40,42	A,G
FAN POWERED VAV BOX HYDRONIC				
VAV 201	LVL1 - AREA B	2L1B	164	E
Gas Water Heater				
WH3	LVL1 - AREA B	2L1B	162	B
WH4	LVL1 - AREA B	2L1B	162	B
MECH PUMP				
RHWP 2	LVL1 - AREA B	2L1B	138	B
Recirculation Pump				
RP2	LVL1 - AREA B	2L1B	162	B
VARIABLE FREQUENCY DRIVES				
VFD 9	LVL1 - AREA B	2H1B	38,40,42	A,G
VAV BOX HYDRONIC				
VAV 202	LVL1 - AREA B	2L1B	164	E
VAV 203	LVL1 - AREA B	2L1B	164	E
VAV 204	LVL1 - AREA B	2L1B	164	E
VAV 205	LVL1 - AREA B	2L1B	164	E
VAV 206	LVL1 - AREA B	2L1B	164	E
VAV 207	LVL1 - AREA B	2L1B	164	E
VAV 208	LVL1 - AREA B	2L1B	164	E
VAV 209	LVL1 - AREA B	2L1B	164	E
VAV 210	LVL1 - AREA B	2L1B	164	E
VAV 211	LVL1 - AREA B	2L1B	164	E
VAV 212	LVL1 - AREA B	2L1B	164	E
VAV 213	LVL1 - AREA B	2L1B	164	E
VAV 214	LVL1 - AREA B	2L1B	164	E
VAV 215	LVL1 - AREA B	2L1B	164	E
VAV 216	LVL1 - AREA B	2L1B	164	E
VAV 217	LVL1 - AREA B	2L1B	164	E
VAV 218	LVL1 - AREA B	2L1B	164	E
VAV 219	LVL1 - AREA B	2L1B	164	E
VAV 220	LVL1 - AREA B	2L1B	164	E
VAV 221	LVL1 - AREA B	2L1B	164	E

- GENERAL NOTES:**
- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
 - REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

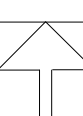
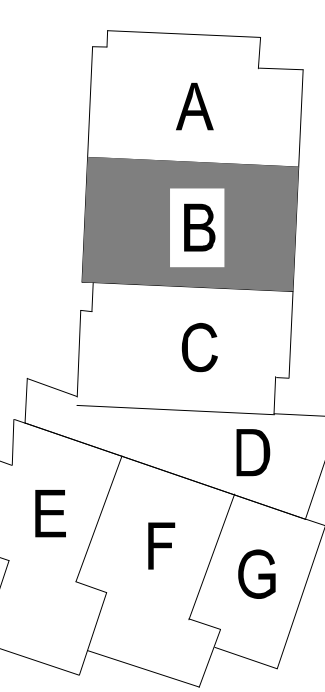
- NOTES:**
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE. UNIT MOUNTED. EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER. RE: ONE-LINE DIAGRAM (EX-1) OR PANEL SCHEDULES (EX-2).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
 - MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS. CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
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 - DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
 - PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

- ELECTRICAL PLAN NOTES:**
- E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM SAME CIRCUIT AS CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.
 - E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
 - E95 PROVIDE EMERGENCY SHUTOFF BUTTON FOR BOILERS. PROVIDE WITH RED PLACARD ABOVE BUTTON STATING "BOILER EMERGENCY SHUTOFF" IN 1/4" WHITE LETTERING.



1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA B
1/8" = 1'-0"

KEY PLAN



MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 3 SUPPLY	LVL1 - AREA C	2H1C	32,34,36	
COMPUTER ROOM - INDOOR				
CR 7	LVL1 - AREA C	2L1C	166, 168	B,C
CR 8	LVL1 - AREA C	2L1C	162, 164	B,C
FAN				
RF 3	LVL1 - AREA C	2H1C	38,40,42	A,G
FAN POWERED VAV BOX HYDRONIC				
VAV 324	LVL1 - AREA C	2L1C	160	E
Gas Water Heater				
WH5	LVL1 - AREA C	2L1C	158	B
WH6	LVL1 - AREA C	2L1C	158	B
MECH PUMP				
R-WP3	LVL1 - AREA C	2L1C	136	B
Recirculation Pump				
RP3	LVL1 - AREA C	2L1C	158	B
VARIABLE FREQUENCY DRIVES				
VFD 10	LVL1 - AREA C	2H1C	38,40,42	A,G
VAV BOX HYDRONIC				
VAV 301	LVL1 - AREA C	2L1C	160	E
VAV 302	LVL1 - AREA C	2L1C	160	E
VAV 303	LVL1 - AREA C	2L1C	160	E
VAV 304	LVL1 - AREA C	2L1C	160	E
VAV 305	LVL1 - AREA C	2L1C	160	E
VAV 306	LVL1 - AREA C	2L1C	160	E
VAV 307	LVL1 - AREA C	2L1C	160	E
VAV 308	LVL1 - AREA C	2L1C	160	E
VAV 309	LVL1 - AREA C	2L1C	160	E
VAV 310	LVL1 - AREA C	2L1C	160	E
VAV 311	LVL1 - AREA C	2L1C	160	E
VAV 312	LVL1 - AREA C	2L1C	160	E
VAV 313	LVL1 - AREA C	2L1C	160	E
VAV 314	LVL1 - AREA C	2L1C	160	E
VAV 315	LVL1 - AREA C	2L1C	160	E
VAV 316	LVL1 - AREA C	2L1C	160	E
VAV 317	LVL1 - AREA C	2L1C	160	E
VAV 318	LVL1 - AREA C	2L1C	160	E
VAV 319	LVL1 - AREA C	2L1C	160	E
VAV 320	LVL1 - AREA C	2L1C	160	E
VAV 321	LVL1 - AREA C	2L1C	160	E
VAV 322	LVL1 - AREA C	2L1C	160	E
VAV 323	LVL1 - AREA C	2L1C	160	E

1. COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO RECOMMINS.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 28 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

A DISCONNECTING MEANS (FRACTIONAL HP SWITCH / FUSED) DISCONNECT SWITCH AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.

B PROVIDE UNIT POWER SUPPLY FROM MOTOR RATED SWITCH AS DISCONNECTING MEANS.

C PROVIDE EXHAUST HOOD SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.

D DISCONNECTING MEANS PROVIDED VIA CORD PLUG CONNECTION. COORDINATE LOCATION OF EXHAUST HOOD WITH ELECTRICAL CODES. UNITS MOUNTED EQUIPMENT TRANSFORMER RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.

E PROVIDE A LOCKABLE CIRCUIT BREAKER BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (EX.X) OR PANEL SCHEDULES (EX.X).

F EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. PROVIDE AN OVERCURRENT CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.

G PROVIDE AN ADJUSTABLE SPEED CONTROL CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.

H DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN EXHAUST SYSTEM AND DRAINAGE SYSTEM. PROVIDE A FULL FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.

I PROVIDE DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULL FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.

J PROVIDE DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER MANUFACTURER'S REQUIREMENTS.

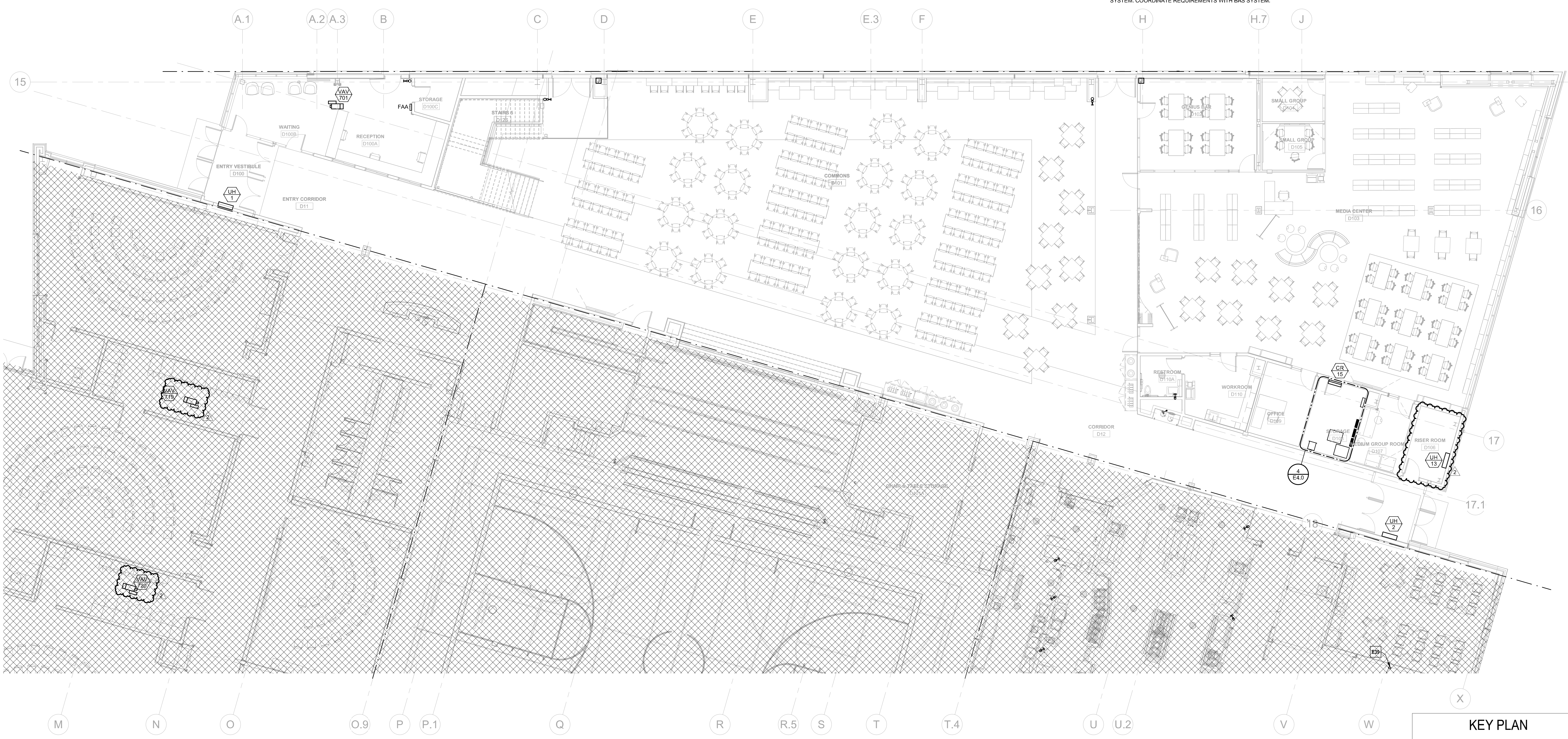
L PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEMS.

- E1 LAB SERVICE PANEL, PROVIDE ELECTRICAL CONNECTION AS INDICATED, PROVIDE ALL INTERCONNECTING WIRES TO GAS SOLENOID VALVE (INTERNAL TO LSP) AND REMOTE PANEL ASSEMBLY (RP1) (WHERE APPLICABLE) PER MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS. PROVIDE REMOTE PANEL ASSEMBLY, PROVIDE ELECTRICAL CONNECTION FROM CIRCUIT SERVING LAB SERVICE PANEL IN LAB SPACE. PROVIDE ALL REQUIRED WIRING AND CONNECTIONS FROM LAB SERVICE PANEL (LSP) EMERGENCY PUSH BUTTONS (RP1) AND GAS SOLENOID VALVES (INTERNAL TO LSP).
- E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM MAIN ELECTRICAL PANEL. PROVIDE CONNECTIONS TO MEET INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.
- E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL VALVE. COORDINATE WITH MECHANICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.
- E41 PROVIDE EMERGENCY SHUTOFF BUTTON FOR BOILERS. PROVIDE WITH RED PLASTIC EMERGENCY SHUTOFF "BOILER EMERGENCY SHUTOFF" IN 1/4" WHITE LETTERING.

EQUIP CONN. - LVL1 - AREA D				
MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - INDOOR				
CR 15	LVL1 - AREA D	1L1D	76,78	B,C
CUH HYDRONIC HEAT				
UH 1	LVL1 - AREA D	1L1D	82	A
UH 2	LVL1 - AREA D	1L1D	82	A
UH 13	LVL1 - AREA D	1L1D	75	A
VAV BOOTH HYDRONIC				
VAV 701	LVL1 - AREA D	1L1E	164	E

☐ **ELECTRICAL PLAN NOTES:**
E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM SAME CIRCUIT AS CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.

- GENERAL NOTES:**
- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
 - REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.
- NOTES:**
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE, UNIT MOUNTED, EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E8.X) OR PANEL SCHEDULES (E8.X).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
 - MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS, CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
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1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA D
1/8" = 1'-0"

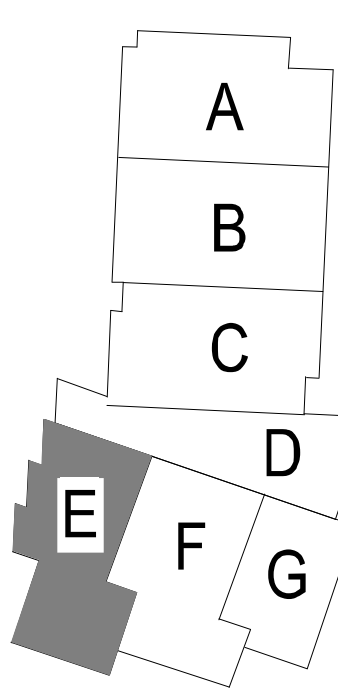
EQUIP CONN. - LVL1 - AREA E

MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - INDOOR				
CR 16	LVL1 - AREA E	1L1E	138, 139	2
VAV DATA ROOM				
VAV 703	LVL1 - AREA E	1L1E	164	E
VAV 704	LVL1 - AREA E	1L1E	164	E
VAV 705	LVL1 - AREA E	1L1E	164	E
VAV 706	LVL1 - AREA E	1L1E	164	E
VAV 707	LVL1 - AREA E	1L1E	164	E
VAV 708	LVL1 - AREA E	1L1E	164	E
VAV 709	LVL1 - AREA E	1L1E	164	E
VAV 710	LVL1 - AREA E	1L1E	164	E
VAV 711	LVL1 - AREA E	1L1E	164	E
VAV 712	LVL1 - AREA E	1L1E	164	E
VAV 713	LVL1 - AREA E	1L1E	164	E
VAV 714	LVL1 - AREA E	1L1E	164	E
VAV 715	LVL1 - AREA E	1L1E	164	E
VAV 716	LVL1 - AREA E	1L1E	164	E
VAV 717	LVL1 - AREA E	1L1E	164	E
VAV 718	LVL1 - AREA E	1L1E	164	E
VAV 719	LVL1 - AREA E	1L1E	164	E
VAV 720	LVL1 - AREA E	1L1E	164	E
VAV 721	LVL1 - AREA E	1L1E	164	E

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 - PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE. UNIT MOUNTED. EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER. RE: ONE-LINE DIAGRAM (E8.X) OR PANEL SCHEDULES (E6.X).
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KEY PLAN



1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA E
1/8" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/09/2020

DLR Group

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Missouri State Certificate of Authority #00393

STATE OF MISSOURI
COURTIS A. OLDS
NUMBER
PE-2018036640
PROFESSIONAL ENGINEER

Oct 19 2020
CURTIS A. OLDS
LICENSE # PE-2018036640

HENDERSON
ENGINEERS
8845 LINCOLN DRIVE, SUITE 300
LEES SUMMIT, MO 64081
TEL: 913.727.0000
WWW.HENDERSONENGINEERS.COM
800.665.5634
MO. CORPORATE NO. E-6580
EXPIRES 12/31/2020

EQUIP CONN. - LVL1 - AREA F

Electric Storage Water Heater				
WH10	LVL1 - AREA F	1L1F	18.20	K
FAN	LVL1 - AREA F	1L1F	55	A
Refrigeration Unit	LVL1 - AREA F	1L1F	22	B
RP4	LVL1 - AREA F	1L1F	22	B
VAV BOX HYDRONIC				
VAV 801	LVL1 - AREA F	1L1D	80	E
VAV 802	LVL1 - AREA F	1L1D	80	E
VAV 803	LVL1 - AREA F	1L1D	80	E
VAV 811	LVL1 - AREA F	1L1D	80	E

GENERAL NOTES:

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NOTES:

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- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
- PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

☐ ELECTRICAL PLAN NOTES:

E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.

1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA F
1/8" = 1'-0"

KEY PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4
LEE'S SUMMIT R-7 SCHOOL DISTRICT
1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS
ADDENDUM 002

13-20102-00
EQUIPMENT CONNECTION
FIRST LEVEL
PLAN - AREA F

E3.1F

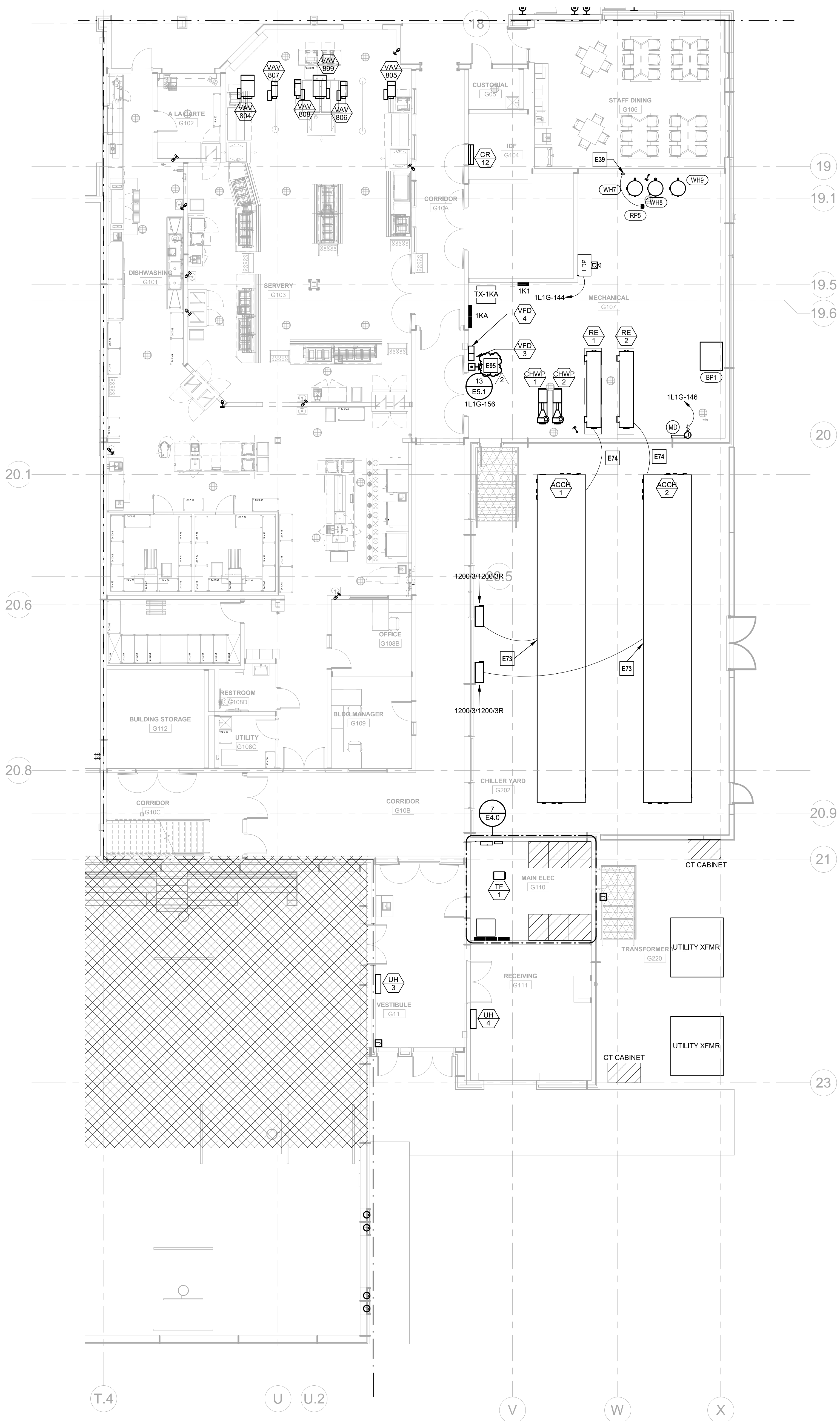
EQUIP CONN. - LVL1 - AREA G

MARK	LOCATION	PANEL	CIRCUIT	NOTES
CHILLER				
ACH 1	LVL1 - AREA G	SWBD-N1	1	A
ACH 2	LVL1 - AREA G	SWBD-N1	2	A
COMPUTER ROOM - INDOOR				
CR 12	LVL1 - AREA G	1L1G	166,168	B,C
CUH HYDRONIC HEAT				
UH 3	LVL1 - AREA G	1L1G	162	A
UH 4	LVL1 - AREA G	1L1G	162	A
DOMESTIC BOOSTER PUMP				
BP1	LVL1 - AREA G	1H1G	32,34,36	A
FAN				
TF 1	LVL1 - AREA G	1L1G	148	A
Gas Water Heater				
WH7	LVL1 - AREA G	1L1G	126	B
WH8	LVL1 - AREA G	1L1G	126	B
WH9	LVL1 - AREA G	1L1G	126	B
MECH PUMP				
CHWP 1	LVL1 - AREA G	SWBD-N1	3	A
CHWP 2	LVL1 - AREA G	SWBD-N1	4	A
Recirculation Pump				
RP5	LVL1 - AREA G	1L1G	132	B
VARIABLE FREQUENCY DRIVES				
VFD 3	LVL1 - AREA G	SWBD-N1	3	A,G
VFD 4	LVL1 - AREA G	SWBD-N1	4	A,G
VAV BOX HYDRONIC				
VAV 804	LVL1 - AREA G	1L1G	164	E
VAV 805	LVL1 - AREA G	1L1G	164	E
VAV 806	LVL1 - AREA G	1L1G	164	E
VAV 807	LVL1 - AREA G	1L1G	164	E
VAV 808	LVL1 - AREA G	1L1G	164	E
VAV 809	LVL1 - AREA G	1L1G	164	E

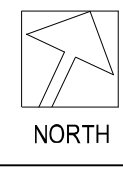
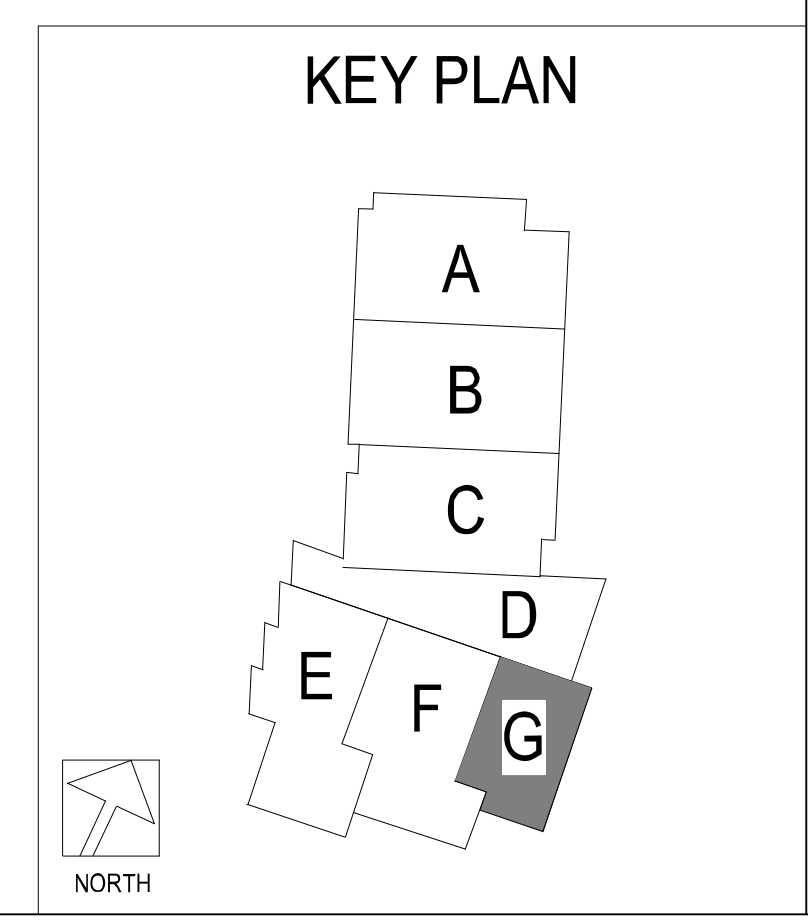
- GENERAL NOTES:**
- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
 - REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

- NOTES:**
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE. UNIT MOUNTED, EQUIPMENT TRANSFORMER, RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E8.X) OR PANEL SCHEDULES (E8.X).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
 - MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS. CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
 - DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
 - DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
 - DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
 - PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.

- ☐ **ELECTRICAL PLAN NOTES:**
- E39 CONTRACTOR TO PROVIDE CONNECTION FOR CIRCULATION PUMP TIMER TO BE FED FROM SAME CIRCUIT AS CIRCULATION PUMP. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND PLUMBING PLANS.
- E73 POWER CONNECTION TO FACTORY MOUNTED VFD. COORDINATE REQUIREMENTS WITH MANUFACTURER AND DIVISION 23 CONTRACTOR.
- E74 DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION OF AIR COOLED CHILLER AND REMOTE EVAPORATION UNIT. COORDINATE REQUIREMENTS WITH MANUFACTURER AND DIVISION 23 CONTRACTOR.
- E95 PROVIDE EMERGENCY SHUTOFF BUTTON FOR BOILERS. PROVIDE WITH RED PLACARD ABOVE BUTTON STATING "BOILER EMERGENCY SHUTOFF" IN 1/4" WHITE LETTERING.



1 EQUIPMENT CONNECTION FIRST LEVEL PLAN - AREA G
1/8" = 1'-0"



EQUIP CONN. - LVL2 - AREA A

MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 4 SUPPLY				
	LVL2 - AREA A	2H2A	38,40,42	
COMPUTER ROOM - INDOOR				
CR 3	LVL2 - AREA A	2L2A	162,164	B,C
CR 4	LVL2 - AREA A	2L2A	166,168	B,C
CR 13	LVL2 - AREA A	2L2A	158,160	B,C
FAN				
RF 4	LVL2 - AREA A	2H2A	32,34,36	A,G
MECH PUMP				
RHWP 4	LVL2 - AREA A	2L2A	124	B
VARIABLE FREQUENCY DRIVES				
VFD 11	LVL2 - AREA A	2H2A	32,34,36	A,G
VAV BOX HYDRONIC				
VAV 401	LVL2 - AREA A	2L2A	156	E
VAV 402	LVL2 - AREA A	2L2A	156	E
VAV 403	LVL2 - AREA A	2L2A	156	E
VAV 404	LVL2 - AREA A	2L2A	156	E
VAV 405	LVL2 - AREA A	2L2A	156	E
VAV 406	LVL2 - AREA A	2L2A	156	E
VAV 407	LVL2 - AREA A	2L2A	156	E
VAV 408	LVL2 - AREA A	2L2A	156	E
VAV 409	LVL2 - AREA A	2L2A	156	E
VAV 410	LVL2 - AREA A	2L2A	156	E
VAV 411	LVL2 - AREA A	2L2A	156	E
VAV 412	LVL2 - AREA A	2L2A	156	E
VAV 413	LVL2 - AREA A	2L2A	156	E
VAV 414	LVL2 - AREA A	2L2A	156	E
VAV 415	LVL2 - AREA A	2L2A	156	E
VAV 416	LVL2 - AREA A	2L2A	156	E

GENERAL NOTES:

- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
- REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

NOTES:

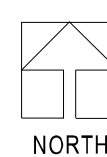
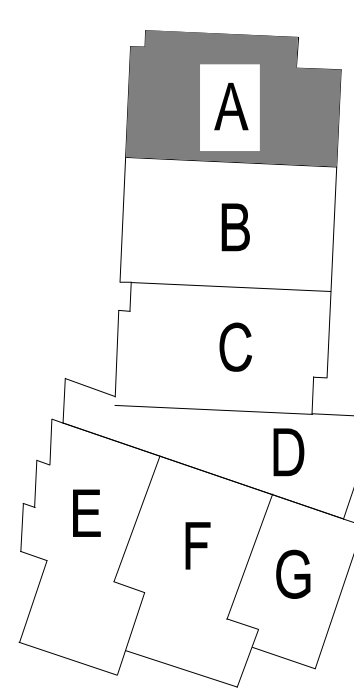
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
- PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
- INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
- DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
- LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE, UNIT MOUNTED, EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
- DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E3.X) OR PANEL SCHEDULES (E3.X).
- EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
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ELECTRICAL PLAN NOTES:

- E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.

① EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA A
1/8" = 1'-0"

KEY PLAN



EQUIP CONN. - LVL2 - AREA B

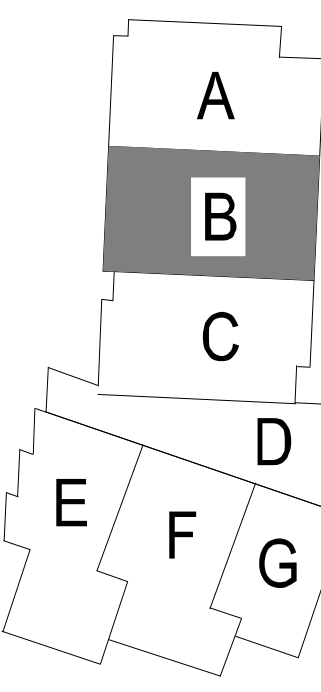
MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 5 SUPPLY	LVL2 - AREA B	2H2B	32,34,36	
COMPUTER ROOM - INDOOR				
CR 6	LVL2 - AREA B	2L2B	166, 168	B,C
FAN				
RF 5	LVL2 - AREA B	2H2B	38,40,42	A,G
MECH PUMP				
RHWP 5	LVL2 - AREA B	2L2B	146	B
VARIABLE FREQUENCY DRIVES				
VFD 12	LVL2 - AREA B	2H2B	38,40,42	A,G
VAV BOX HYDRONIC				
VAV 501	LVL2 - AREA B	2L2B	164	E
VAV 502	LVL2 - AREA B	2L2B	164	E
VAV 503	LVL2 - AREA B	2L2B	164	E
VAV 504	LVL2 - AREA B	2L2B	164	E
VAV 505	LVL2 - AREA B	2L2B	164	E
VAV 506	LVL2 - AREA B	2L2B	164	E
VAV 507	LVL2 - AREA B	2L2B	164	E
VAV 508	LVL2 - AREA B	2L2B	164	E
VAV 509	LVL2 - AREA B	2L2B	164	E
VAV 510	LVL2 - AREA B	2L2B	164	E
VAV 511	LVL2 - AREA B	2L2B	164	E
VAV 512	LVL2 - AREA B	2L2B	164	E
VAV 513	LVL2 - AREA B	2L2B	164	E
VAV 514	LVL2 - AREA B	2L2B	164	E
VAV 515	LVL2 - AREA B	2L2B	164	E
VAV 516	LVL2 - AREA B	2L2B	164	E
VAV 517	LVL2 - AREA B	2L2B	164	E

- GENERAL NOTES:**
- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
 - REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
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- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE, UNIT MOUNTED, EQUIPMENT TRANSFORMER, RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E3.X) OR PANEL SCHEDULES (E3.X).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
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1 EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA B
1/8" = 1'-0"

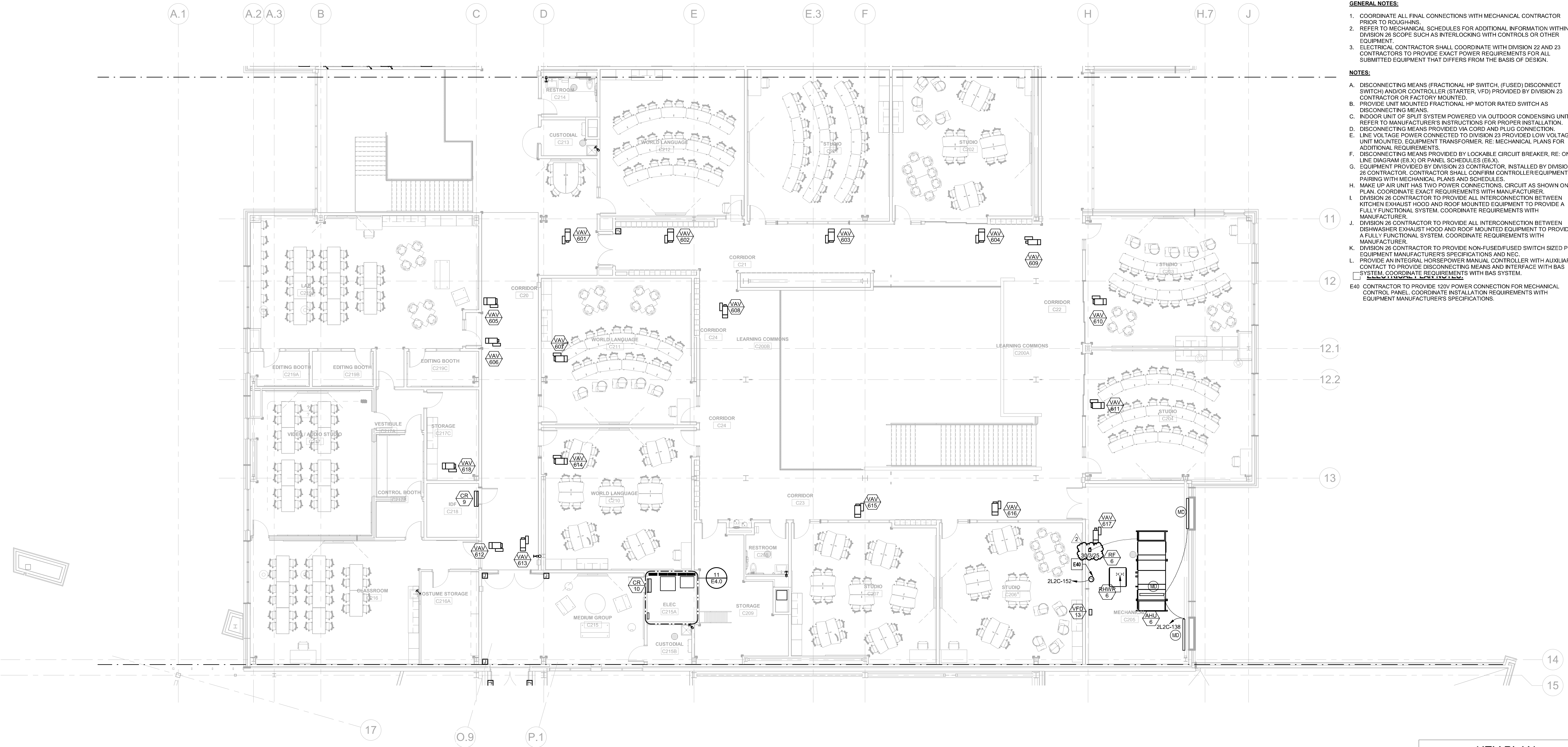
KEY PLAN



EQUIP CONN. - LVL2 - AREA C

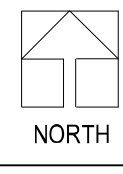
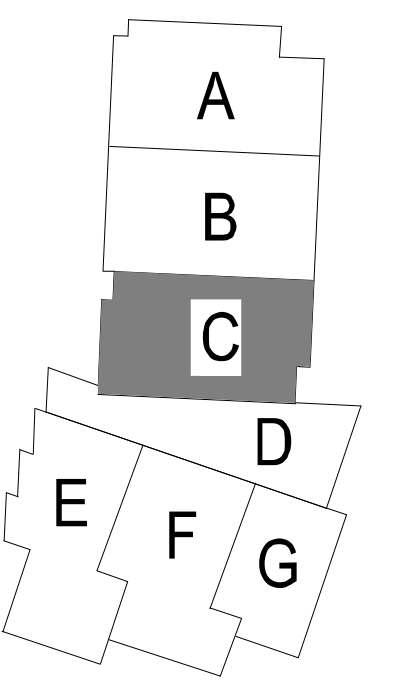
MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 6 SUPPLY				
COMPUTER ROOM - INDOOR				
CR 9	LVL2 - AREA C	2L2C	162,164	B,C
CR 10	LVL2 - AREA C	2L2C	166,168	B,C
FAN				
RF 6	LVL2 - AREA C	2H2C	38,40,42	A,G
MECH PUMP				
RHWP 6	LVL2 - AREA C	2L2C	140	B
VARIABLE FREQUENCY DRIVES				
VFD 13	LVL2 - AREA C	2H2C	38,40,42	A,G
VAV BOX HYDRONIC				
VAV 601	LVL2 - AREA C	2L2C	156	E
VAV 602	LVL2 - AREA C	2L2C	156	E
VAV 603	LVL2 - AREA C	2L2C	156	E
VAV 604	LVL2 - AREA C	2L2C	156	E
VAV 605	LVL2 - AREA C	2L2C	156	E
VAV 606	LVL2 - AREA C	2L2C	156	E
VAV 607	LVL2 - AREA C	2L2C	156	E
VAV 608	LVL2 - AREA C	2L2C	156	E
VAV 609	LVL2 - AREA C	2L2C	156	E
VAV 610	LVL2 - AREA C	2L2C	156	E
VAV 611	LVL2 - AREA C	2L2C	156	E
VAV 612	LVL2 - AREA C	2L2C	156	E
VAV 613	LVL2 - AREA C	2L2C	156	E
VAV 614	LVL2 - AREA C	2L2C	156	E
VAV 615	LVL2 - AREA C	2L2C	156	E
VAV 616	LVL2 - AREA C	2L2C	156	E
VAV 617	LVL2 - AREA C	2L2C	156	E
VAV 618	LVL2 - AREA C	2L2C	156	E

- GENERAL NOTES:**
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 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
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 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E3.X) OR PANEL SCHEDULES (E3.X).
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 - CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.



① EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA C
1/8" = 1'-0"

KEY PLAN

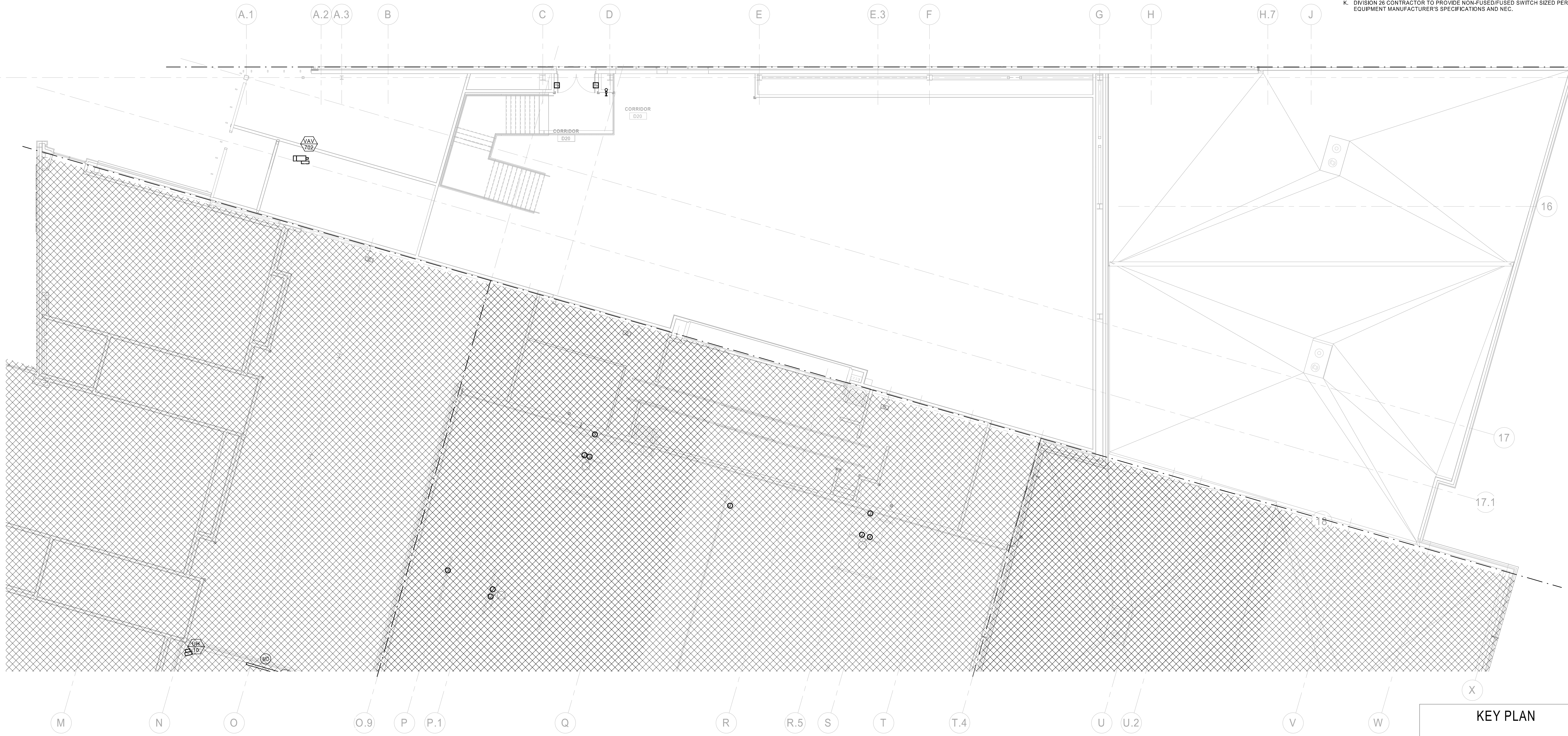


EQUIP CONN. - LVL2 - AREA D

MARK	LOCATION	PANEL	CIRCUIT	NOTES
VAV BOX HYDRONIC				
VAV 702	LVL2 - AREA D	1L1E	164	E

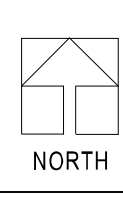
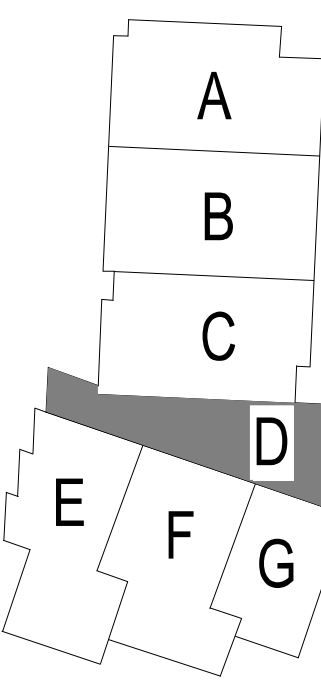
- GENERAL NOTES:**
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 - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

- NOTES:**
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE, UNIT MOUNTED, EQUIPMENT TRANSFORMER. RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E6.X) OR PANEL SCHEDULES (E6.X).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
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 - DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.



1 EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA D
1/8" = 1'-0"

KEY PLAN

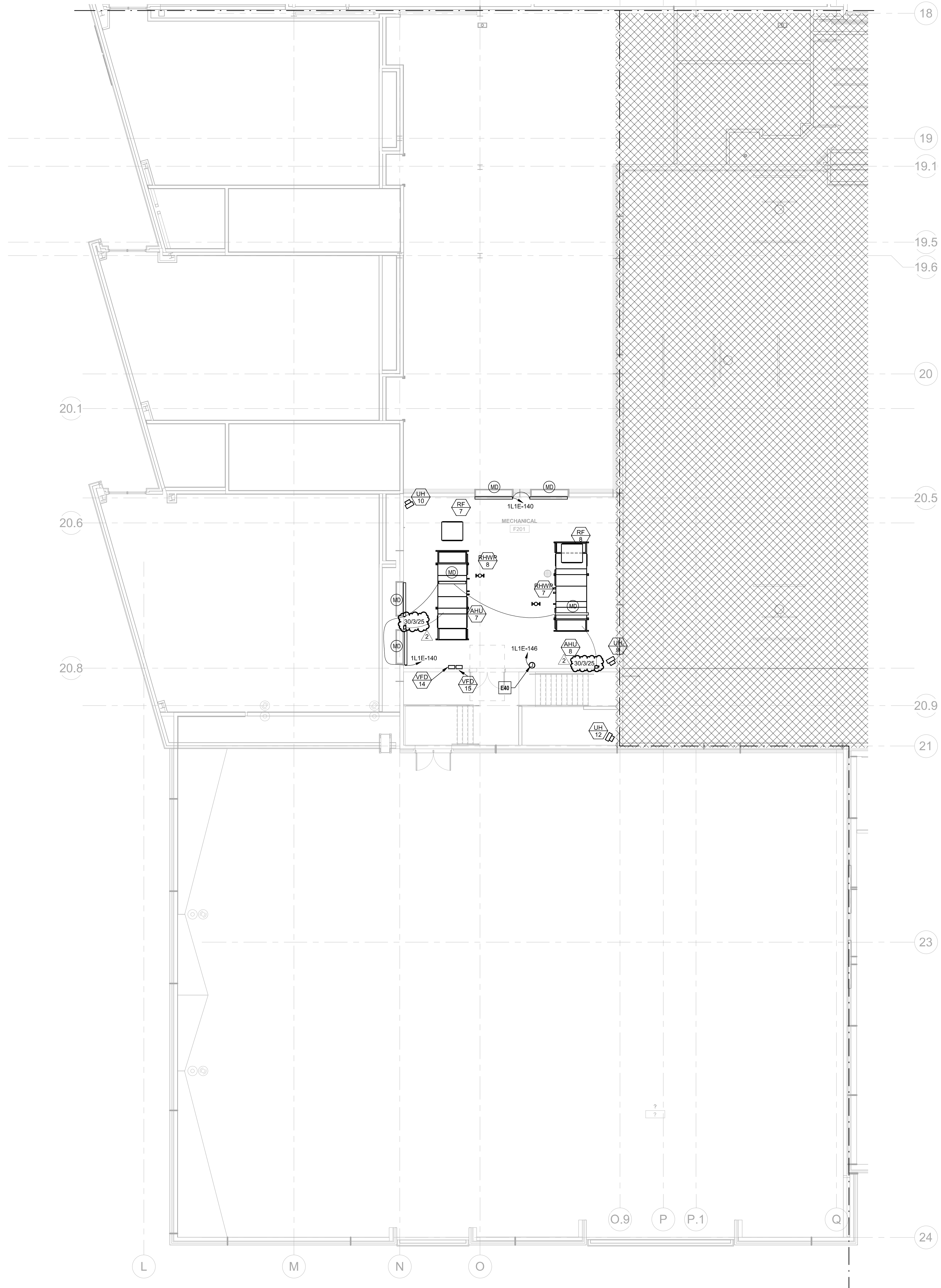


EQUIP CONN. - LVL2 - AREA E

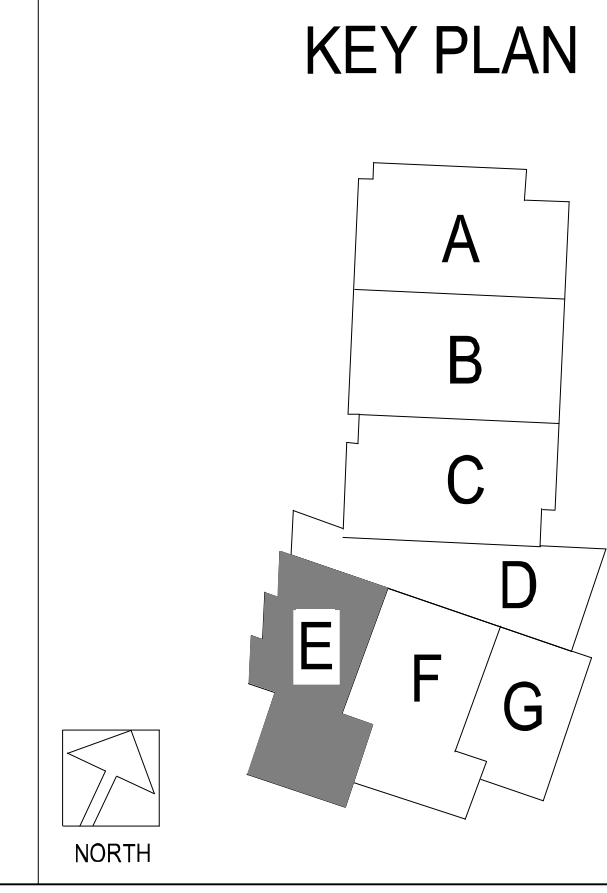
MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 7 SUPPLY	LVL2 - AREA E	1H1E	62,84.88	
AHU 8 SUPPLY	LVL2 - AREA E	1H1E	50,52.54	
FAN				
RF 7	LVL2 - AREA E	1H1E	68,70.72	A,G
RF 8	LVL2 - AREA E	1H1E	56,58.60	A,G
MECH PUMP				
RHWP 7	LVL2 - AREA E	1L1E	142	B
RHWP 8	LVL2 - AREA E	1L1E	144	B
UNIT HEATER HYDRONIC				
UH 9	LVL2 - AREA E	1L1E	158	A
UH 10	LVL2 - AREA E	1L1E	158	A
UH 12	LVL2 - AREA E	1L1E	158	A
VARIABLE FREQUENCY DRIVES				
VFD 14	LVL2 - AREA E	1H1E	68,70.72	A,G
VFD 15	LVL2 - AREA E	1H1E	56,58.60	A,G

- GENERAL NOTES:**
- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
 - REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

- NOTES:**
- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
 - DISCONNECTING MEANS.
 - INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
 - DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
 - LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE. UNIT MOUNTED. EQUIPMENT TRANSFORMER, RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
 - DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E8.X) OR PANEL SCHEDULES (E6.X).
 - EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
 - MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS. CIRCUIT AS SHOWN ON PLAN. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
 - DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM. COORDINATE REQUIREMENTS WITH MANUFACTURER.
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 - DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.
 - PROVIDE AN INTEGRAL HORSEPOWER MANUAL CONTROLLER WITH AUXILIARY CONTACT TO PROVIDE DISCONNECTING MEANS AND INTERFACE WITH BAS SYSTEM. COORDINATE REQUIREMENTS WITH BAS SYSTEM.
- E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S SPECIFICATIONS.



1 EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA E
1/8" = 1'-0"



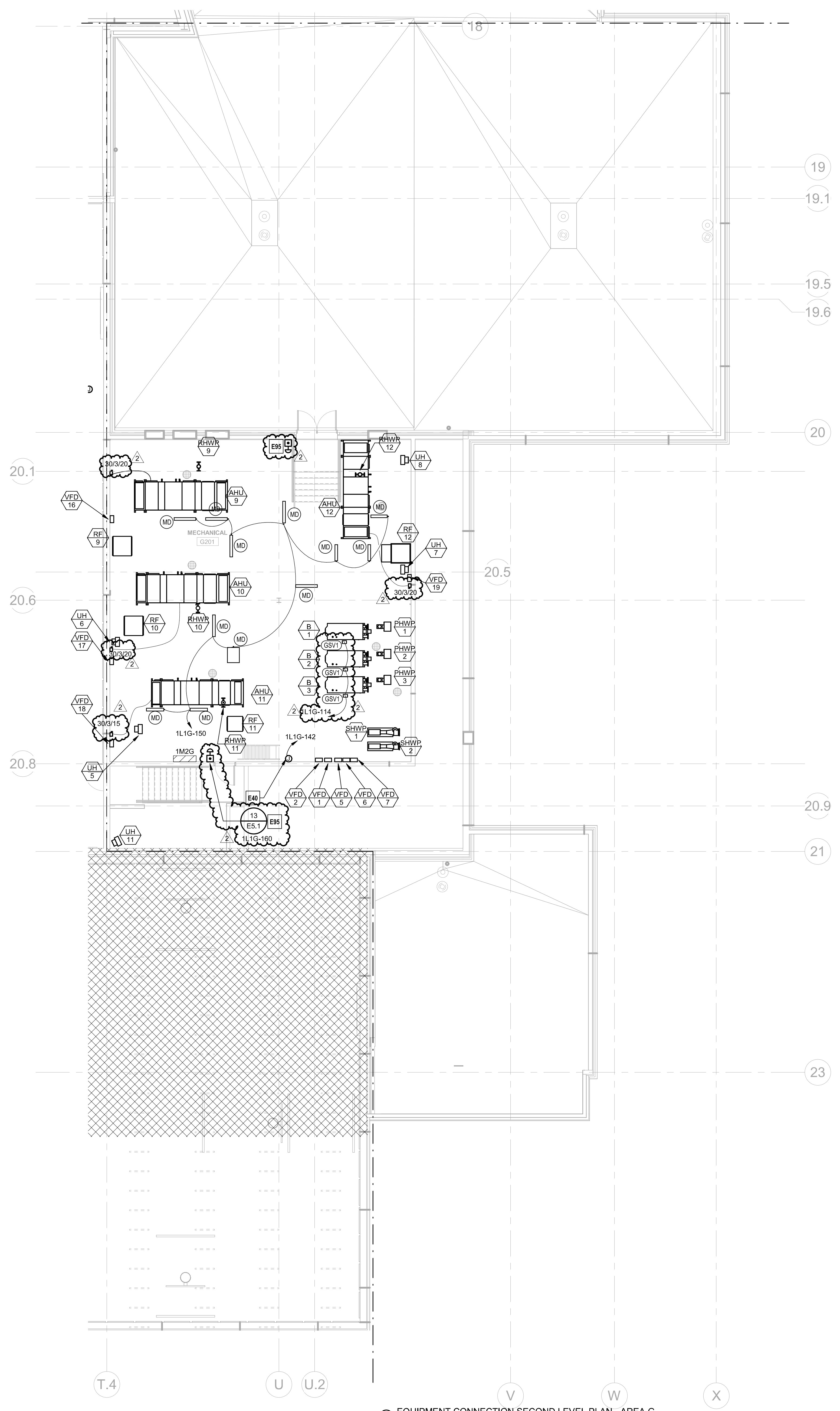
EQUIP CONN. - LVL2 - AREA G

MARK	LOCATION	PANEL	CIRCUIT	NOTES
AHU 9 SUPPLY	LVL2 - AREA G	1M2G	62.84.88	
AHU 10 SUPPLY	LVL2 - AREA G	1M2G	74.76.78	
AHU 11 SUPPLY	LVL2 - AREA G	1M2G	38.40.42	
AHU 12 SUPPLY	LVL2 - AREA G	1M2G	50.52.54	
B 1	LVL2 - AREA G	1M2G	61.63.65	F
B 2	LVL2 - AREA G	1M2G	67.69.71	F
B 3	LVL2 - AREA G	1M2G	73.75.77	F
FAN				
RF 9	LVL2 - AREA G	1M2G	68.70.72	A.G
RF 10	LVL2 - AREA G	1M2G	80.82.84	A.G
RF 11	LVL2 - AREA G	1M2G	44.46.48	A.G
RF 12	LVL2 - AREA G	1M2G	56.58.60	A.G
MECH PUMP				
PHWP 1	LVL2 - AREA G	1M2G	37.39.41	F
PHWP 2	LVL2 - AREA G	1M2G	43.45.47	F
PHWP 3	LVL2 - AREA G	1M2G	49.51.53	F
RHWP 9	LVL2 - AREA G	1L1G	118	B
RHWP 10	LVL2 - AREA G	1L1G	120	B
RHWP 11	LVL2 - AREA G	1L1G	122	B
RHWP 12	LVL2 - AREA G	1L1G	124	B
SHWP 1	LVL2 - AREA G	1M2G	25.27.29	A
SHWP 2	LVL2 - AREA G	1M2G	31.33.35	A
UNIT HEATER HYDRONIC				
UH 5	LVL2 - AREA G	1L1G	158	A
UH 6	LVL2 - AREA G	1L1G	158	A
UH 7	LVL2 - AREA G	1L1G	158	A
UH 8	LVL2 - AREA G	1L1G	158	A
UH 11	LVL2 - AREA G	1L1G	158	A
VARIABLE FREQUENCY DRIVES				
VFD 1	LVL2 - AREA G	1M2G	25.27.29	A.G
VFD 2	LVL2 - AREA G	1M2G	31.33.35	A.G
VFD 5	LVL2 - AREA G	1M2G	37.39.41	A.G
VFD 6	LVL2 - AREA G	1M2G	43.45.47	A.G
VFD 7	LVL2 - AREA G	1M2G	49.51.53	A.G
VFD 16	LVL2 - AREA G	1M2G	68.70.72	A.G
VFD 17	LVL2 - AREA G	1M2G	80.82.84	A.G
VFD 18	LVL2 - AREA G	1M2G	44.46.48	A.G
VFD 19	LVL2 - AREA G	1M2G	56.58.60	A.G

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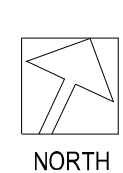
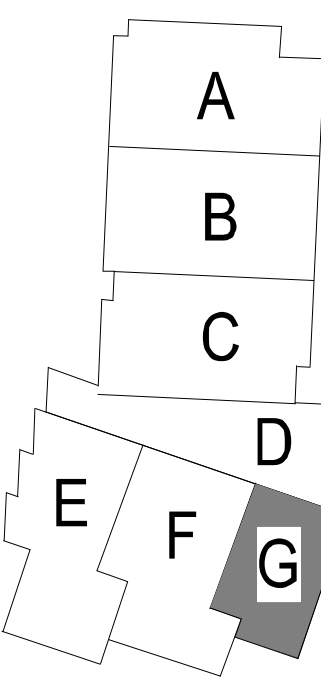
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- ☐ **ELECTRICAL PLAN NOTES:**
- E40 CONTRACTOR TO PROVIDE 120V POWER CONNECTION FOR MECHANICAL CONTROL PANEL. COORDINATE INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- E49 PROVIDE EMERGENCY SHUTOFF BUTTON FOR BOILERS. PROVIDE WITH RED PLACARD ABOVE BUTTON STATING "BOILER EMERGENCY SHUTOFF" IN 1/4" WHITE LETTERING.



1 EQUIPMENT CONNECTION SECOND LEVEL PLAN - AREA G
1/8" = 1'-0"

KEY PLAN



EQUIP CONN. - ROOF - AREA A

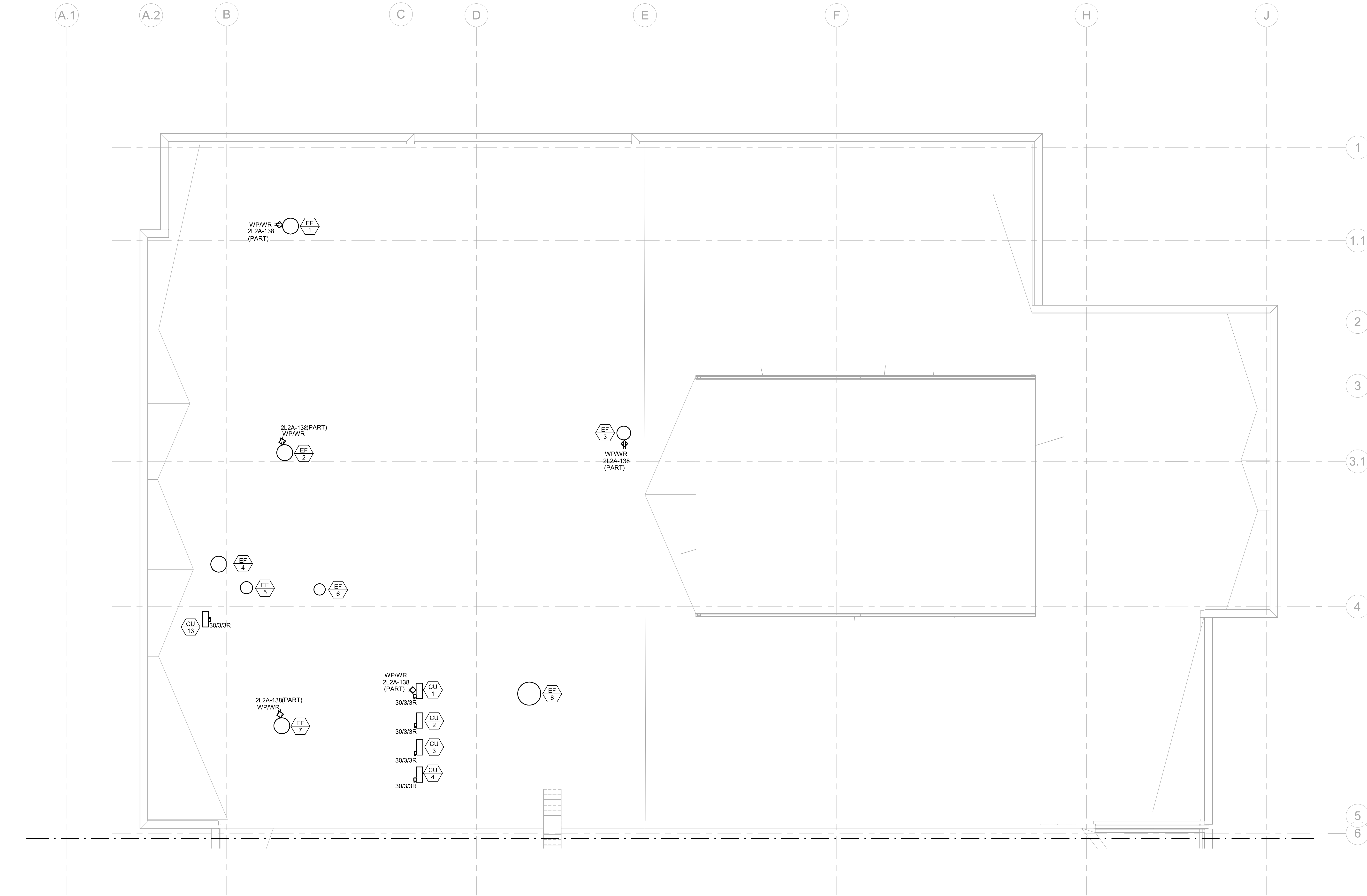
MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - OUTDOOR				
CU 1	ROOF - AREA A	2L2A	162,164	
CU 2	ROOF - AREA A	2L1A	162,164	
CU 3	ROOF - AREA A	2L1A	166,168	
CU 4	ROOF - AREA A	2L2A	166,168	
CU 13	ROOF - AREA A	2L2A	158,160	
FAN				
EF 1	ROOF - AREA A	2L2A	140	A
EF 2	ROOF - AREA A	2L2A	142	A
EF 3	ROOF - AREA A	2L2A	144	A
EF 4	ROOF - AREA A	2L2A	146	A
EF 5	ROOF - AREA A	2L2A	118	A
EF 6	ROOF - AREA A	2L2A	148	A
EF 7	ROOF - AREA A	2L2A	150	A
EF 8	ROOF - AREA A	2L2A	152,154	A

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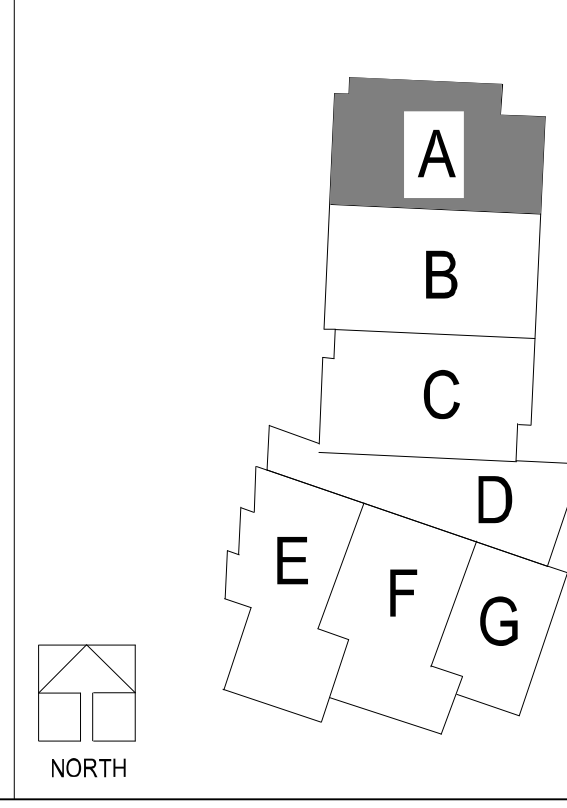
NOTES:

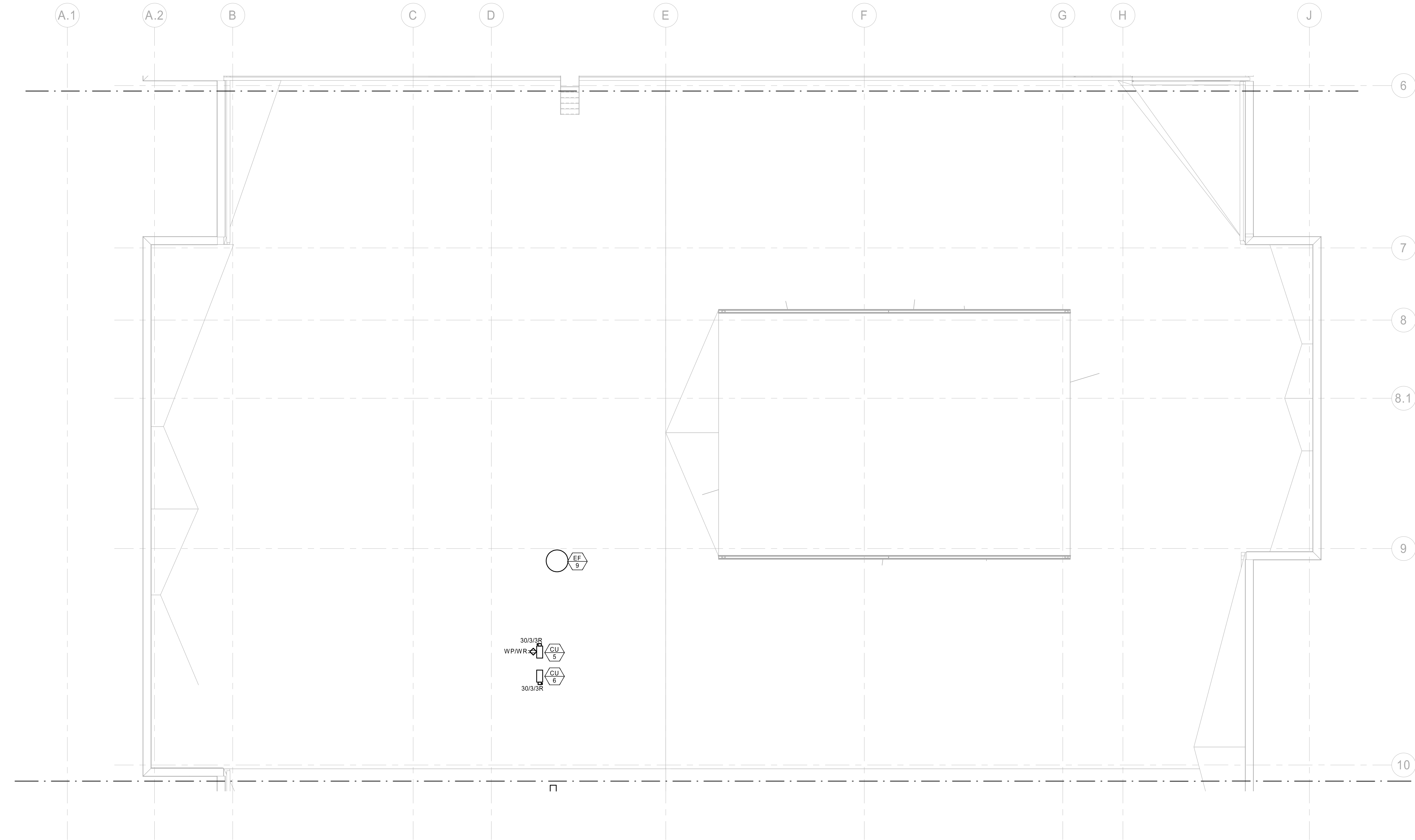
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① EQUIPMENT CONNECTION ROOF PLAN - AREA A
1/8" = 1'-0"

KEY PLAN





① EQUIPMENT CONNECTION ROOF PLAN - AREA B
1/8" = 1'-0"

EQUIP CONN. - ROOF - AREA B				
MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - OUTDOOR				
CU 5	ROOF - AREA B	2L1B	166,168	
CU 6	ROOF - AREA B	2L2B	166,168	
FAN				
EF 9	ROOF - AREA B	2L2B	158,160	A

GENERAL NOTES:

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/09/2020

DLR Group

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STATE OF MISSOURI
CURTIS A. OLDS
NUMBER
PE-2018036640
PROFESSIONAL ENGINEER

Oct 8 2020
CURTIS A. OLDS
LICENSE # PE-2018036640

HENDERSON

ENGINEERS

8345 IOWA DRIVE, SUITE 300
JEFFERSON, MO 64131
TEL: 816.714.0001
WWW.HENDERSONENGINEERS.COM
MO. CORPORATE NO. E-5680
EXPIRES 12/31/2020

LEE'S SUMMIT MIDDLE SCHOOL #4
LEE'S SUMMIT R-7 SCHOOL DISTRICT
1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

PACKAGE 3 - BUILDING & SITE
10/08/20
REVISIONS

13-20102-00
EQUIPMENT CONNECTION
ROOF PLAN - AREA B
E3.3B

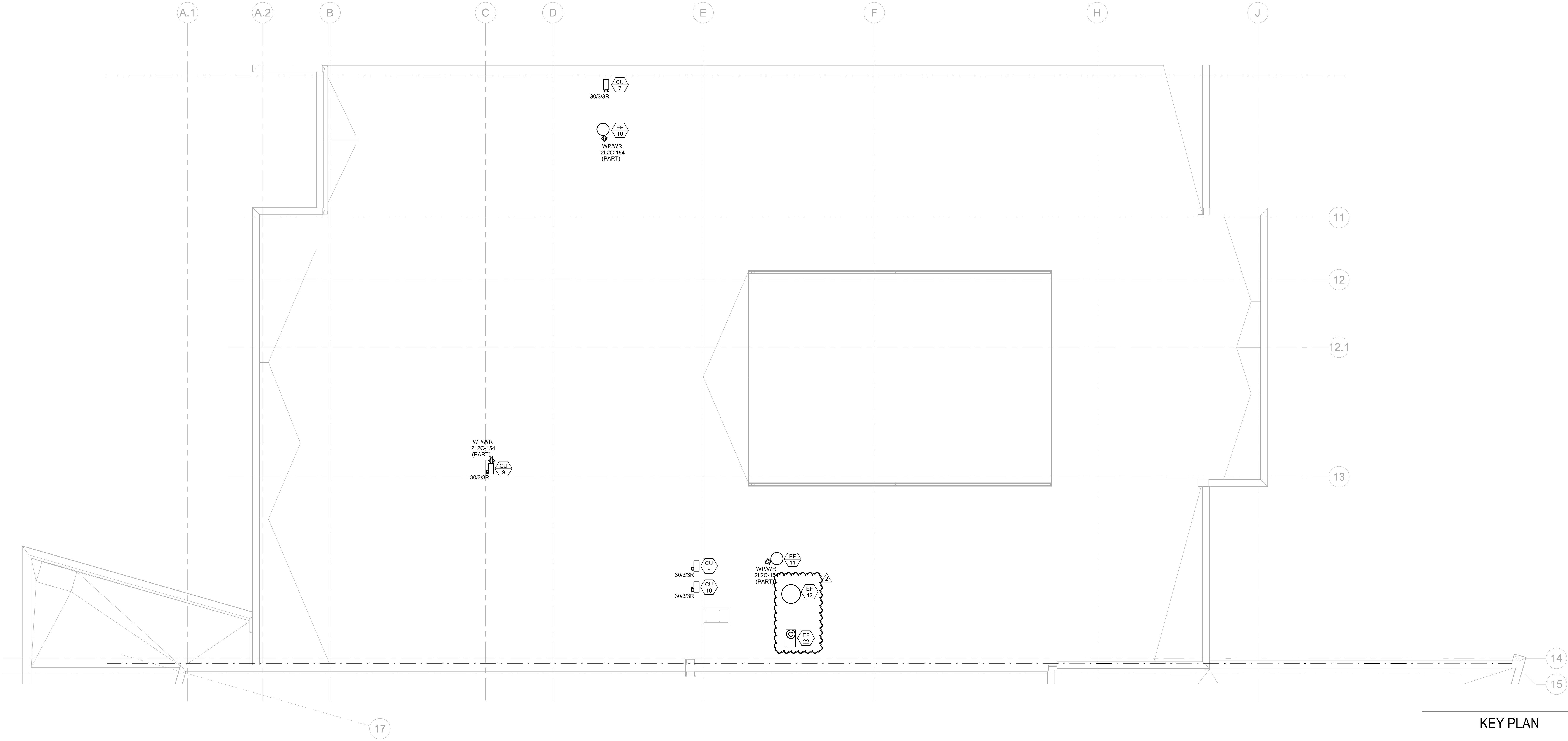
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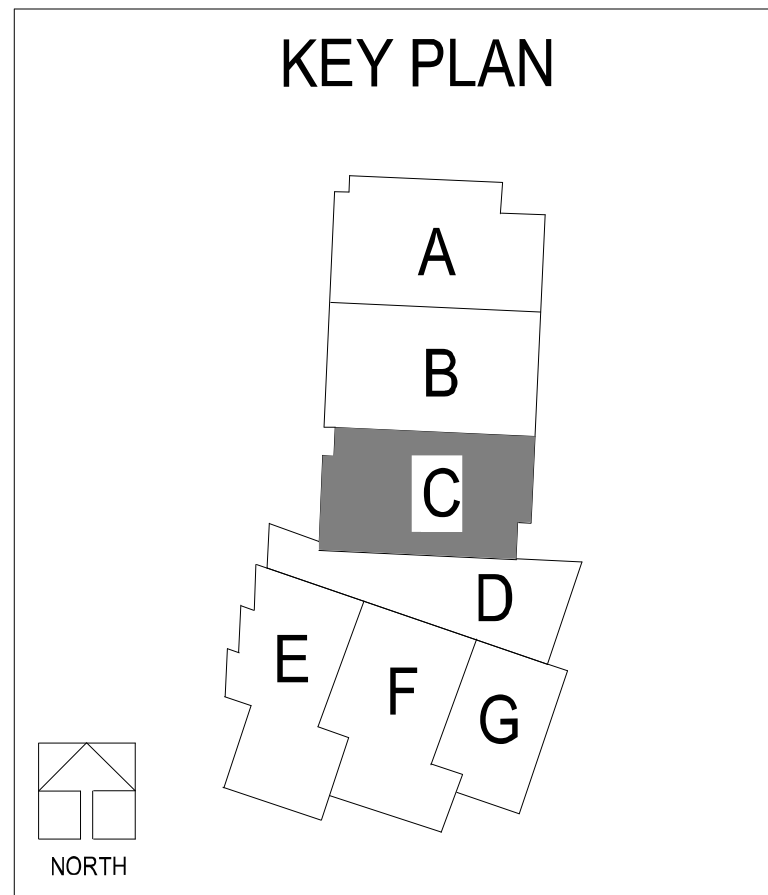
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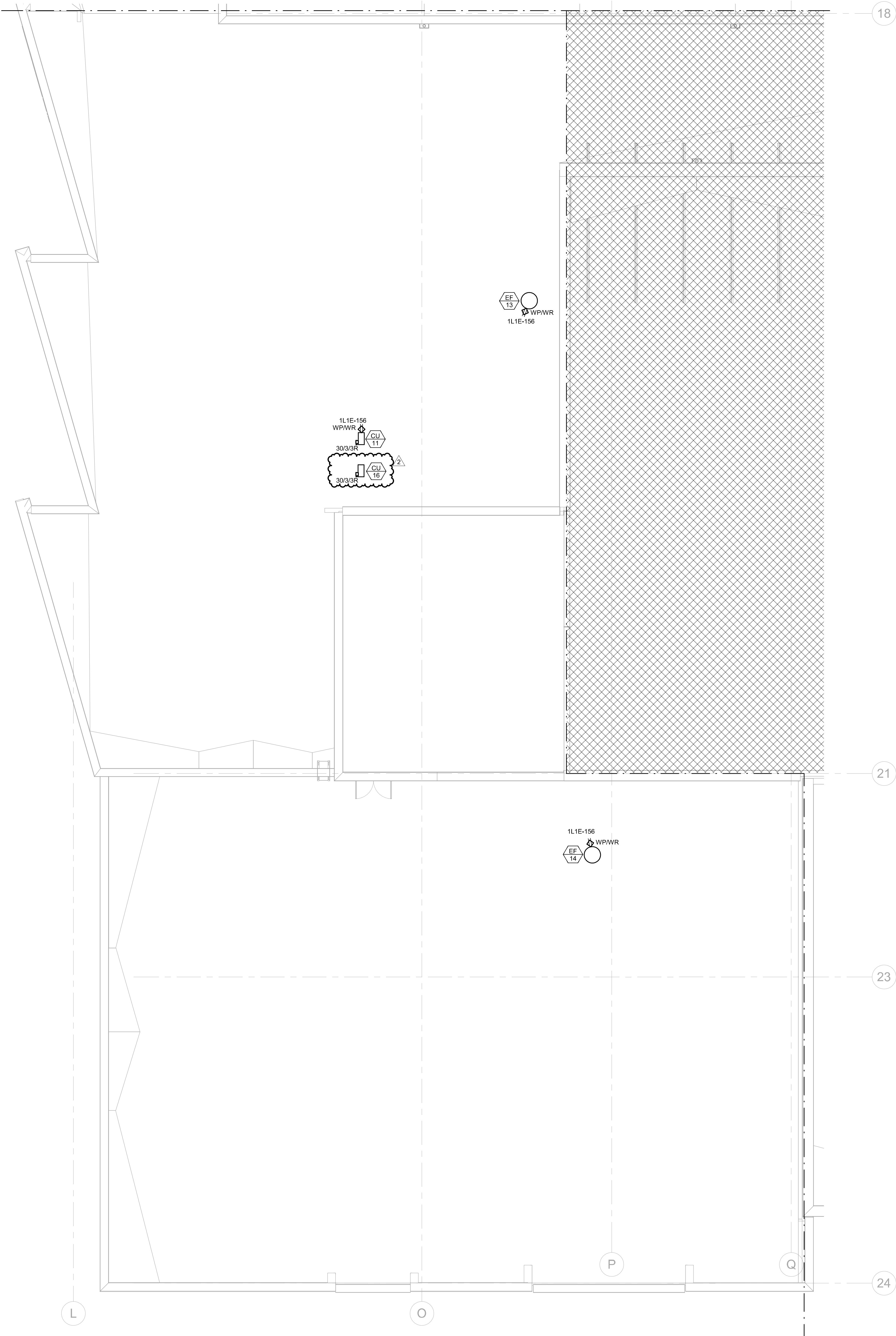
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EQUIP CONN. - ROOF - AREA C				
MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - OUTDOOR				
CU 7	ROOF - AREA C	2L1C	166,168	
CU 8	ROOF - AREA C	2L1C	162,164	
CU 9	ROOF - AREA C	2L2C	162,164	
CU 10	ROOF - AREA C	2L2C	166,168	
FAN				
EF 10	ROOF - AREA C	2L2C	158	A
EF 11	ROOF - AREA C	2L2C	158	A
EF 12	ROOF - AREA C	2L2C	134,136	A
EF 22	ROOF - AREA C	2H2C	26,28,30	A



① EQUIPMENT CONNECTION ROOF PLAN - AREA C
1/8" = 1'-0"

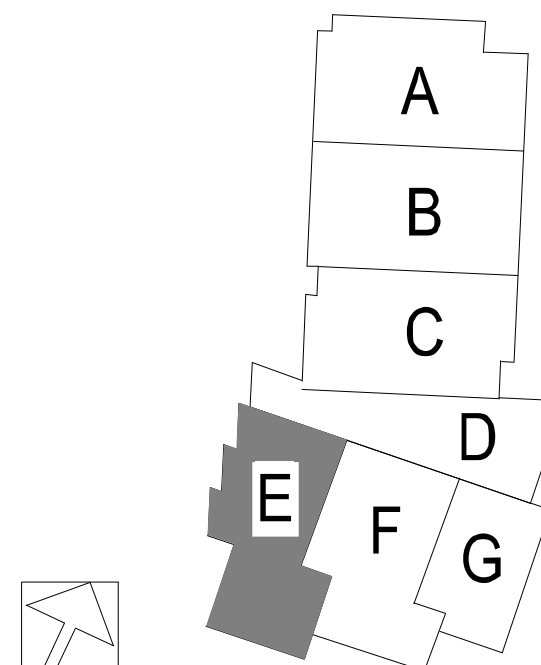




EQUIP CONN. - ROOF - AREA E				
MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - OUTDOOR				
EF 13	ROOF - AREA E	1L1E	162	A
EF 14	ROOF - AREA E	1L1E	160	A

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KEY PLAN



1 EQUIPMENT CONNECTION ROOF PLAN - AREA E
1/8" = 1'-0"

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

12/09/2020

DLR Group

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HENDERSON ENGINEERS

8345 LINDA DRIVE, SUITE 300
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MO. CORPORATE NO. E-5650
EXPIRES 12/31/2020

LEE'S SUMMIT MIDDLE SCHOOL #4

LEE'S SUMMIT R-7 SCHOOL DISTRICT

1001 SE BAILEY ROAD
LEE'S SUMMIT, MO 64081

PACKAGE 3 - BUILDING & SITE

10/08/20

REVISIONS

ADDENDUM 002

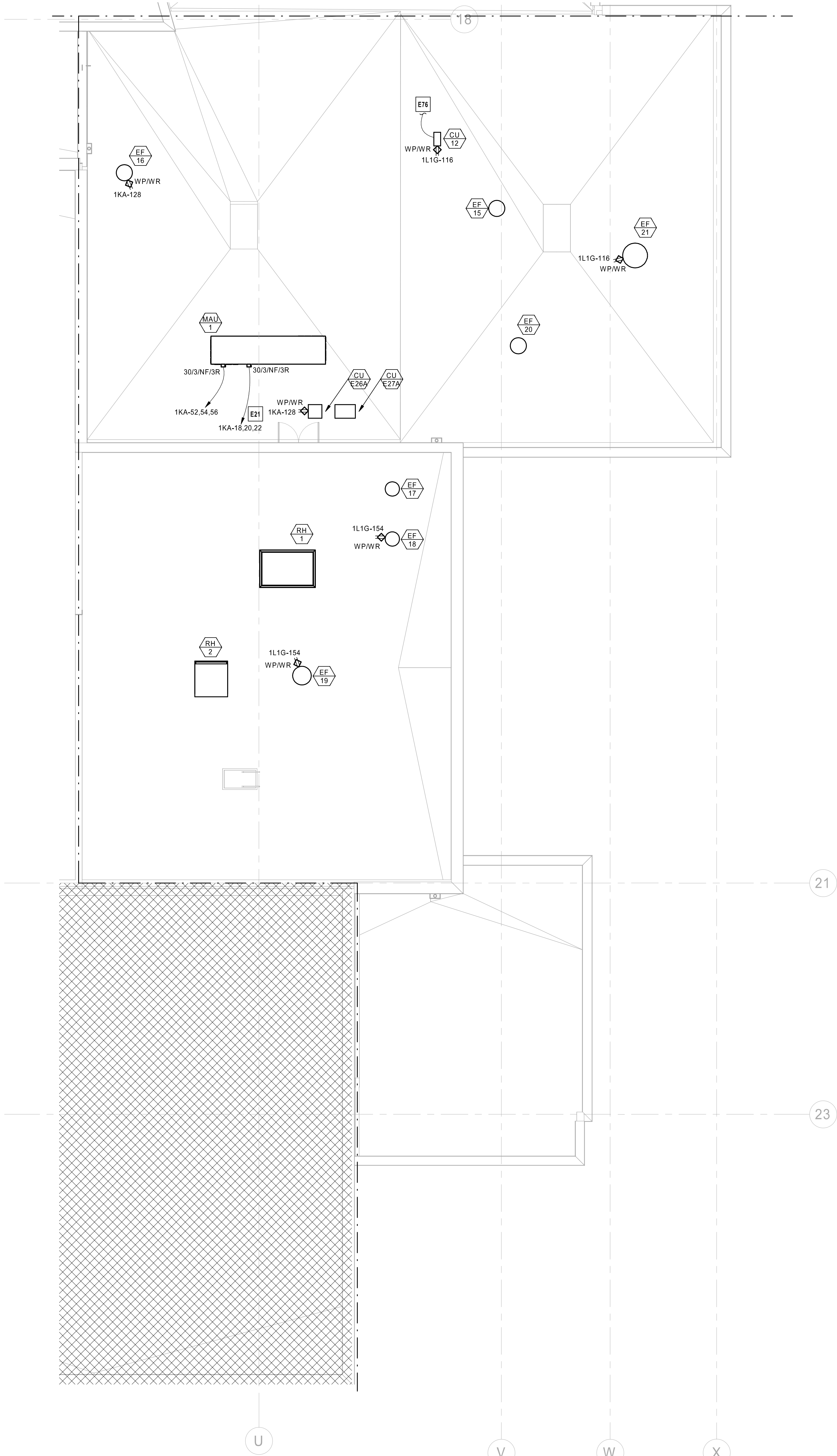
10/19/20

13-20102-00

EQUIPMENT CONNECTION ROOF PLAN - AREA E

E3.3E

① EQUIPMENT CONNECTION ROOF PLAN - AREA G
1/8" = 1'-0"



EQUIP CONN. - ROOF - AREA G

MARK	LOCATION	PANEL	CIRCUIT	NOTES
COMPUTER ROOM - OUTDOOR				
CU 12	ROOF - AREA G	1L1G	166,168	K
FAN				
EF 15	ROOF - AREA G	1L1G	130	A
EF 16	ROOF - AREA G	1KA	83	A,J
EF 17	ROOF - AREA G	1KA	85,87	A,I
EF 18	ROOF - AREA G	1KA	89,91	A,I
EF 19	ROOF - AREA G	1L1G	134	A
EF 20	ROOF - AREA G	1L1G	136	A
EF 21	ROOF - AREA G	1L1G	138	A
FOOD SERVICE				
CU E26A	ROOF - AREA G	1KA	40,42,44	K
CU E27A	ROOF - AREA G	1KA	46,48,50	K
RTU				
MAU 1	ROOF - AREA G	1KA	52,54,56	H,K

GENERAL NOTES:

- COORDINATE ALL FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-INS.
- REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION WITHIN DIVISION 26 SCOPE SUCH AS INTERLOCKING WITH CONTROLS OR OTHER EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 22 AND 23 CONTRACTORS TO PROVIDE EXACT POWER REQUIREMENTS FOR ALL SUBMITTED EQUIPMENT THAT DIFFERS FROM THE BASIS OF DESIGN.

NOTES:

- DISCONNECTING MEANS (FRACTIONAL HP SWITCH, (FUSED) DISCONNECT SWITCH) AND/OR CONTROLLER (STARTER, VFD) PROVIDED BY DIVISION 23 CONTRACTOR OR FACTORY MOUNTED.
- PROVIDE UNIT MOUNTED FRACTIONAL HP MOTOR RATED SWITCH AS DISCONNECTING MEANS.
- INDOOR UNIT OF SPLIT SYSTEM POWERED VIA OUTDOOR CONDENSING UNIT. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
- DISCONNECTING MEANS PROVIDED VIA CORD AND PLUG CONNECTION.
- LINE VOLTAGE POWER CONNECTED TO DIVISION 23 PROVIDED LOW VOLTAGE, UNIT MOUNTED, EQUIPMENT TRANSFORMER, RE: MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
- DISCONNECTING MEANS PROVIDED BY LOCKABLE CIRCUIT BREAKER, RE: ONE-LINE DIAGRAM (E8.X) OR PANEL SCHEDULES (E6.X).
- EQUIPMENT PROVIDED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR. CONTRACTOR SHALL CONFIRM CONTROLLER/EQUIPMENT PAIRING WITH MECHANICAL PLANS AND SCHEDULES.
- MAKE UP AIR UNIT HAS TWO POWER CONNECTIONS, CIRCUIT AS SHOWN ON PLAN, COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN KITCHEN EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM, COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE ALL INTERCONNECTION BETWEEN DISHWASHER EXHAUST HOOD AND ROOF MOUNTED EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM, COORDINATE REQUIREMENTS WITH MANUFACTURER.
- DIVISION 26 CONTRACTOR TO PROVIDE NON-FUSED/FUSED SWITCH SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NEC.

☐ ELECTRICAL PLAN NOTES:

- E21 ROUTE CIRCUIT FOR MAKEUP AIR UNIT SUPPLY FAN THROUGH THE HOOD CONTROL PANEL. REFER TO SHEET E4.1 FOR MORE INFORMATION. COORDINATE REQUIREMENTS WITH MANUFACTURER.
- E76 ROUTE CIRCUIT TO ASSOCIATED INDOOR UNIT. REFER TO MECHANICAL PLANS FOR MORE INFORMATION.

KEY PLAN

