

MECHANICAL AND PLUMBING SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

	SHEET METAL
	HIGH EFFICIENCY ROUND DUCT TAKEOFF (WITH & WITHOUT MANUAL DAMPER)
	SPIN-IN ROUND DUCT TAKEOFF (WITH & WITHOUT MANUAL DAMPER)
	CONICAL BELLMOUTH ROUND TAKEOFF
	ROUND DUCT RUNOUT WITH FLEX DUCT
	DUCTWORK ELBOW (WITH & WITHOUT TURNING VANES)
	FIRE/DAMPER
	FIRE/SMOKE DAMPER
	SO-SMOKE DAMPER
	RO-BACKDRAFT DAMPER (GRAVITY)
	AUTOMATIC MOTORIZED DAMPER
	SUPPLY DIFFUSER AND DIFFUSER CALLOUT (CHECK SIZE, TYPE AND CFM)
	LINEAR/SLOT DIFFUSER
	RETURN GRILLE OR EXHAUST REGISTER
	SUPPLY AIR FLOW INDICATOR
	THERMOSTAT
	TEMPERATURE SENSOR
	HUMIDISTAT
	CONTROL WIRING
MEDICAL GAS	MEDICAL GAS
	MEDICAL VACUUM PIPING
	OXYGEN PIPING
	NITROGEN OXIDE PIPING
	MEDICAL COMPRESSED AIR PIPING
	NITROGEN PIPING
	CARBON DIOXIDE PIPING
	VACUUM VENT PIPING
	WASTE ANESTHETIC GAS DISPOSAL PIPING
	MEDICAL GAS VENT PIPING
	MEDICAL GAS OUTLET W/ DESIGNATION (RE: BELOW)
	OXYGEN
	NITROGEN
	NITROGEN OXIDE
	WASTE ANESTHETIC GAS DISPOSAL
	CARBON DIOXIDE
	MEDICAL VACUUM
	SURGICAL AIR
	MEDICAL SLIDE
GENERAL SYMBOLS	GENERAL SYMBOLS
	INDICATES CONNECT TO EXISTING
	INDICATES ELEVATION

ELECTRICAL SYMBOL LEGEND

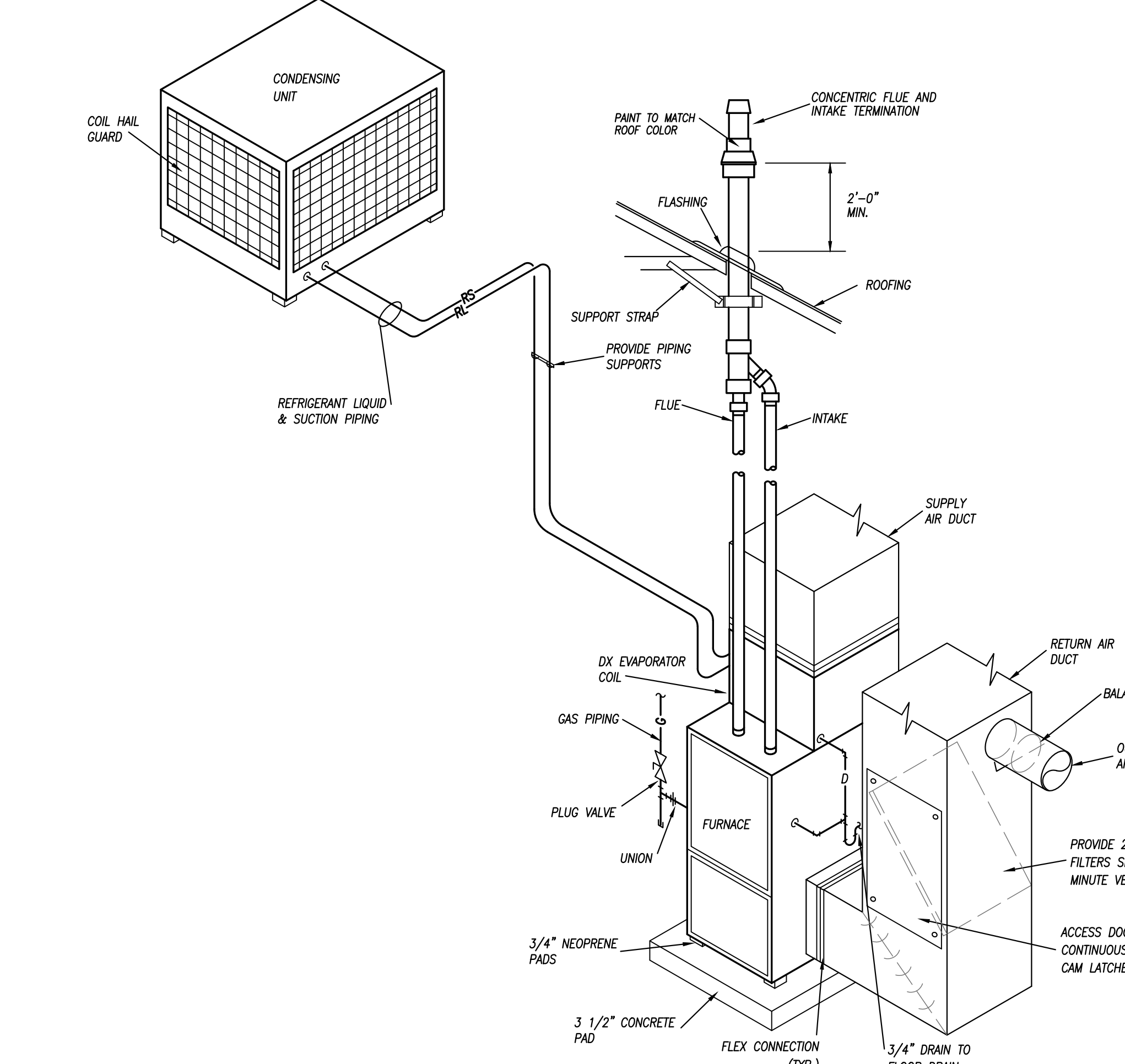
SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

CIRCUITING	CIRCUITING
	HOME RUN (2#12 1#125 UNG)
	INDICATES 2 PHASE, 1 N, & 1 GRD CONDUCTOR
	HOME RUN: INDICATES SHARED CIRCUIT
	HOME RUN: INDICATES #10 CONDUCTORS ENTIRELY
UTILITIES	UTILITIES
	UNDERGROUND ELECTRICAL
	OVERHEAD ELECTRICAL
	TELECOMMUNICATIONS CONDUIT
	UNDERGROUND TELECOMMUNICATIONS CONDUIT
LIGHTING	LIGHTING
	FLUORESCENT LIGHT FIXTURE
	FLUORESCENT STRIP FIXTURE
	SURFACE/RECESSED LIGHT FIXTURE
	WALL-MOUNTED LIGHT FIXTURE
	POLE-MOUNTED LIGHT FIXTURE
	EXIT LIGHT
	BATTERY-OPERATED EMERGENCY LIGHT (WALL MTD)
	BATTERY-OPERATED EMERGENCY LIGHT (CEILING MTD)
	WALL-MOUNTED COMBINATION EXIT LIGHT/BATTERY-OPERATED EMERGENCY LIGHT
	LIGHT SWITCH - SINGLE POLE
	LIGHT SWITCH - 3-WAY
	LIGHT SWITCH - 4-WAY
	LIGHT SWITCH - KEY
	LIGHT SWITCH - DIMMER
	LIGHT SWITCH - PILOT LIGHT
	LIGHT SWITCH - 2 POLE
	LIGHT SWITCH - 3-WAY DIMMER
	WALL-MOUNTED MOTION SWITCH
	CEILING-MOUNTED MOTION SWITCH
	SWITCHBANK - REFER TO DETAILS
	DIMMER BOARD
	REMOTE CONTROL SWITCH AS SCHEDULED
	TIMECLOCK - REFER TO PLANS / DETAILS
EQUIPMENT	EQUIPMENT
	DISCONNECT SWITCH - RE: PLANS FOR INFORMATION
	MAGNETIC MOTOR STARTER
	COMBINATION DISCONNECT SWITCH / MOTOR STARTER
	TOGGLE-TYPE DISCONNECT, FURNISH WITH THERMAL MOTOR PROTECTION WHERE SERVING PUMPS/PUMPS
	SURFACE PANELBOARD
	RECESSED PANELBOARD
	DISTRIBUTION PANELBOARD
	SWITCHBOARD, FEEDER/MAIN CIRCUIT BREAKER SECTION AND DISTRIBUTION SECTION
GENERAL SYMBOLS	GENERAL SYMBOLS
	INDICATES CONNECT TO EXISTING
	INDICATES ELEVATION

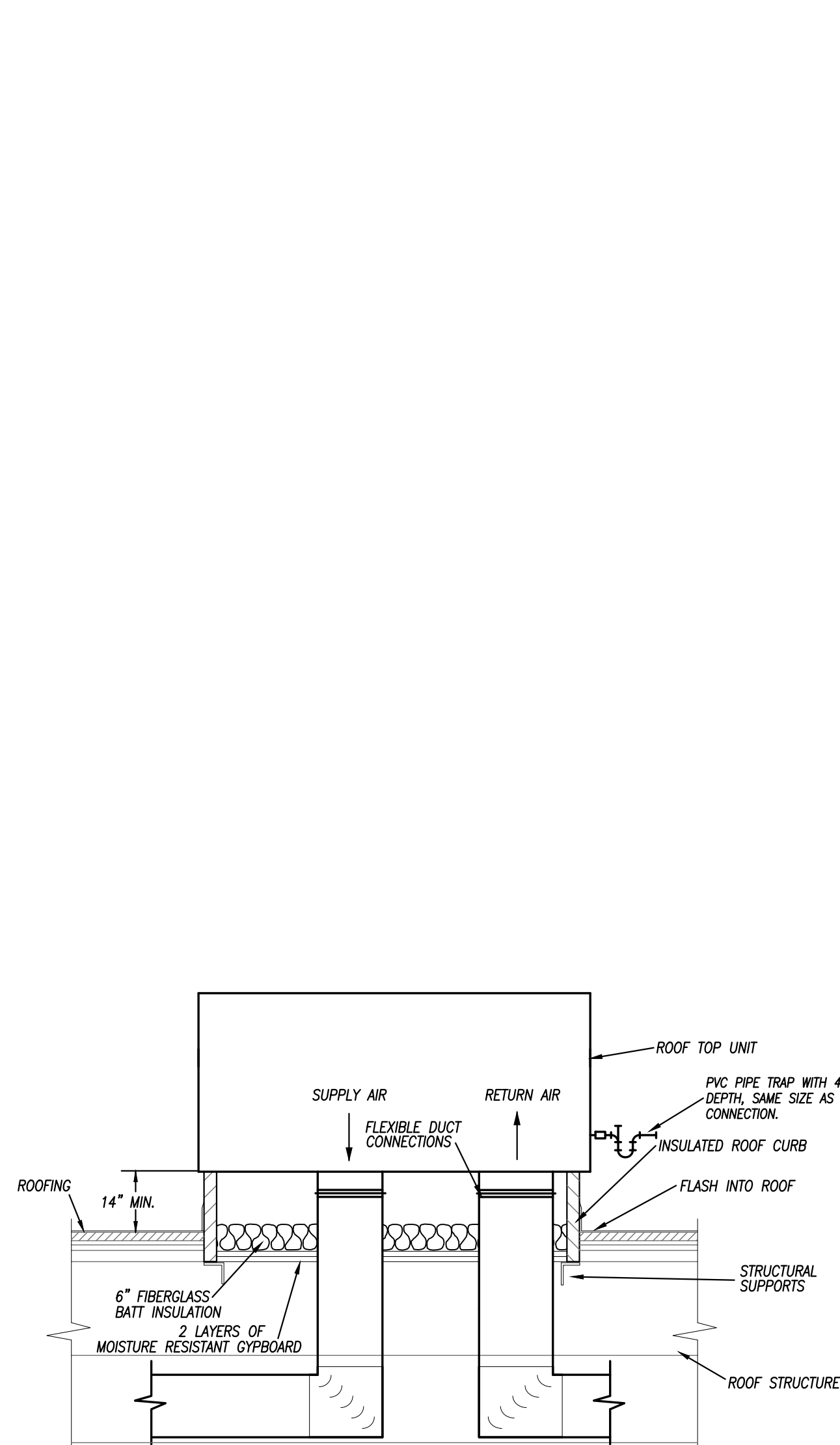
POWER DEVICES	POWER DEVICES
	DUPLICATE RECEPTACLE
	LINE THRU DEVICE INDICATES ABOVE COUNTER
	SPECIAL DUPLICATE RECEPTACLE (PFC, ISOLATED GROUND, ETC.)
	QUADREX RECEPTACLE
	SIMPLEX RECEPTACLE W/NEMA CONFIG AS NOTED
	MULTI-POLE RECEPTACLE W/NEMA CONFIG AS NOTED
	VISUAL NOTIFICATION DEVICE WITH CANDELA RATING, MINIMUM OF 75cd RATING
	RECEPTACLE/DEVICE MOUNTED IN 'TOMBSTONE'
	POKE-THRU WITH POWER
	POKE-THRU WITH TELECOMMUNICATIONS
	POKE-THRU WITH TELECOM AND TELECOM
	SINGLE GANG FLOOR BOX (2, 3, 4 GANG SIMILAR)
	DIVIDED POWER POLE
	CLOCK RECEPTACLE
	PLUG MOLD / WIRE MOLD AS SPECIFIED
	JUNCTION BOX
	THERMOSTAT - ELECTRIC
	PUSH BUTTON
	MOTOR
TELEPHONE/DATA	TELEPHONE/DATA
	TELEPHONE OUTLET (SINGLE-GANG BOX WITH (1) 3/4\"/>
	LINE THRU DEVICE INDICATES ABOVE COUNTER
	DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4\"/>
	TELEPHONE/DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4\"/>
	PHONE OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO
	DATA OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO
	PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO
	WALL-MOUNTED WIRELESS INTERNET TRANSMITTER
	CEILING-MOUNTED WIRELESS INTERNET TRANSMITTER
AUDIO/VISUAL	AUDIO/VISUAL
	TELEVISION OUTLET (SINGLE GANG BOX WITH (1) 3/4\"/>
	REVERSE TELEVISION OUTLET - CABLE TO HEAD END
	TEACHER'S DESK CONNECTIONS - RE: DETAILS
	WALL SPEAKER
	CEILING SPEAKER
	WALL SPEAKER - HORN TYPE
	CEILING SPEAKER - HORN TYPE
	CEILING SPEAKER - SUBWOOFER
	VOLUME CONTROL
	INTERCOM CALL STATION
	INTERCOM HANSET
	SOUND SYSTEM AUDIO JACK
	REMOTE MICROPHONE CONTROL
	PUBLIC ADDRESS SYSTEM AMPLIFIER
	INTERCOM MASTER STATION

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	ELEV	ELEVATION	MLO	MAIN LUGS ONLY
AF	ABOVE FINISHED FLOOR	EM	EMERGENCY FIXTURE/DEVICE	NFA	NET FREE AREA
AFS	ABOVE FINISHED GRADE	ENT	ENTERING WATER TEMPERATURE	NL	NIGHT LIGHT
AG	ABOVE GRADE	EX	EXISTING ITEM	OA	OUTSIDE AIR
AHJ	AUTHORITY HAVING JURISDICTION	FFA	FROM FLOOR ABOVE	ORD	OVERFLOW ROOF DRAIN
AHU	AIR HANDLING UNIT	FTB	FROM FLOOR BELOW	P/C	PLUMBING CONTRACTOR
ARCH	ARCHITECT	FTD	FINISHED FLOOR CLEAN OUT	PSI	POUNDS PER SQUARE INCH
BFP	BACKFLOW PREVENTER	FGC	FLUSH GRADE CLEAN OUT	PVC	POLYVINYLCHLORIDE
BS	BELOW GRADE	FL	FLOOR LINE	RA	RETURN AIR
BLDG	BUILDING	FLR	FLOOR	REF/REF	REFERENCE
BMS	BUILDING MANAGEMENT SYSTEM	FR	FIRE PROTECTION	RF	RELIEF FAN
C	CONDUIT	FTM	FEET PER MINUTE	RI	RELOCATED ITEM
CA	CANDELA	FWC	FLUSH WALL CLEAN OUT	RPZ	REDUCED PRESSURE ZONE
CD	COLD DECK	G	GROUND / GANG	RR	RESTROOM
CLS	COILING	G/C	GENERAL CONTRACTOR	SA	SUPPLY AIR
CM	COORDINATE MOUNTING HEIGHT	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SPD	SURGE PROTECTIVE DEVICE
CO	CLEAN OUT	GM	GALLONS PER MINUTE	ST	SHUNT TRIP
CTE	CONNECT TO EXISTING	HD	HOT DECK	TA	TRANSFER AIR
DCVA	DOUBLE CHECK VALVE ASSEMBLY	HG	HEATING	TA	TO FLOOR ABOVE
DCW	DOMESTIC COLD WATER	IG	ISOLATED GROUND	TBB	TO FLOOR BELOW
DDC	DIRECT DIGITAL CONTROLS	JB	JUNCTION BOX	TP	TYPICAL
DF	DRAINING FOUNTAIN	LED	LIGHT EMITTING DIODE	TY	TYPICAL
DHW	DOMESTIC HOT WATER	LWT	LEAVING WATER TEMPERATURE	UN	UNLESS NOTED OTHERWISE
DWR	DOMESTIC HOT WATER RETURN	M/C	MECHANICAL CONTRACTOR	VVF	VARIABLE REFRIGERANT FLOW
DA	DAMETER	M	MADE UP AIR UNIT	VNR	VENT THROUGH ROOF
DN	DOWN	MAU	MAKE UP AIR UNIT	WCO	WALL CLEANOUT
E/C	ELECTRICAL CONTRACTOR	MCB	MAIN CIRCUIT BREAKER	WG	WIRE GUARD
EA	EXHAUST AIR	MCH	MECHANICAL	WP	WEATHERPROOF
EDF	ELECTRIC DRINKING FOUNTAIN	MH	MANHOLE		



FURNACE AND CONDENSING UNIT DETAIL
NO SCALE



ROOF TOP UNIT MOUNTING DETAIL
NO SCALE

FIRE SEALING NOTES

- COORDINATE CONSTRUCTION OF OPENINGS AND PENETRATING ITEMS TO ENSURE THAT THROUGH-PENETRATION FIRESTOP SYSTEMS ARE INSTALLED ACCORDING TO SPECIFIED AND APPLICABLE UL REQUIREMENTS.
- COORDINATE SIZING OF SLEEVES, OPENINGS, CORE-DRILLED HOLES, OR CUT OPENINGS TO ACCOMMODATE THROUGH-PENETRATION FIRESTOP SYSTEMS.
- DO NOT COVER UP THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLATIONS UNTIL EXAMINED BY INSPECTOR, IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- COMPATIBILITY: PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS THAT ARE COMPATIBLE WITH ONE ANOTHER WITH THE SUBSTRATES FORMING OPENINGS; AND WITH THE ITEMS, IF ANY, PENETRATING THROUGH-PENETRATION FIRESTOP SYSTEMS UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.
- PROVIDE COMPONENTS FOR EACH THROUGH-PENETRATION FIRESTOP SYSTEM THAT ARE NEEDED TO INSTALL FULL MATERIALS. USE ONLY COMPONENTS SPECIFIED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER AND APPROVED BY QUALIFIED TESTING AND INSPECTING AGENCY FOR FIRESTOP SYSTEMS INDICATED.
- PROVIDE SLEEVES THROUGH ALL FIRE-RATED WALLS AND FILL JOISTS SURROUNDING SLEEVES AND INTERIOR TO SLEEVES AROUND PIPING WITH FIRE STOP PUTTY WITH ULL LISTED 3 HOUR RATING INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- FIRE SEAL ALL PIPING, CONDUIT, CABLE, ETC. PENETRATIONS ROUTED THROUGH FIRE RATED WALLS.
- PROVIDE FIRE RATED ENCLOSURES OR WRAPS ON LIGHT FIXTURES AND OTHER ITEMS PENETRATING FIRE RATED CEILING, FLOOR/CEILING/ CEILING/ROOF ASSEMBLIES TO MAINTAIN UL LISTING FOR CONSTRUCTION.

GEN. MECHANICAL NOTES

- COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL MECHANICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
- ANY POWER FOR CONTROL SYSTEMS TO BE PROVIDED BY E/C IS INDICATED ON ELECTRICAL PLANS. ANY ADDITIONAL LINE VOLTAGE OR LOW VOLTAGE POWER REQUIRED BY THE M/C OR SUBCONTRACTORS TO HAVE A FULLY FUNCTIONING SYSTEM SHALL BE PROVIDED BY THE M/C CONTRACTOR OR SUBS.
- ALL EQUIPMENT SHALL BE ADEQUATELY AND PROPERLY SUPPORTED AND FASTENED FROM STRUCTURE.
- ALL EQUIPMENT AND ACCESSORIES INSTALLED IN CONCEALED SPACES REQUIRING ACCESS SHALL BE PROVIDED WITH ACCESS DOORS MEETING ANY FIRE REQUIREMENTS OF THE WALL/CEILING THEY ARE INSTALLED.
- EACH AIR HANDLING UNIT OVER 2000CFM SHALL BE PROVIDED WITH A SMOKE DETECTOR TO SHUT DOWN THE UNIT PER IMC 606 AS REQUIRED BY AHJ. COORDINATE WITH OTHER TRADES.
- START UP AND ADJUST ALL MECHANICAL SYSTEMS IN OPERATION IN ACCORDANCE WITH THEIR INTENDED PURPOSES. SUBMIT BALANCE AND START UP REPORTS TO THE A/E. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

GENERAL PLUMBING NOTES

- COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL PLUMBING CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
- NO PIPING SHALL BE INSTALLED WHERE IT WILL SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSTALLED ON THE WARM SIDE OF BUILDING INSULATION, INSULATED AND THE CHASE SHALL BE VENTILATED WITH GRILLES ALLOWING INDOOR AMBIENT CONDITIONS TO CIRCULATE THROUGH THE CHASE.
- PROVIDE CLEANSOUTS IN THE FOLLOWING LOCATIONS:
 - IN ALL HORIZONTAL DRAINS (WITHIN THE BUILDING) NOT MORE THAN 100 FEET APART.
 - IN BUILDING SINKERS LOCATED NO MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANSOUT.
 - EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANSOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.
 - AT THE BASE OF EACH WASTE OR SOIL STACK.
 - NEAR THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER.

GENERAL ELECTRICAL NOTES

- COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
- COORDINATE LOCATIONS OF RECEPTACLES, SWITCHES, ETC. WITH ARCHITECTURAL CASEWORK AND ELEVATIONS.
- REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING HEIGHTS OF ALL DEVICES NOT INDICATED OTHERWISE.
- PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS AND BUSHED FROM VIEW WHERE REASONABLY POSSIBLE.
- CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES FROM VIEW WHERE REASONABLY POSSIBLE.

COORDINATION NOTES

- COORDINATE REQUIREMENTS FOR INSTALLATION OF SYSTEMS AND CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS.
- THE CONTRACTOR SHALL COORDINATE THE ROUTING AND PATH OF ALL SYSTEMS, CONDUITS, PIPES, DUCTS, ETC. WITH THE POSITION AND LAYOUT OF THE STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISERS AND DROPS FOR SYSTEMS AND COMPONENTS AS NEEDED TO INSTALL THE MEP SYSTEMS TO CLEAR STRUCTURE, CEILING, ETC. AND OTHER SYSTEMS IN POTENTIAL CONFLICT WITH ROUTING.
- COORDINATE WORK WITH OTHER TRADES TO INSTALL SYSTEMS ABOVE CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS.
- CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND STRUCTURE/CONSTRUCTION TO INSURE THAT ALL MATERIALS AND EQUIPMENT CAN BE INSTALLED IN THE SPACE ALLOTTED INCLUDING FINISHED SUSPENDED CEILING AND OTHER SPACES, CHASES, ETC. WITHIN THE BUILDING. MAKE MODIFICATIONS THERE TO AS REQUIRED AND APPROVED.
- TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN MAPLE TIME FOR INSTALLATION.
- WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH THOSE TRADES TO INSURE THAT ALL SUBCONTRACTORS HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL CONNECTIONS AND EQUIPMENT. IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.
- COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.
- DRAWINGS SHOW THE GENERAL RUNS OF CONDUITS, PIPING AND DUCTWORK AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF ITEMS NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF SURFACES, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- ADJUST LOCATION OF PIPING, DUCTWORK, ETC. TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND UNENCOUNTERED, DETERMINE THE EXACT ROUTE AND LOCATION OF ITEMS NECESSARY PRIOR TO FABRICATION, MAKE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION IN SYSTEMS AS REQUIRED TO MAINTAIN ADEQUATE CLEARANCES AND HEADROOM.
- WHEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL CONSTRUCTION DRAWINGS AND ORGANIZE ON-SITE MEETINGS WITH ALL RELATED SUBCONTRACTORS TO COORDINATE THE WORK BETWEEN TRADES. DRAWINGS SHALL CLEARLY SHOW THE WORK AND ITS RELATION TO THE WORK OF OTHER TRADES, AND BE SUBMITTED FOR REVIEW PRIOR TO COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD.
- COORDINATE WITH LOCAL UTILITY PROVIDERS FOR THEIR REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY PERMITS, MATERIALS, LABOR AND TESTING TO ACCOMPLISH THE WORK.

GENERAL NOTES

- SOME ROOM NAMES MAY NOT BE SHOWN FOR PURPOSE OF CLARIFYING PLAN. REFER TO ARCHITECTURAL PLANS FOR REFERENCES TO ROOM NAMES NOT SHOWN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND KEEP AT THE JOB SITE AN UP TO DATE SET OF "RECORD DRAWINGS" SHOWING ALL CHANGES FROM THE ORIGINAL PLANS. THE CONTRACTOR SHALL DELIVER THE "RECORD DRAWINGS" TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT ELECTRONICALLY.
- THESE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS (NEW AND EXISTING) DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIAL, ACCESSORIES, ETC. REQUIRED FOR A FULLY COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
- FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT, ETC. SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ARCHITECTURAL PLANS. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM MEP DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE INSTALLATION AND PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THIS.

GEN. RENOVATION NOTES

- DISCONNECT AND REMOVE ANY EQUIPMENT, PIPING OR DUCTWORK THAT WAS INSTALLED AS PART OF THE BUILDING SHELL THAT IS NOT NEEDED OR CONFLICTS WITH THIS BUILD OUT.
- EXISTING UNDERGROUND PIPING LOCATIONS ARE ESTIMATED BASED UPON ANTICIPATED ROUTINGS. FIELD VERIFY EXACT LOCATIONS DURING CONSTRUCTION AND PROVIDE ALL NECESSARY MODIFICATIONS.
- SAWCUT GRADE FLOOR SLABS TO INSTALL NEW PIPING, MECHANICAL SYSTEMS, ELECTRICAL FLOOR BOXES AND ALL ASSOCIATED CONDUIT, ETC. PATCH FLOOR TO MAKE LIKE NEW AFTER INSTALLATION. TAKE CARE TO LOCATE EXISTING CONDUIT, ETC. AND AVOID CUTTING EXISTING CONDUITS BY NOT OVERCUTTING SLAB DEPTH.
- SAWCUT AND CORE DRILL OPENINGS AS REQUIRED FOR ABOVE GRADE SLAB PENETRATIONS. XRAY SLABS TO ASCERTAIN STEEL AND EXISTING CONDUIT PENETRATIONS PRIOR TO CUTTING. VERIFY OPENINGS WITH STRUCTURAL ENGINEER PRIOR TO CUTTING.
- HARDEN CIRCUITS TO 20 AMP, SINGLE POLE BREAKERS IN PANELBOARDS INDICATED. UTILIZE SPARE BREAKERS MADE AVAILABLE BY DEMOLITION, IF NO SPARE BREAKER IS AVAILABLE, PROVIDE NEW BREAKER.
- EXISTING CIRCUITING MAY BE RE-USED WHERE POSSIBLE.
- CONCEAL NEW CIRCUITING IN WALLS WHERE POSSIBLE. FOR NEW DEVICES INSTALLED ON EXISTING SOLID WALLS, CONCEAL CIRCUITING IN WIREMOLD. COORDINATE FINISH AND GENERAL ROUTING OF WIREMOLD WITH ARCHITECT TO BE AS CONCEALED AND/OR ROUTED IN A NEAT AND ORGANIZED CONSISTENT MANNER.

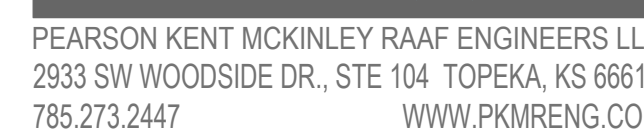
USD 506 LABETTE CO SCHOOLS HVAC UPGRADES

MEADOW VIEW GRADE SCHOOL
1377 21000 RD
PARSONS, KS 67357

ISSUED FOR:	DESCRIPTION	DATE
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CHECKED BY:	SWM	
SHEET TITLE:		
HVAC SYMBOLS & DETAILS		
DATE:	PKMR PROJECT:	22.175
SHEET NUMBER:		

MEADOW VIEW SCHOOL

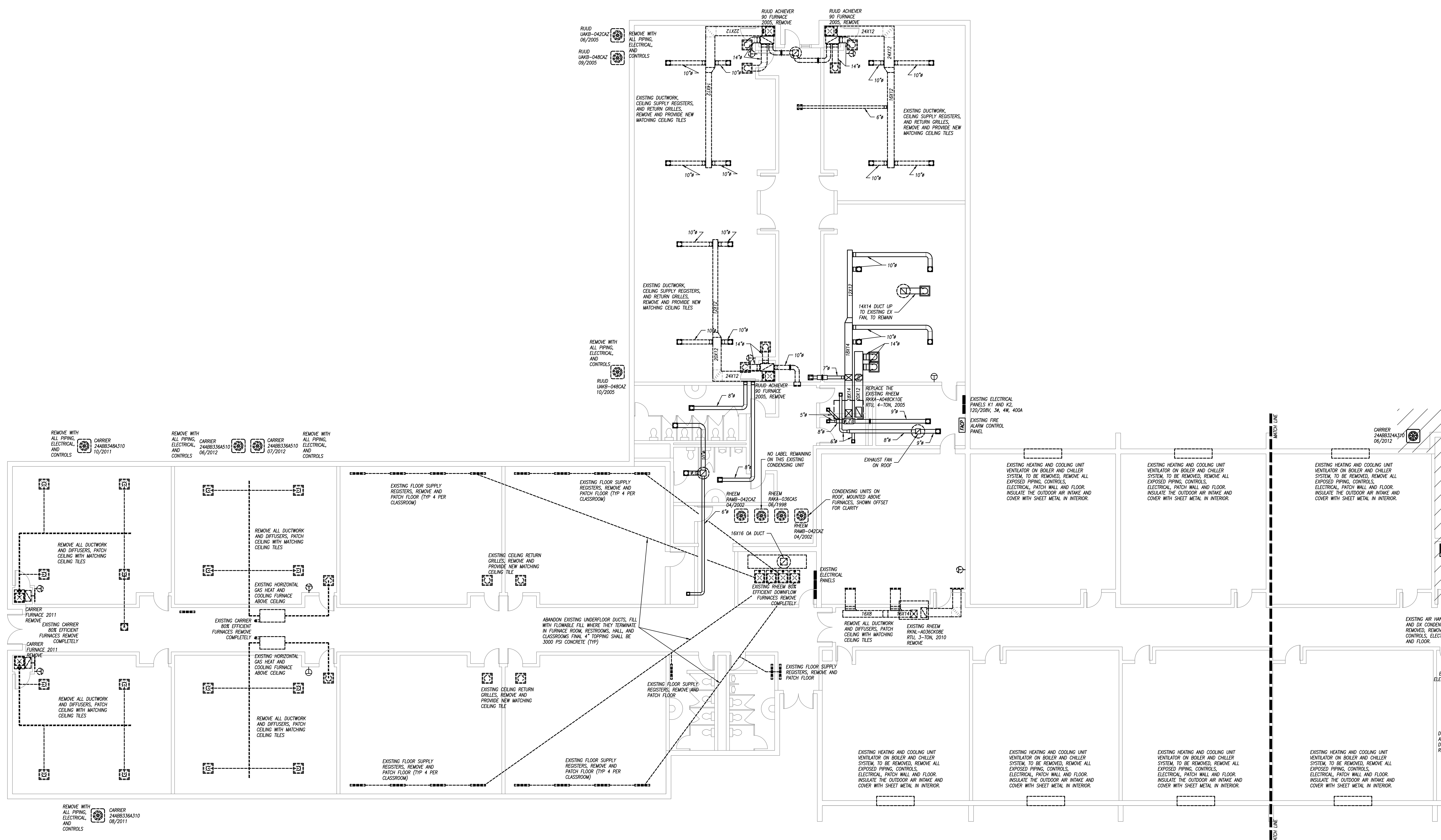
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USD 506 LABETTE CO SCHOOLS
HVAC UPGRADES

**MEADOW VIEW GRADE SCHOOL
1377 21000 RD
PARSONS, KS 67357**

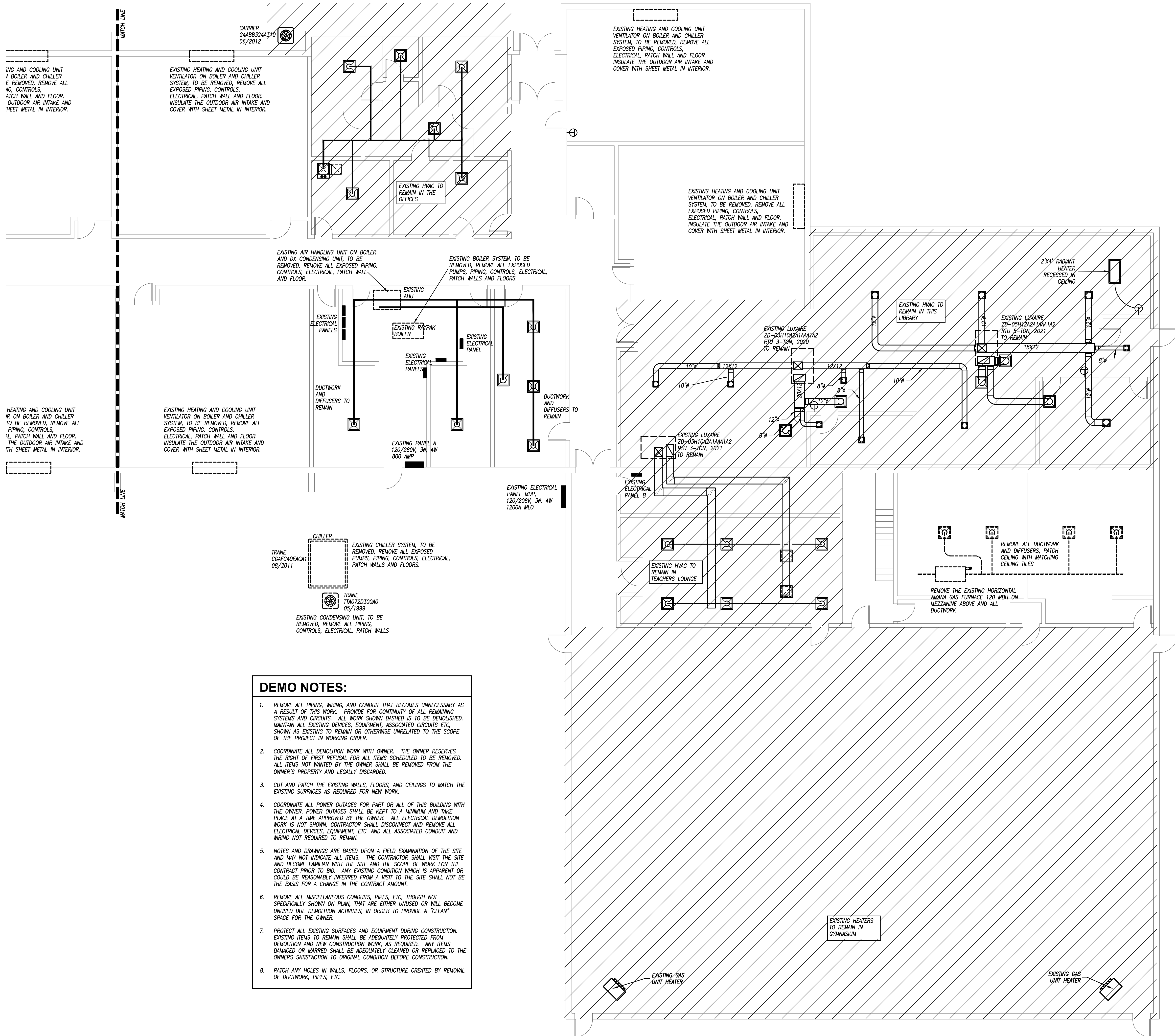
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HVAC DEMO PLAN	
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12/2/22	22.175
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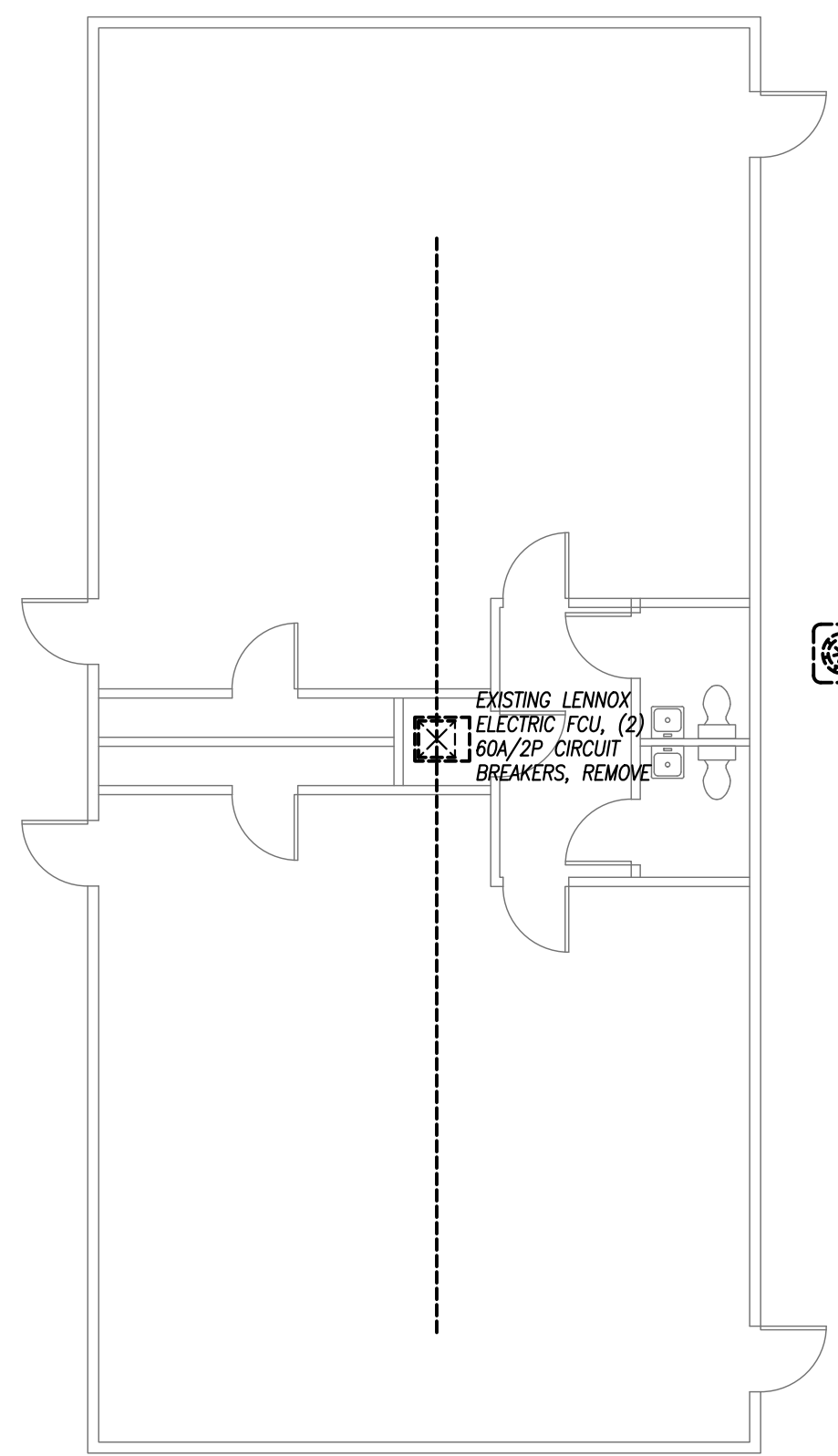


 **WEST AREA FLOOR PLAN**
EXISTING HVAC - DEMOLITION PLAN
1/8" = 1'-0"

MEADOW VIEW SCHOOL



**EAST AREA FLOOR PLAN
EXISTING HVAC - DEMOLITION PLAN**
1/8" = 1'-0"



**ANNEX BUILDING FLOOR
PLAN -EXISTING HVAC - DEMO**
1/8" = 1'-0"

- DEMO NOTES:**
- REMOVE ALL PIPING, WIRING, AND CONDUIT THAT BECOMES UNNECESSARY AS A RESULT OF THIS WORK. PROVIDE FOR CONTINUITY OF ALL REMAINING SYSTEMS AND CIRCUITS. ALL WORK SHOWN DASHED IS TO BE DEMOLISHED. MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC. SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
 - COORDINATE ALL DEMOLITION WORK WITH OWNER. THE OWNER RESERVES THE RIGHT OF FIRST REFUSAL FOR ALL ITEMS SCHEDULED TO BE REMOVED. ALL ITEMS NOT WANTED BY THE OWNER SHALL BE REMOVED FROM THE OWNER'S PROPERTY AND LEGALLY DISCARDED.
 - CUT AND PATCH THE EXISTING WALLS, FLOORS, AND CEILINGS TO MATCH THE EXISTING SURFACES AS REQUIRED FOR NEW WORK.
 - COORDINATE ALL POWER OUTAGES FOR PART OR ALL OF THIS BUILDING WITH THE OWNER. POWER OUTAGES SHALL BE KEPT TO A MINIMUM AND TAKE PLACE AT A TIME APPROVED BY THE OWNER. ALL ELECTRICAL DEMOLITION WORK IS NOT SHOWN. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES, EQUIPMENT, ETC. AND ALL ASSOCIATED CONDUIT AND WIRING NOT REQUIRED TO REMAIN.
 - NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
 - REMOVE ALL MISCELLANEOUS CONDUITS, PIPES, ETC. THOUGH NOT SPECIFICALLY SHOWN ON PLAN, THAT ARE EITHER UNUSED OR WILL BECOME UNUSED DUE DEMOLITION ACTIVITIES, IN ORDER TO PROVIDE A "CLEAN" SPACE FOR THE OWNER.
 - PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DEMOLITION AND NEW CONSTRUCTION WORK, AS REQUIRED. ANY ITEMS DAMAGED OR HARDED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNERS SATISFACTION TO ORIGINAL CONDITION BEFORE CONSTRUCTION.
 - PATCH ANY HOLES IN WALLS, FLOORS, OR STRUCTURE CREATED BY REMOVAL OF DUCTWORK, PIPES, ETC.



pkmr
ENGINEERS

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**USD 506 LABETTE CO SCHOOLS
HVAC UPGRADES**

**MEADOW VIEW GRADE SCHOOL
1377 21000 RD
PARSONS, KS 67357**

ISSUED FOR:	
DESCRIPTION	DATE
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SHEET TITLE:	
HVAC DEMO PLAN	
DATE:	PKMR PROJECT:
12/2/22	22.175
SHEET NUMBER:	
M2	

MEADOW VIEW GRADE SCHOOL
OWNER WILL PURCHASE THIS EQUIPMENT, CONTRACTOR TO RECEIVE AND INSTALL EQUIPMENT

ROOF TOP UNIT SCHEDULE - THREE PHASE ELECTRIC WITH GAS HEAT

PLAN MARK	MANUFACTURER	MODEL NUMBER	SIZE	REFRIGERANT	MINIMUM EFFICIENCY	AIRFLOW	COMPRESSORS	COOLING CAPACITY	CFM	EXTERNAL STATIC	OA CFM	HEATING CAPACITY	ELECTRICAL	WEIGHT	FILTER	NOTES
RTU-1	LUXARE	ZD-05H10B2	5 TON	R-410A	14 SEER	DOWN OR HORIZONTAL	(1) SCROLL	60,100 BTUH	2,000	1.0"	200	100 MBH	208 V, 3 PH, 35 AMP	800 LBS	MERV 13	1,2,3

- NOTES LEGEND
1. PROVIDE ROOF ADAPTER CURB, DISCONNECT SWITCH, HAIL GUARDS, HOT GAS HUMIDITY CONTROL, AND ECONOMIZER
 2. PROVIDE WALL MOUNTED 7-DAY PROGRAMMABLE THERMOSTAT
 3. PROVIDE INTERNAL VIBRATION ISOLATION FOR THE RTU FAN AND COMPRESSORS

OWNER WILL PURCHASE THIS EQUIPMENT, CONTRACTOR TO RECEIVE AND INSTALL EQUIPMENT

MINI-SPLIT DUCTLESS EVAPORATOR/HEAT PUMP SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	NOMINAL SIZE	MAX CFM	ENTERING AIR DRYWET	COOLING MBH	HEATING MBH	ELECTRICAL	MOCF AMPS	MIN CIRCUIT AMPS	DISCONNECT	NOTES
MSEV/MSHP-1	DAIKIN	CEILING RECESSED HYPER HEAT	3.0 TON	990	80/67	35.0	25.0	208/240V, 1P	40	25	YES	1,2,3
MSEV/MSHP-2	DAIKIN	WALL MTD HYPER HEAT	2.5 TON	705	80/67	30.0	23.0	208/240V, 1P	40	25	YES	1,2,3

- NOTES LEGEND
1. REFER TO PLANS FOR QUANTITIES PER SCHOOL - PROVIDE WIRED REMOTE THERMOSTAT, AND CONDENSATE PUMP.
 2. PROVIDE ALL NEEDED ACCESSORIES FOR A COMPLETE INSTALLATION WITH LOW AMBIENT COOLING DOWN TO 0 DEG AMBIENT FOR IT ROOMS AND HYPER HEAT IN ALL UNITS.
 3. VERIFY EXACT REFRIGERANT LINE SIZES WITH MANUFACTURER.

MEADOW VIEW GRADE SCHOOL
OWNER WILL PURCHASE THIS EQUIPMENT, CONTRACTOR TO RECEIVE AND INSTALL EQUIPMENT

FURNACE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CABINET WIDTH	TOTAL CFM	OUTDOOR AIR CFM	STATIC PRESSURE	MOTOR HP/11 EFF	HEAT INPUT BTUH	HEAT OUTPUT BTUH	FLUE OUTLET	COMBUSTION AIR INLET	EVAPORATOR	COOLING CAPACITY	ENTERING AIR DRYWET	LEAVING AIR DRYWET	ELECTRICAL	FILTER	NOTES
F-1	LUXARE	TL9ED06012UH11	21"	1900	225	0.7"	1 HP/ECM	120	108	3"	3"	47XC 060C	5 TON	78/65	57/55	120 V, 1 PH	MERV 13	1

- NOTES LEGEND
1. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT

OWNER WILL PURCHASE THIS EQUIPMENT, CONTRACTOR TO RECEIVE AND INSTALL EQUIPMENT

CONDENSING UNIT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	NOMINAL SIZE	TOTAL MBH	AMBIENT	SUCTION	LIQUID	COMPRESSORS	ELECTRICAL	MOCF AMPS	MIN CIRCUIT AMPS	DISCONNECT	NOTES
CU-1	LUXARE	TCD 60B3	5 TONS	60	100	7/8"	3/8"	1	208/240V, 3PH	35	21	YES	1,2,3

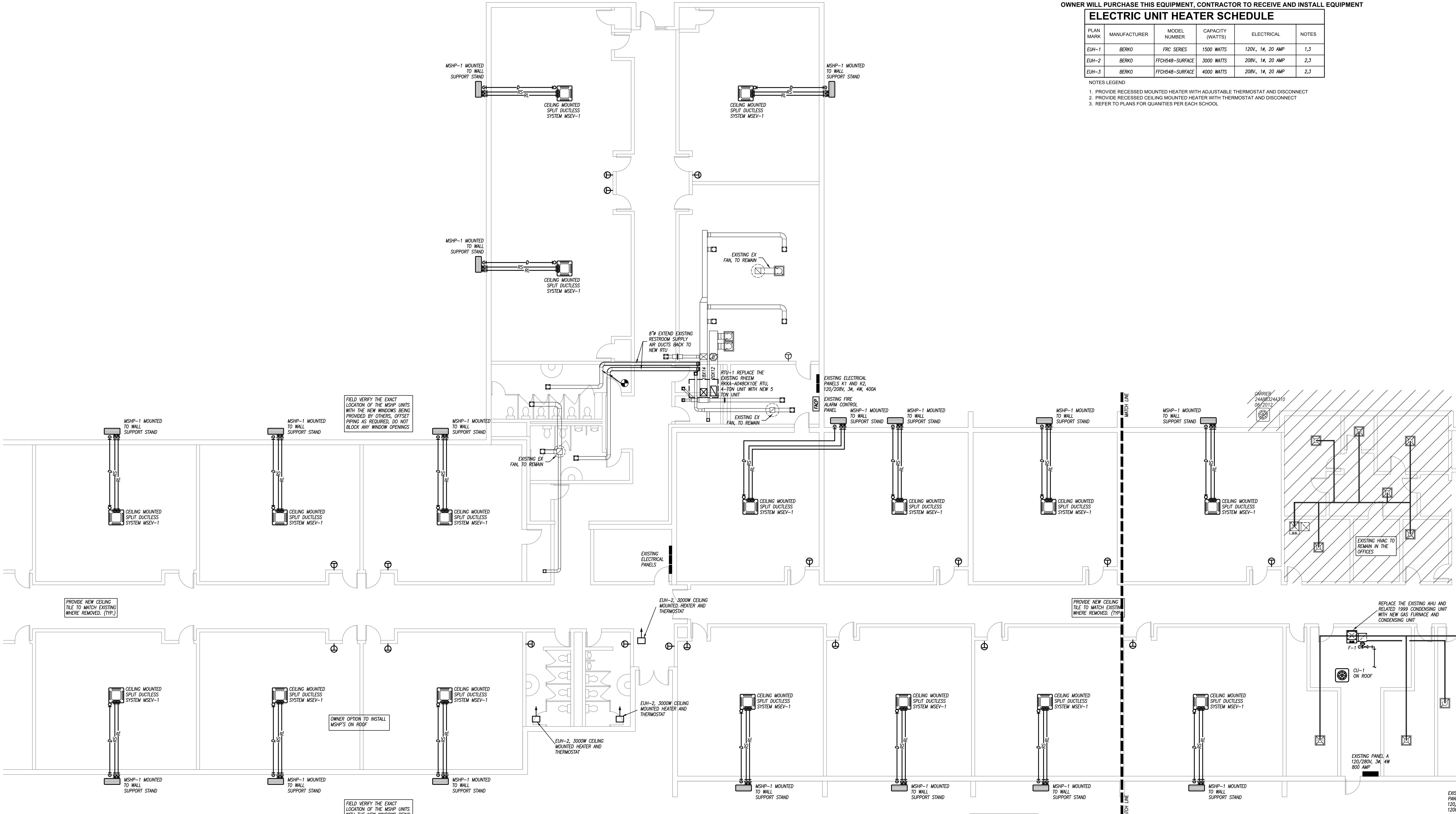
- NOTES LEGEND
1. PROVIDE TXV VALVE, SERVICE VALVES, AND REFRIGERANT ACCUMULATOR AT SUCTION LINE
 2. PROVIDE COIL HAIL GUARDS
 3. VERIFY EXACT REFRIGERANT LINE SIZES WITH MANUFACTURER

OWNER WILL PURCHASE THIS EQUIPMENT, CONTRACTOR TO RECEIVE AND INSTALL EQUIPMENT

ELECTRIC UNIT HEATER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CAPACITY (WATTS)	ELECTRICAL	NOTES
EUH-1	BERKO	FRC SERIES	1500 WATTS	120V, 1P, 20 AMP	1,3
EUH-2	BERKO	FTCH548-SURFACE	3000 WATTS	208V, 1P, 20 AMP	2,3
EUH-3	BERKO	FTCH548-SURFACE	4000 WATTS	208V, 1P, 20 AMP	2,3

- NOTES LEGEND
1. PROVIDE RECESSED MOUNTED HEATER WITH ADJUSTABLE THERMOSTAT AND DISCONNECT
 2. PROVIDE RECESSED CEILING MOUNTED HEATER WITH THERMOSTAT AND DISCONNECT
 3. REFER TO PLANS FOR QUANTITIES PER EACH SCHOOL



WEST AREA
FLOOR PLAN - HVAC PLAN
1/8" = 1'-0"

MEADOW VIEW SCHOOL

USD 506 LABETTE CO SCHOOLS
HVAC UPGRADES

MEADOW VIEW GRADE SCHOOL
1377 21000 RD
PARSONS, KS 67357

ISSUED FOR:

DESCRIPTION	DATE
1	
2	
3	

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SHEET TITLE:
HVAC PLAN

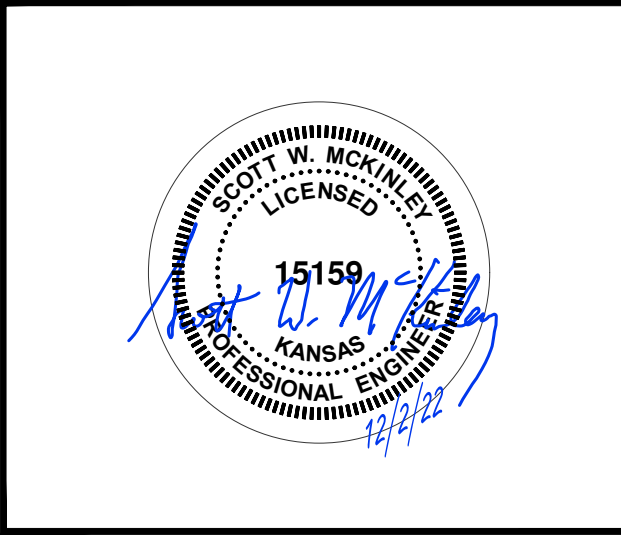
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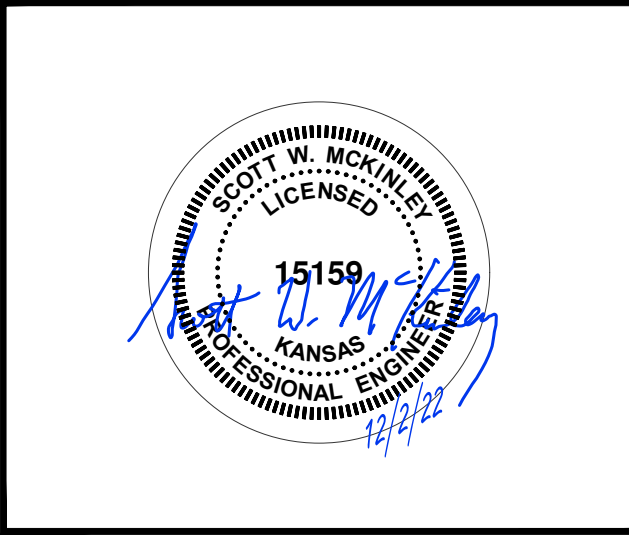
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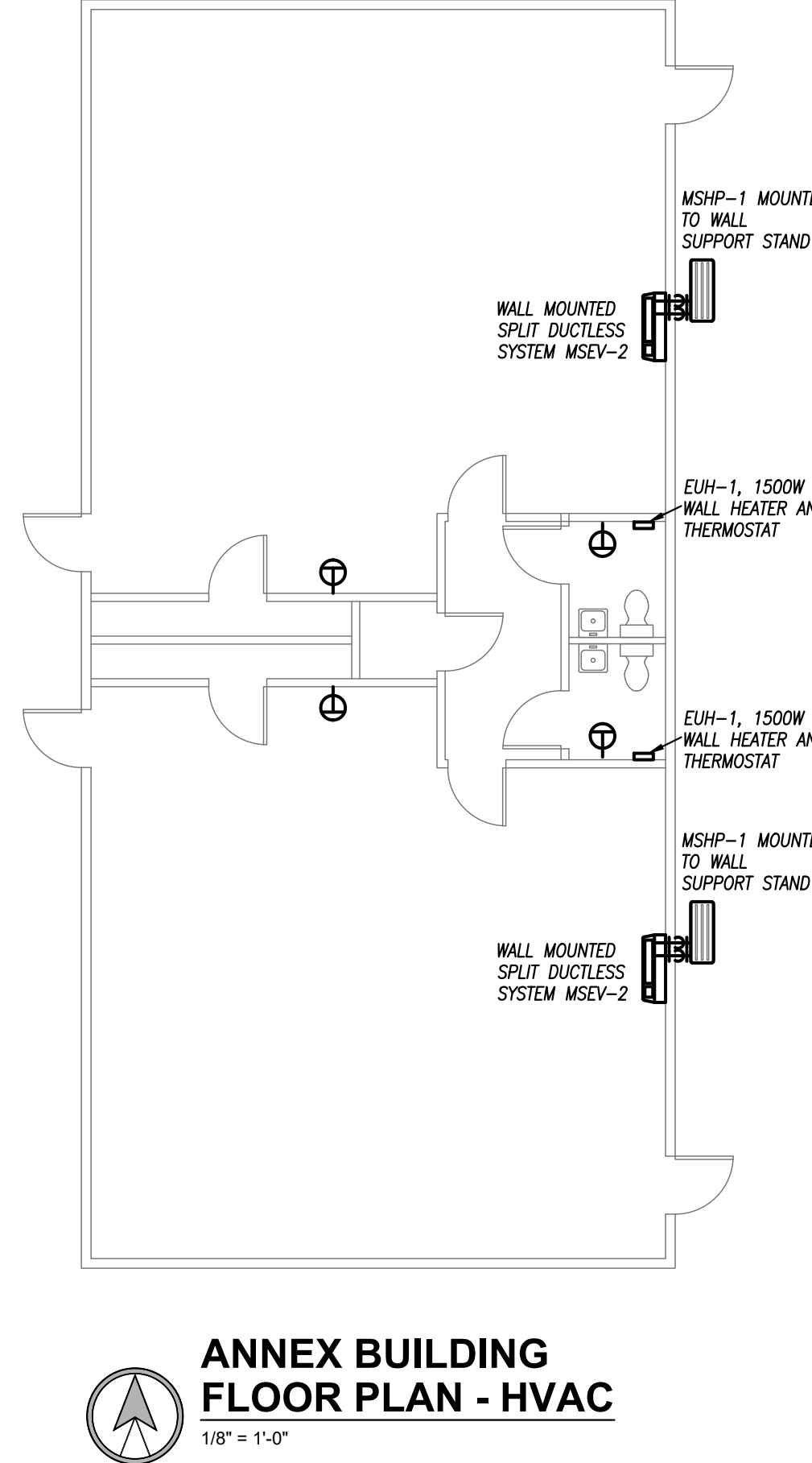
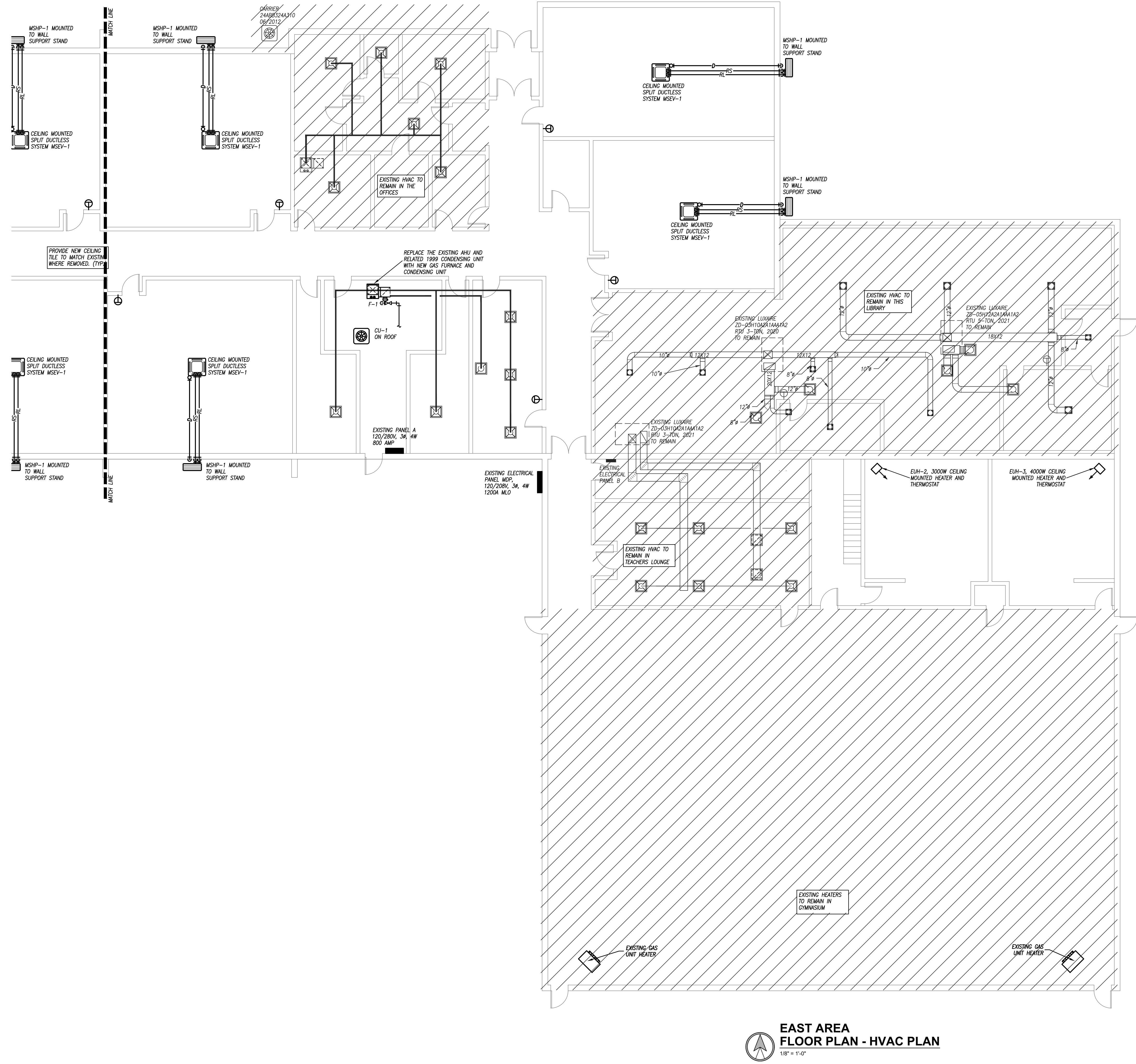
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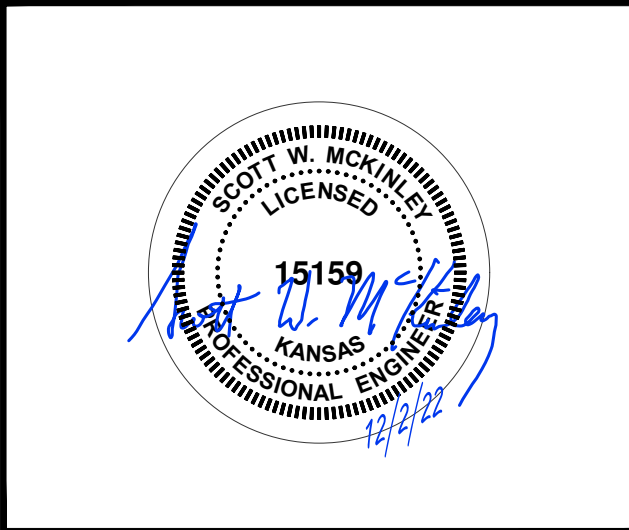
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ANNEX BUILDING
FLOOR PLAN - HVAC
1/8" = 1'-0"

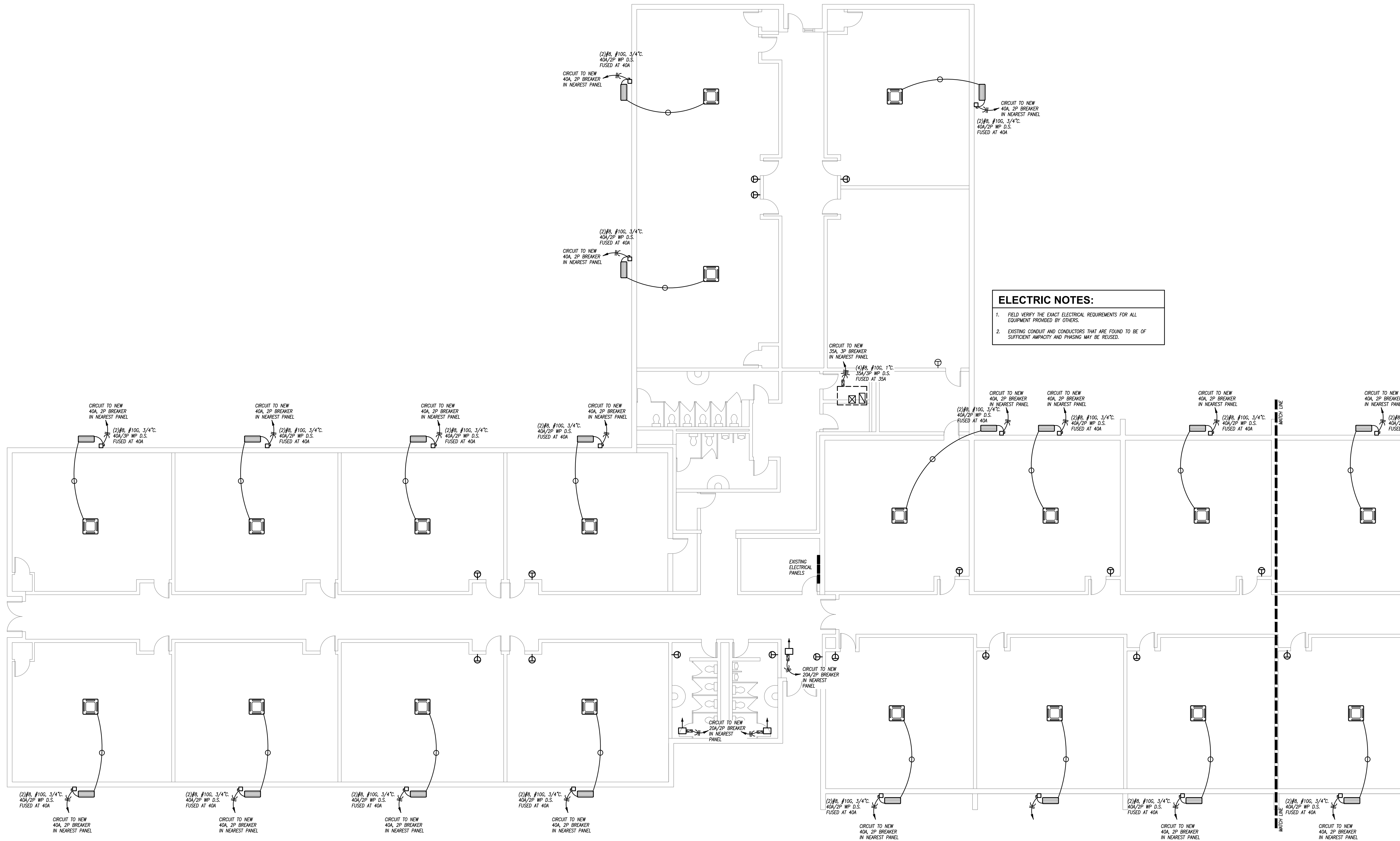


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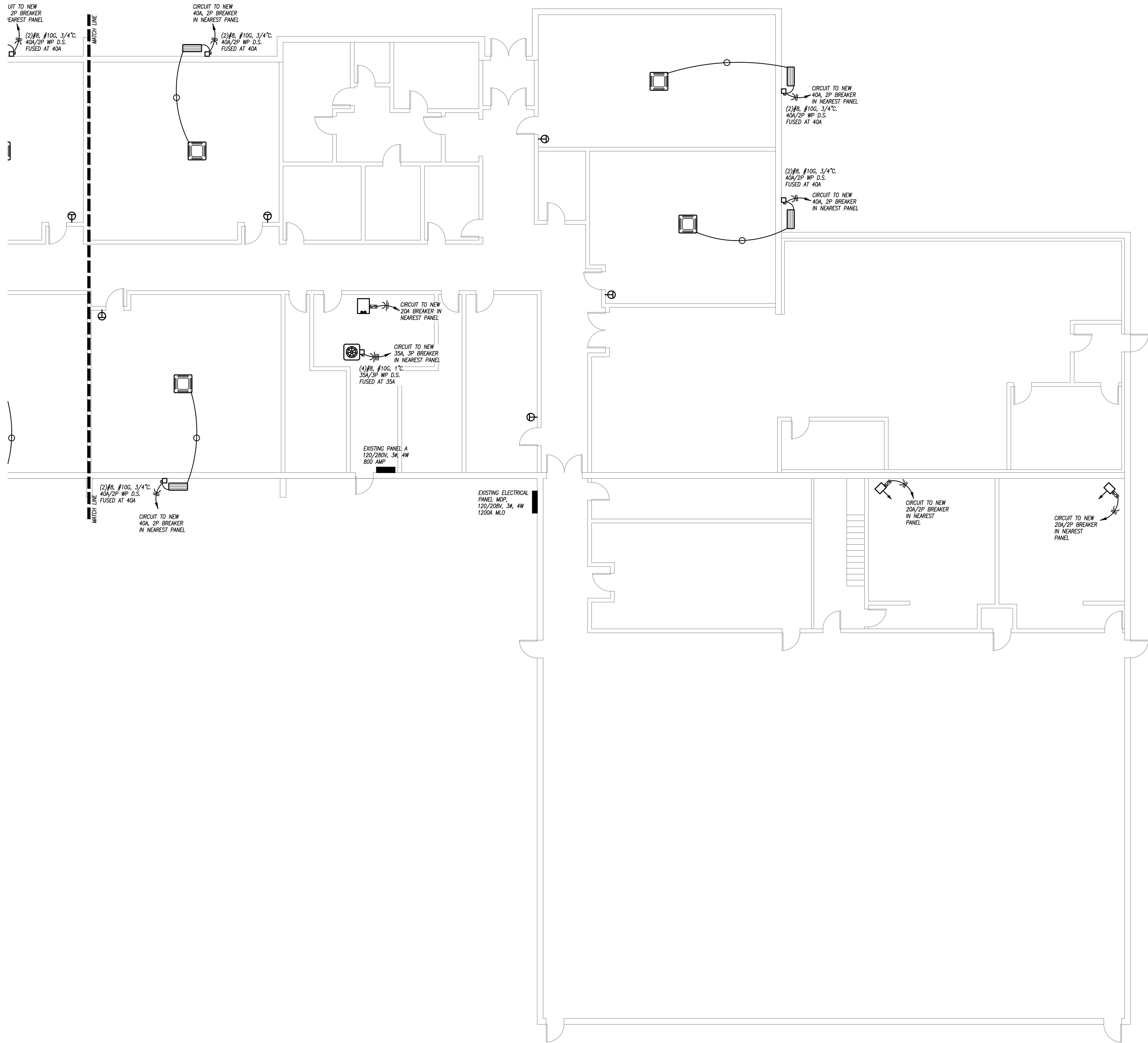
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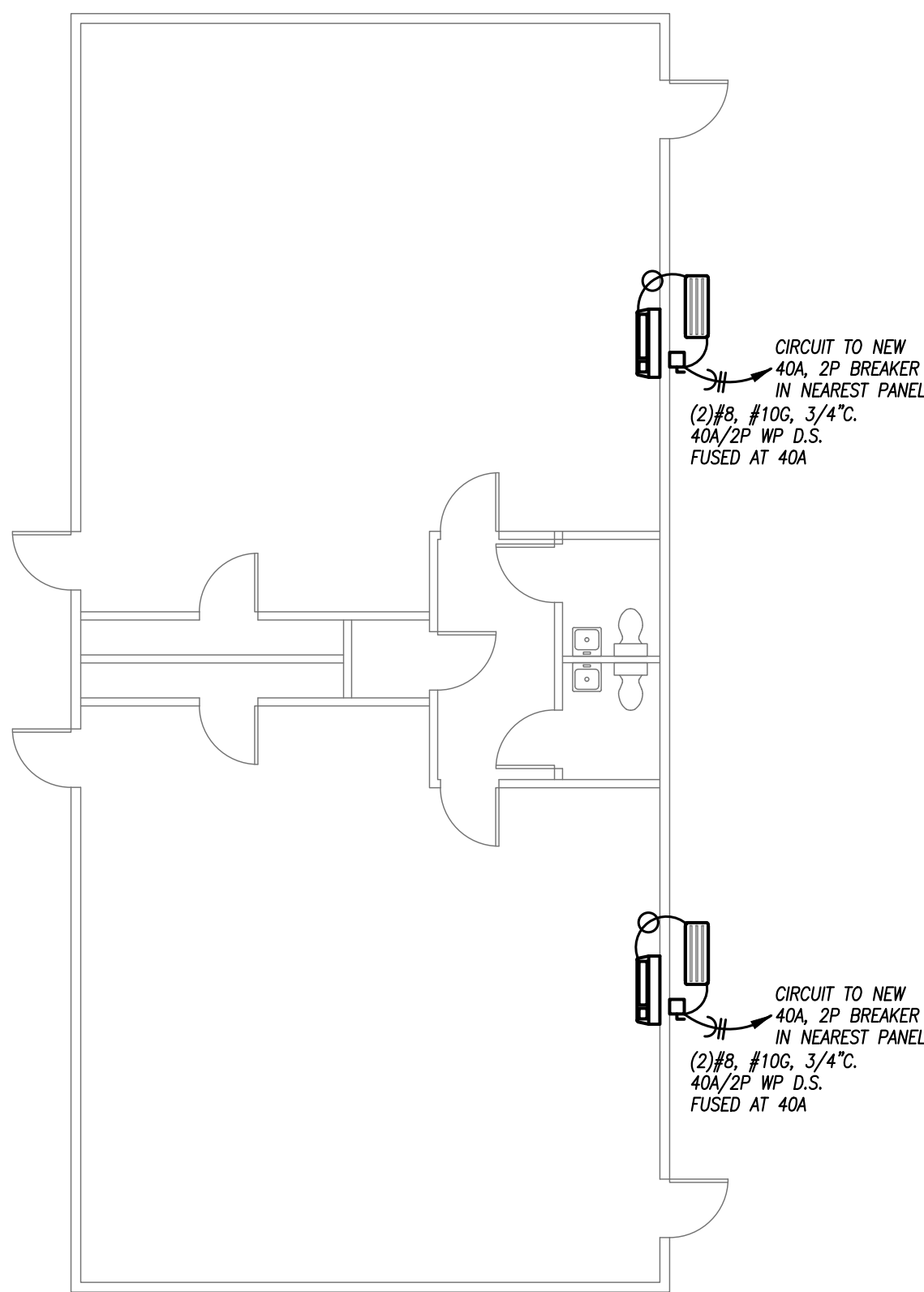
**WEST AREA
FLOOR PLAN - ELECTRICAL**
1/8" = 1'-0"

MEADOW VIEW SCHOOL

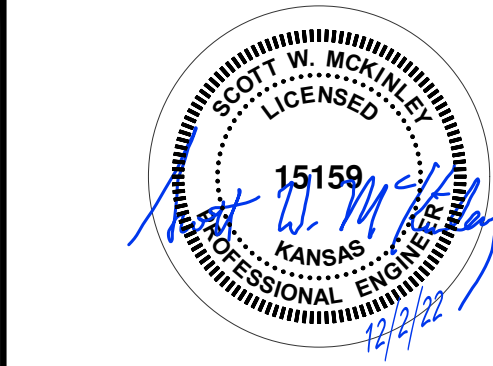
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 **EAST AREA FLOOR PLAN**
FLOOR PLAN - ELECTRICAL
1/8" = 1'-0"



MEADOW VIEW SCHOOL



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E2	