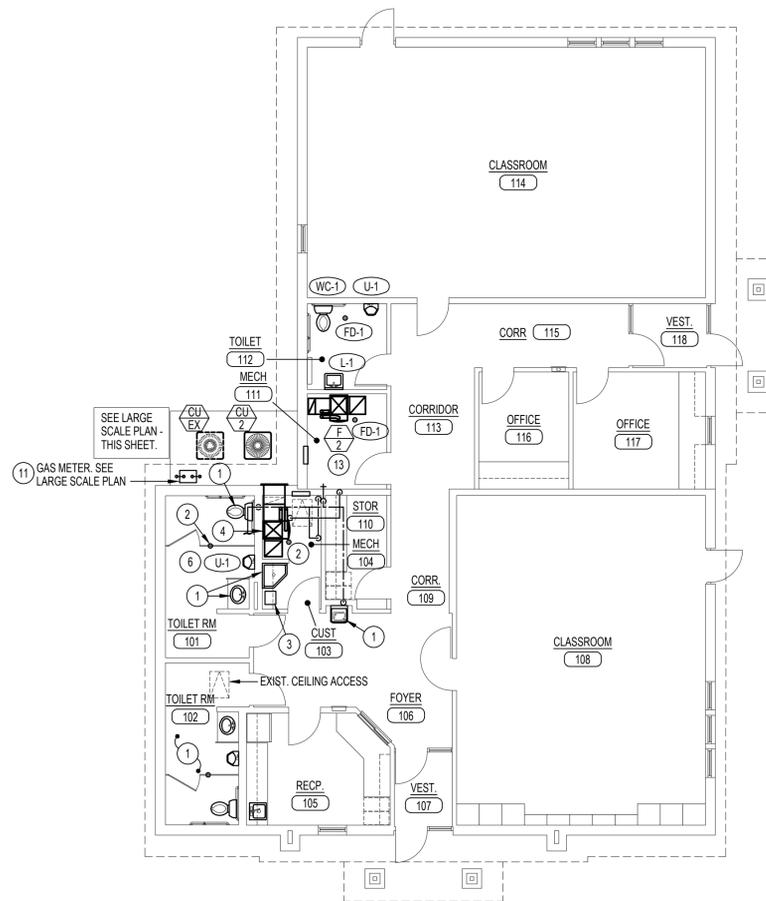


**PLUMBING DEMOLITION PLAN**

SCALE: 1/8" = 1'-0"



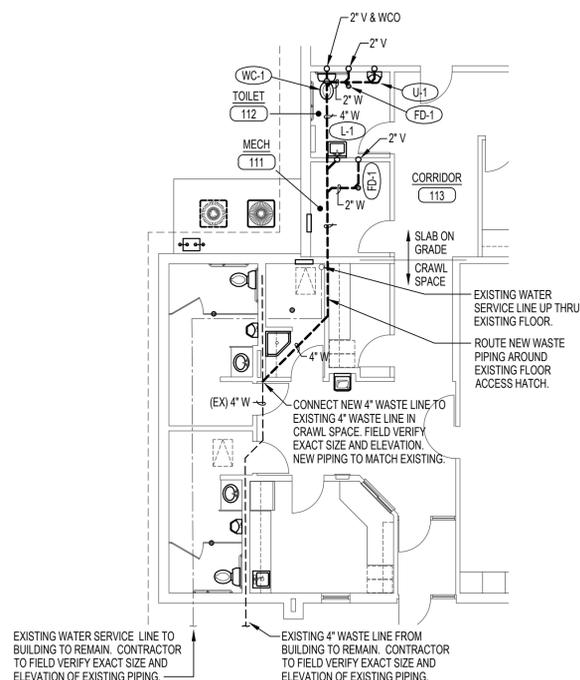
**PLUMBING FLOOR PLAN**

SCALE: 1/8" = 1'-0"



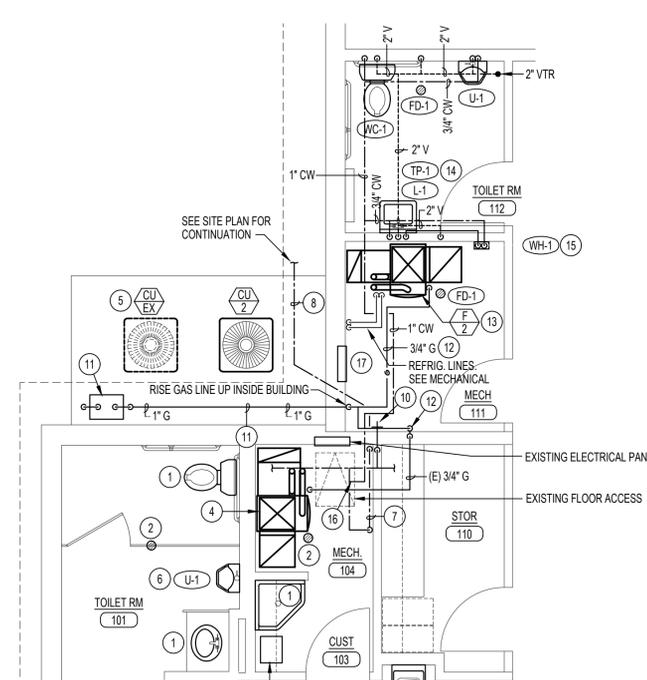
PLUMBING FIXTURE SCHEDULE							
SYM.	DESCRIPTION	PIPE SIZE			C.W.	H.W.	REMARKS
		TRAP	WASTE	VENT			
FD-1	FLOOR DRAIN	2"	2"	2"	-	-	WITH DEEP SEAL P-TRAP AND TRAP PRIMER CONNECTION
L-1	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	SELF SUPPORTING 20"x18" (ADA APPROVED). MOUNT AT HEIGHT SHOWN ON ARCH. DRAWINGS
TP-1	TRAP PRIMER	-	-	-	1/2"	-	SINGLE DRAIN TRAP PRIME IN RECESSED LOCKING METAL BOX. RUN 1/2" PEX PIPING TO FLOOR DRAIN
U-1	URINAL	INT.	2"	2"	1"	-	FLUSH VALVE, WALL MOUNTED
WC-1	WATER CLOSET	INT.	4"	2"	1/2"	-	FLUSH TANK, 18" RIM HEIGHT (ADA APPROVED)
WH-1	WATER HEATER	-	-	-	1/2"	1/2"	WALL MOUNTED POINT-OF-USE, 1-1/2 GALLON WATER HEATER WITH 1.5 GPM, 1440 WATT ELEMENT, (120/60/1 - 12A)

A SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND MODEL NUMBERS.



**UNDER FLOOR PIPING PLAN**

SCALE: 1/8" = 1'-0"



**LARGE SCALE MECHANICAL ROOMS**

SCALE: 1/4" = 1'-0"

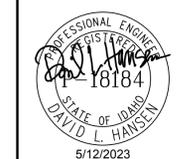


**PLAN NOTES:**

- EXISTING PLUMBING FIXTURE TO REMAIN. PROTECT DURING CONSTRUCTION AND MAINTAIN CONNECTION TO EXISTING WASTE, WATER, AND VENT PIPING.
- EXISTING FLOOR DRAIN TO REMAIN. COVER DRAIN TO KEEP CLEAN. CLEAN OUT EXISTING P-TRAP AFTER WORK HAS BEEN COMPLETED.
- EXISTING ELECTRIC WATER HEATER ABOVE SERVICE SINK TO REMAIN. PROTECT WATER HEATER AND PIPING DURING CONSTRUCTION AND MAINTAIN PIPING CONNECTIONS.
- EXISTING GAS FIRED FURNACE WITH MATCHING DX COOLING COIL, ALL ASSOCIATED DUCTWORK, VENTS, DAMPERS, REFRIGERATING PIPING, ETC. TO REMAIN UNLESS SPECIFICALLY NOTED OTHERWISE. PROTECT DURING CONSTRUCTION AND MAINTAIN OPERATING CONDITIONS. REFER TO MECHANICAL DRAWINGS.
- EXISTING CONDENSING UNIT TO BE RELOCATED FOR NEW CONSTRUCTION. REFER TO MECHANICAL DRAWINGS.
- DISCONNECT AND REMOVE EXISTING WATER CLOSET. CAP EXISTING 4" WASTE LINE BELOW FLOOR. ADJUST EXISTING COLD WATER AND VENT PIPING IN WALL AS REQUIRED FOR NEW URINAL FIXTURE. DROP 2" WASTE LINE DOWN IN WALL AND CONNECT TO EXISTING 4" WASTE LINE BELOW FLOOR. REFER TO ARCHITECTURAL DRAWINGS FOR CUTTING AND PATCHING OF EXISTING WALLS AND FLOOR.
- EXISTING WATER SERVICE UP THRU FLOOR OF MECHANICAL ROOM AND PRV STATION TO REMAIN. PROTECT DURING CONSTRUCTION.
- EXISTING WATER SERVICE TO BUILDING TO BE RELOCATED FOR NEW ADDITION. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING WATER MAIN. CONNECT NEW PIPING TO EXISTING AND EXTEND OUT BEYOND NEW FOUNDATION WALLS AS REQUIRED. RECONNECT TO EXISTING WATER SERVICE LINE FROM STREET.
- EXISTING GAS METER FOR BUILDING TO BE RELOCATED BY LOCAL GAS COMPANY AROUND NEW BUILDING ADDITION TO NEW MECHANICAL EQUIPMENT COMPOUND. EXISTING LOW PRESSURE GAS LINE TO EXISTING BUILDING TO REMAIN. REFER TO LARGE SCALE PLAN FOR NEW GAS PIPING TO BE CONNECTED TO EXISTING.
- EXISTING EXTERIOR HOSE BIBB TO REMAIN. PROTECT DURING CONSTRUCTION. UTILIZE AS INTERIOR HOSE BIBB INSIDE NEW MECHANICAL ROOM.
- NEW GAS METER LOCATION. (INSTALLED BY LOCAL GAS COMPANY) REPLACE EXISTING METER IF REQUIRED TO PROVIDE 200,000 BTU AT 0.5 PSI DELIVERY PRESSURE. COORDINATE WITH CONDENSING UNITS. RUN NEW 1" GAS LINE ALONG WALL (WITH REFRIGERANT LINES) AND EXTEND INTO NEW MECHANICAL ROOM.
- RISE 3/4" GAS LINE UP TO CEILING AND RUN TO NEW FURNACE SYSTEM. EXTEND SEPARATE 3/4" GAS LINE ALONG FLOOR OF MECHANICAL ROOM AND CONNECT TO EXISTING 3/4" GAS LINE IN FORMER EXTERIOR WALL. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING GAS PIPING TO EXISTING FURNACE SYSTEM.
- NEW GAS FIRED FURNACE BY MECHANICAL CONTRACTOR. CONNECT 3/4" GAS LINE TO FURNACE WITH SHUT-OFF VALVE AND FLEXIBLE HOSE. REFER TO DETAIL L/P201. RUN CONDENSATE DRAIN LINE FROM DX COIL AND FROM FURNACE TO NEAREST FLOOR DRAIN. SEE DETAIL DM202.
- INSTALL TRAP PRIMER BELOW LAVATORY. CONNECT TO 1/2" COLD WATER LINE AND RUN 1/2" COLD WATER LINE (PEX PIPING) BELOW FLOOR TO CONNECT TO FLOOR DRAIN. REFER TO DETAIL B/P201 FOR TYPICAL INSTALLATION.
- MOUNT TANKLESS WATER HEATER BELOW LAVATORY. CONNECT TO COLD WATER LINE. RUN 1/2" HOT WATER LINE UP TO LAVATORY FAUCET. REFER TO DETAIL J/P201 FOR TYPICAL INSTALLATION.
- CONNECT NEW 1" COLD WATER LINE TO EXISTING 1-1/4" COLD WATER LINE ABOVE CEILING. RUN NEW 1" LINE TO NEW TOILET ROOM AS SHOWN. ALL WATER PIPING TO BE WITHIN BUILDING ENVELOPE TO AVOID FREEZING.
- MAINTAIN CLEARANCE AROUND AND ABOVE ELECTRICAL PANEL. (REFER TO ELECTRICAL DRAWINGS.)

**GENERAL NOTES:**

- EXISTING EQUIPMENT, PIPING, DUCTWORK AND GRILLES HAVE BEEN DERIVED FROM FIELD VISITS AND PHOTOS. CONTRACTOR TO FIELD VERIFY ALL SIZES AND LOCATIONS OF ALL EXISTING EQUIPMENT, PIPING, DUCTWORK AND GRILLES.
- CONTRACTOR SHALL NOT SHUT-OFF OR PUT-OUT OF SERVICE ANY SYSTEMS OR SERVICES WITHOUT FIRST COORDINATING WITH THE OWNER AND/OR OCCUPANTS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND UNDERSTAND THE EXTENT OF THE REMODEL WORK REQUIRED PRIOR TO BID.
- CONTRACTOR SHALL DETERMINE AND COORDINATE THE EXACT EXTENT OF DEMOLITION TO FACILITATE ALL WORK INDICATED BY THE CONTRACT DOCUMENTS.



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Architect Project No. 22306  
 Date: May 12, 2023

Stamp:

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 US ID West S&I Area  
 3680 N. 3450 E  
 Kimberly, Idaho 83341

Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

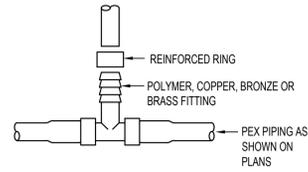
Project Number:  
**550203922040201**  
 Plan Series:  
**SEM07-01-7 (Addition)**  
 Property Number:  
**550-2039**

Sheet Title:  
**PLUMBING FLOOR PLANS**

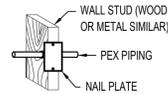
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**P101**

THIS TYPE (COLD EXPANSION) OF FITTING REQUIRES THAT THE PEX PIPING, WITH REINFORCING PEX RING PLACED OVER THE END OF THE END OF THE PIPE, IS EXPANDED BEFORE THE FITTING IS INSERTED INTO THE PIPE END. THE EXPANDED PIPE END IS ALLOWED TO RETRACT ONTO THE FITTING TO FORM THE SEAL. THE MEMORY OF THE PIPE ALLOWS IT TO TIGHTEN OVER THE FITTING. AN EXPANDER TOOL IS REQUIRED TO EXPAND THE PIPE AND THE PEX RING TOGETHER.

ALL JOINTS (TEES, ELBOWS, COUPLINGS, ETC.) ARE JOINTED SIMILARLY.



**A** PEX PIPE FITTING DETAILS  
NO SCALE



WALL INSTALLATION

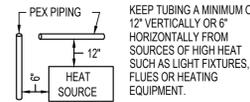
PIPE SUPPORTS: PLASTIC HANGERS AND STRAPS ARE RECOMMENDED, BUT METAL SUPPORTS WHICH ARE DESIGNED FOR USE WITH PLASTIC TUBING CAN BE USED.

DO NOT USE SUPPORTS THAT PINCH OR CUT THE TUBING. SUPPORT SHOULD ALLOW FREE TUBING MOVEMENT.

INSPECT ALL SUPPORTS PRIOR TO INSTALLATION TO ENSURE THAT SHARP EDGES DO NOT EXIST THAT CAN DAMAGE THE TUBING.

DO NOT USE IN ANY APPLICATION WHERE TUBING WILL BE EXPOSED TO DIRECT SUNLIGHT.

**D** PEX PIPE INSTALLATION DETAILS  
NO SCALE



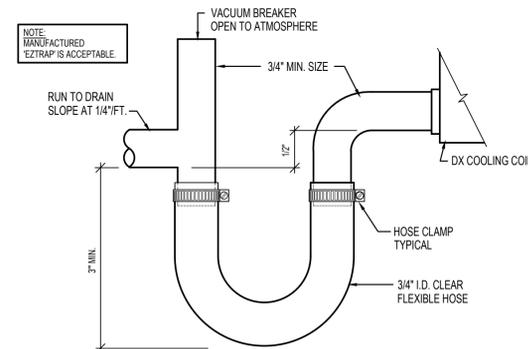
MIN. CLEARANCES

TUBING SIZE	MIN. RADIUS BENDING
3/8"	4"
1/2"	5"
3/4"	7"
1"	9"

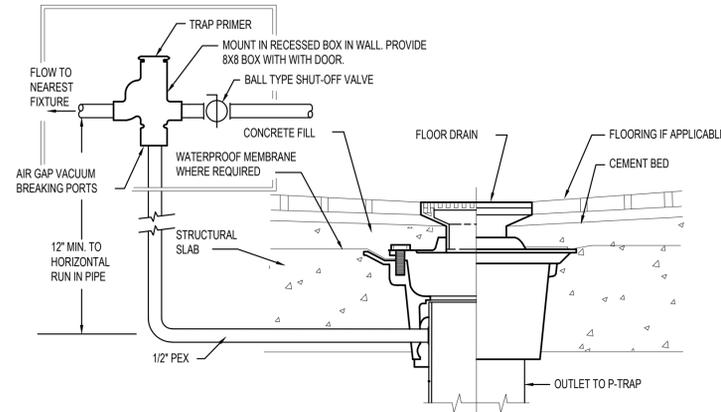


TUBING AND FITTINGS SHALL BE STORED UNDERCOVER FOR CLEANLINESS AND TO AVOID EXPOSURE TO SUNLIGHT. CONSULT MANUFACTURER FOR RECOMMENDED LIMITS TO OUTSIDE STORAGE.

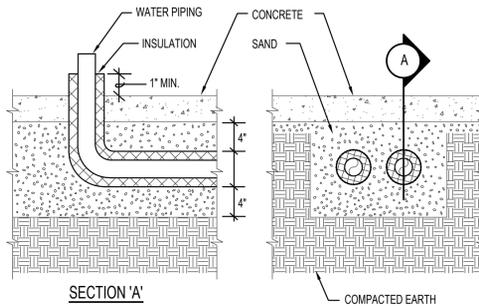
**E** PEX PIPE HANDLING DETAILS  
NO SCALE



**H** DX COIL CONDENSATE DRAIN DETAIL  
NO SCALE



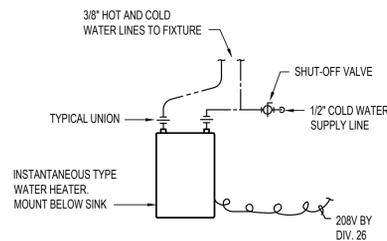
**B** TRAP PRIMER DETAIL  
NO SCALE



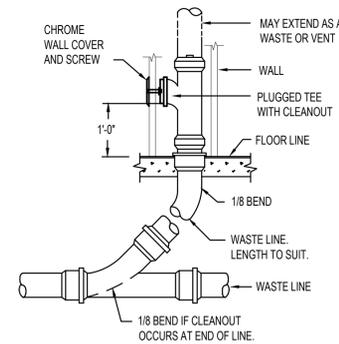
NOTES:

- ALL WATER PIPING INSTALLED UNDERFLOOR SHALL BE TYPE "K" COPPER
- WATER PIPE INSULATION ON UNDERFLOOR PIPING SHALL BE ARMAFLEX 3/4" THICK RUBBER PIPE INSULATION. TAPE INSULATION AT ALL SEAMS.
- MINIMUM PIPE SIZE UNDERFLOOR SHALL BE 3/4"
- SAND FILL AROUND PIPING SHALL BE A MINIMUM OF 4" THICK. MATERIAL SHALL BE HAND TAMPED, RODDED OR LIGHTLY COMPACTED DURING INSTALLATION. CARE SHOULD BE TAKEN NOT TO DEFORM OR OTHERWISE DAMAGE PIPING OR INSULATION.

**F** UNDER SLAB PIPE INSTALLATION DETAIL  
NO SCALE

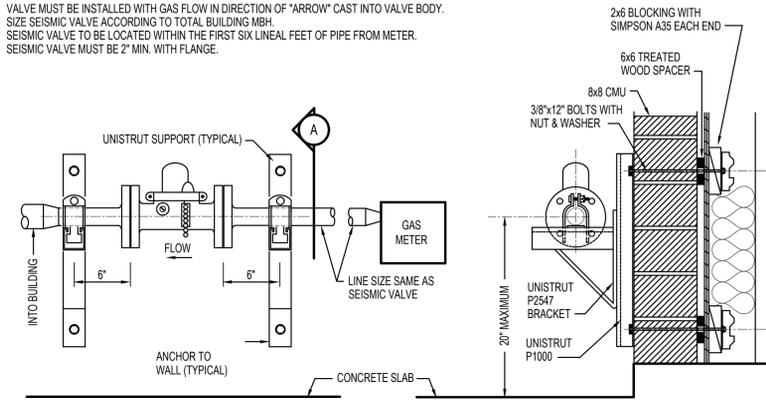


**J** TANKLESS WATER HEATER PIPING DETAIL  
NO SCALE



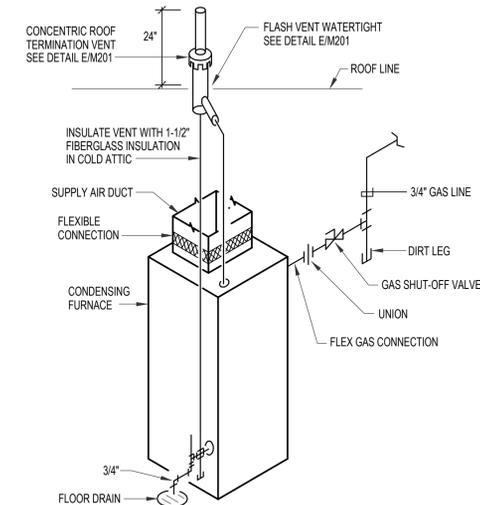
**K** WALL CLEANOUT DETAIL  
NO SCALE

- NOTE:
- VALVE MUST BE INSTALLED WITH THE CHAIN AND RESET BUTTON FACING OUT AND ACCESSIBLE.
  - THE CHAIN IS A PLUMB LINE. MAKE SURE VALVE IS MOUNTED ABSOLUTELY LEVEL AND NO PART OF THE CHAIN IS TOUCHING THE RING.
  - VALVE MUST BE INSTALLED WITH GAS FLOW IN DIRECTION OF "ARROW" CAST INTO VALVE BODY.
  - SIZE SEISMIC VALVE ACCORDING TO TOTAL BUILDING MBH.
  - SEISMIC VALVE TO BE LOCATED WITHIN THE FIRST SIX LINEAL FEET OF PIPE FROM METER.
  - SEISMIC VALVE MUST BE 2" MIN. WITH FLANGE.

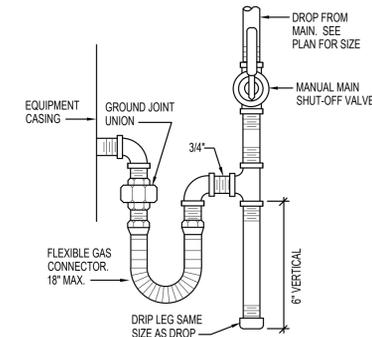


**C** SEISMIC VALVE DETAIL  
NO SCALE

SECTION  
NO SCALE



**G** FURNACE SYSTEM PIPING DIAGRAM  
NO SCALE



**L** GAS LINE CONNECTION DETAIL  
NO SCALE

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Date: May 12, 2023

Stamp:

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Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

Project Number: 550203922040201  
Plan Series: SEM07-01-7 (Addition)  
Property Number: 550-2039

Sheet Title:  
**PLUMBING DETAILS AND DIAGRAMS**

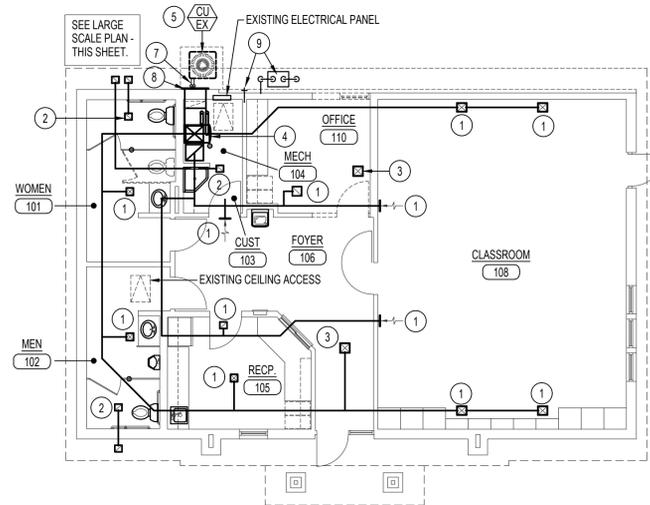
Sheet:  
**P201**

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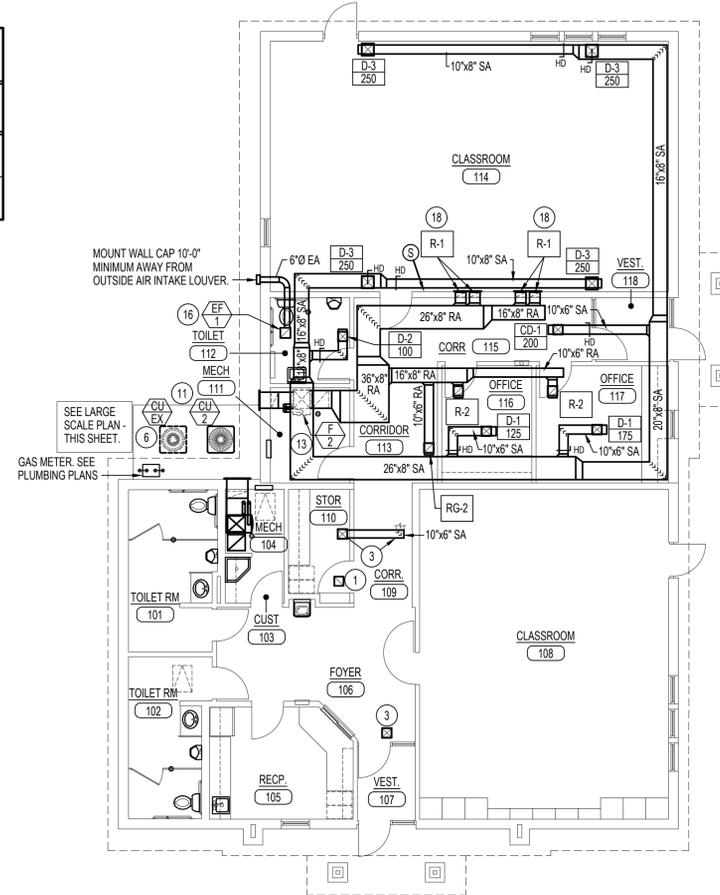
EXHAUST FAN SCHEDULE					
SYMBOL	AREA SERVED	MIN. S.C.F.M. (A)	STATIC PRESSURE IN. W.G.	WATTS	REMARKS
EF-1	TOILET ROOM 112	140	0.5	77	CEILING MOUNTED WITH WALL CAP

- (A) SET BALANCE DAMPERS TO CFM LISTED.  
 (B) CONTROL BY DIVISION 16.  
 (C) VOLTAGE IS 120/60/1.



### MECHANICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



### MECHANICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"



### PLAN NOTES:

- EXISTING CEILING GRILLE (SUPPLY OR RETURN) TO REMAIN. PROTECT DURING CONSTRUCTION AND MAINTAIN CONNECTION TO EXISTING DUCTWORK.
- EXISTING CEILING MOUNTED EXHAUST FAN, ALL ASSOCIATED DUCTWORK, AND OUTLET GRILLES OR ROOF CAPS ARE TO REMAIN. PROTECT EQUIPMENT AND DUCTWORK DURING CONSTRUCTION.
- EXISTING CEILING DIFFUSER TO BE RELOCATED AS REQUIRED FOR REMODEL. REFER TO MECHANICAL FLOOR PLAN FOR NEW WALL LOCATIONS AND FOR NEW DIFFUSER LOCATION. EXTEND OR MODIFY EXISTING BRANCH DUCT ABOVE CEILING AS REQUIRED FOR NEW LOCATION OF EXISTING DIFFUSER.
- EXISTING GAS FIRED FURNACE WITH MATCHING DX COOLING COIL TO REMAIN. ALL ASSOCIATED DUCTWORK, VENTS, DAMPERS, REFRIGERATING PIPING, ETC. TO REMAIN UNLESS SPECIFICALLY NOTED OTHERWISE. PROTECT DURING CONSTRUCTION AND MAINTAIN OPERATING CONDITIONS.
- EXISTING CONDENSING UNIT TO BE RELOCATED FOR NEW CONSTRUCTION. SALVAGE ALL R-410a REFRIGERANT FROM SYSTEM PER MANUFACTURE AND EPA REQUIREMENTS. STORE REFRIGERANT FOR REUSE.
- REINSTALL EXISTING CONDENSING UNIT ON NEW CONCRETE PAD WITH 1" THICK NEOPRENE PADS UNDER EACH CORNER. RECONNECT EXISTING UNIT TO NEW REFRIGERANT PIPING AND FULLY RECHARGE SYSTEM WITH SALVAGED R-410a.
- DISCONNECT EXISTING REFRIGERANT PIPING ON EXTERIOR OF BUILDING. CAPTURE ALL EXISTING R-410a REFRIGERANT FOR REUSE WITH EXISTING SYSTEM PER MANUFACTURER AND EPA REQUIREMENTS. REMOVE ALL PIPING SUPPORT, COVER, ETC. TO ALLOW FOR NEW PIPING, SUPPORTS AND COVER.
- EXISTING OUTSIDE AIR LOUVER IN WALL TO REMAIN. PROTECT DURING CONSTRUCTION AND MAINTAIN CONNECTION TO EXISTING FURNACE SYSTEM.
- EXISTING WATER SERVICE AND GAS METER FOR BUILDING. REFER TO PLUMBING DRAWINGS FOR WORK REQUIRED.
- FIELD VERIFY LOCATIONS AND SIZES OF EXISTING PIPING. MATCH LINE SIZES AND EXTEND EXISTING PIPING AS REQUIRED FOR RELOCATED (EXISTING) UNIT AND RECONNECT. RECHARGE SYSTEM WITH SALVAGED R-410a REFRIGERANT AND ENSURE PROPER OPERATION. PROVIDE NEW REFRIGERANT PIPE SUPPORTS AND COVER AS REQUIRED FOR NEW PIPE ROUTES.
- INSTALL NEW CONDENSING UNIT AS SCHEDULED. MOUNT UNIT ON NEW CONCRETE PAD WITH 1" THICK NEOPRENE PADS UNDER EACH CORNER. DO NOT LOCATE UNIT DIRECTLY BELOW DRIP EDGE OF ROOF.
- RUN R-410a REFRIGERANT LINES ACROSS CONCRETE PAD AND THRU EXTERIOR WALL AT 3" ABOVE FINISHED FLOOR. RISE PIPING UP INSIDE MECHANICAL ROOM AND CONNECT TO NEW DX COIL. COORDINATE PIPING WITH NEW DUCTWORK AND EQUIPMENT LOCATIONS. PROVIDE SHEET METAL COVER OVER EXPOSED PIPING IN EXTERNAL EQUIPMENT COMPOUND.
- INSTALL NEW GAS FIRED FURNACE AS SCHEDULED. COMPLETE WITH MATCHING DX COIL. CONNECT FURNACE AND COIL TO REFRIGERANT LINES AND GAS LINES. RISE SUPPLY AND RETURN DUCTS UP AND RUN ABOVE CEILINGS AS SHOWN. REFER TO TYPICAL FURNACE DETAIL.
- RISE (2) 3" Ø FURNACE VENTS UP THRU ROOF WITH CONCENTRIC TYPE TERMINATION. COORDINATE VENT LOCATIONS WITH EQUIPMENT, DUCTWORK AND BUILDING STRUCTURE. REFER TO CONCENTRIC VENT DETAIL FOR TYPICAL INSTALLATION.
- CONNECT 12" x 8" OUTSIDE AIR DUCT TO LOUVER IN WALL. DROP 12" x 8" DUCT DOWN TO FLOOR AND CONNECT TO NEW FURNACE SYSTEM. PROVIDE MOTORIZED DAMPER, DUCT ACCESS DOOR, AND MANUAL BALANCING DAMPER IN 12" x 8" DUCT. INTERLOCK MOTORIZED DAMPER WITH CORRESPONDING FURNACE SYSTEM. REFER TO OUTSIDE AIR DAMPER DETAIL FOR TYPICAL INSTALLATION.
- INSTALL CEILING MOUNTED EXHAUST FAN AS SCHEDULED. RUN EXH DUCT TO WALL CAP AS SHOWN. WALL CAP TO BE MINIMUM OF 12" Ø AWAY FROM INTAKE LOUVER OF NEW FURNACE SYSTEM.
- RUN DUCTWORK IN CEILING SOFFIT SPACE. COORDINATE DUCT WITH BUILDING STRUCTURE. REFER TO ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLAN.
- DROP 12"x5-1/2" UN-LINED RETURN AIR DUCT DOWN IN WALL CAVITY. CONNECT CORRESPONDING RETURN AIR GRILLE TO DUCT. RETURN GRILLE TO BE MOUNTED AT 6" ABOVE FLOOR. REFER TO DETAIL KM201 FOR TYPICAL INSTALLATION.

### GENERAL NOTES:

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Architect Project No. 22306  
 Date: May 12, 2023

Stamp:  
 Kimberly Idaho Sr.  
 Seminary - Classroom Addition  
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 3680 N. 3450 E.  
 Kimberly, Idaho 83341

Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

Project Number:  
**550203922040201**  
 Plan Series:  
**SEM07-01-7 (Addition)**  
 Property Number:  
**550-2039**

Sheet Title:  
**MECHANICAL FLOOR PLANS**

Sheet:  
**M101**

GRILLE AND REGISTER SCHEDULE					
SYMBOL	TYPE	SERVICE	CFM RANGE	NOMINAL SIZE	REMARKS (D) (E)
EX CFM	EXIST. REGISTER OR DIFFUSER	---	---	EXIST.	REMAINS UNLESS NOTED OTHERWISE
D-1 CFM	CEILING	SA	50-200	9 x 9	4-WAY THROW (F)
D-2 CFM	CEILING	SA	50-200	9 x 9	3-WAY THROW (F)
D-3 CFM	CEILING	SA	100-300	12 x 12	3-WAY THROW (F)
R-1	LOW SIDEWALL RETURN AIR GRILLE	RA	250	12 x 8	WITH 12"x5-1/2" DUCT IN WALL (G) (H) (K)
R-2	CEILING	RA	50-200	10 x 10	(F)
OL-1	OUTSIDE AIR WALL LOUVER	OA	200	12 x 8	(J) (K)

- (D) MAXIMUM NC = 25 AT MAXIMUM CFM NOTED.  
 (E) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.  
 (F) FINISH SHALL BE OFF-WHITE ENAMEL.  
 (G) RETURN GRILLE TO BE MOUNTED 6" FROM FLOOR TO BOTTOM EDGE OF GRILLE.  
 (H) BAKED ENAMEL FINISHED TO MATCH WALL TRIM AS DIRECTED BY ARCHITECT.  
 (J) PROVIDE BIRD SCREEN  
 (K) BLADE ORIENTATION SHALL BE HORIZONTAL

FURNACE SCHEDULE											
SYMBOL	TYPE	MINIMUM EFFICIENCY	MIN. REQ'D OUTPUT BTU/HR (L)	MIN. REQ'D INPUT BTU/HR (L)	MINIMUM S.C.F.M.	EXT. S.P. IN. W.G.	MOTOR				
							MIN. H.P.	Ø	HERTZ	VOLTS	SPEED
F-2	UPFLOW	90%	88,000	84,000	1600	0.60	3/4	1	60	120	MED-HIGH

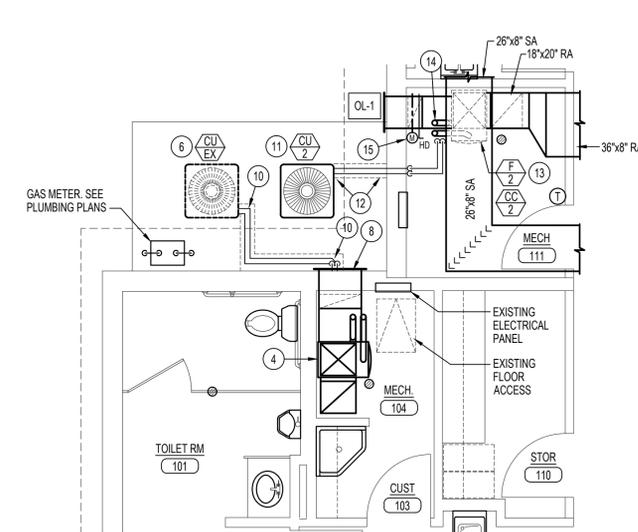
- (L) AT SITE ELEVATION.  
 (M) FURNACE MARKS CORRESPOND WITH CONDENSING UNIT AND COOLING COIL MARKS.  
 (N) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.

COOLING COIL SCHEDULE										
MARK	MIN. REQ'D CAP.		CONDENT. EVAP.		C.F.M.	MAX. FR. DR. IN. W.G.	PIPE SIZES			REMARKS
	TOT. MBH	SEN. MBH	DB °F	WB °F			LIQUID	SUCTION	C. D.	
CC-2	48.0	32.7	80	67	1600	0.28	1/2"	1 1/8"	3/4"	MIN. 4.0 TON COIL

- (O) COMPLETE WITH FACTORY COIL BOX AND COIL.  
 (P) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.

AIR COOLED CONDENSING UNIT SCHEDULE										
SYMBOL	AREA SERVED	MIN. SIZE (TONS) (R)	MCA	COMPRESSOR MOTOR				CONDENSER		
				NO.	Ø	VOLTS	HERTZ	Ø	VOLTS	HERTZ
CU-2	CLASSROOM ADDITION	4.0	25.9	1	1	240	60	1	240	60

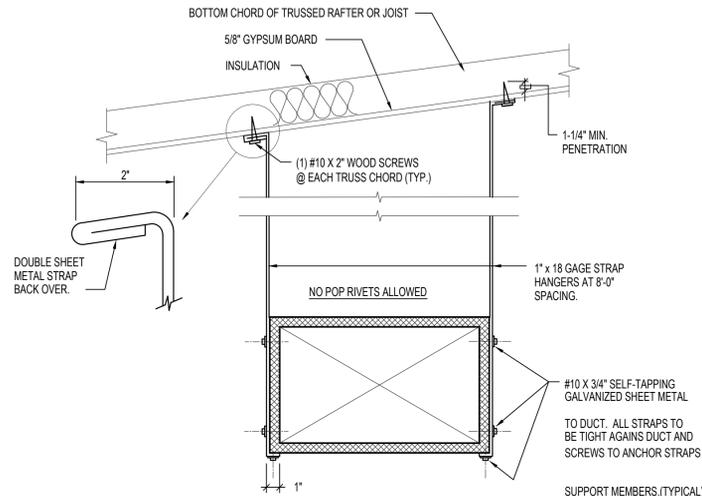
- (Q) REFRIGERANT R-410a  
 (R) AT DESIGN CONDITIONS AND 95°F EAT. PROVIDE LOW AMBIENT 'HARD-START' KIT.  
 (S) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.



### LARGE SCALE MECHANICAL ROOMS

SCALE: 1/4" = 1'-0"



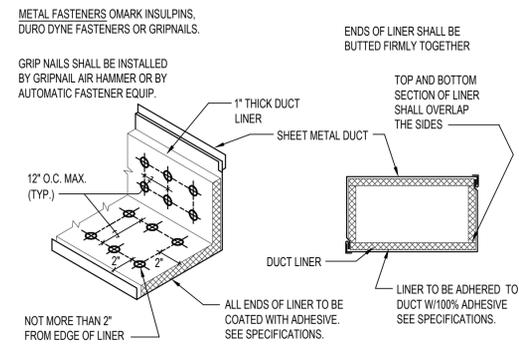


**A** DUCT STRAP HANGER DETAIL  
NO SCALE

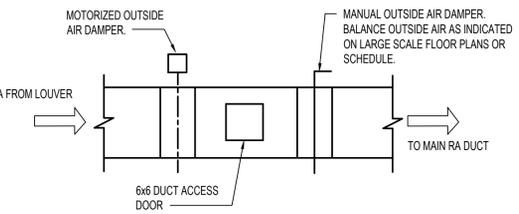
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			AT JOINTS				
			MIN. H. IN.	DRIVE SLIP	HEMMED S SLIP	ALTERNATE BAR SLIP	REINFORCED BAR SLIP
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13-18	24	NONE REQUIRED	1	24	24	24	24
19-30	24	1"x1"x18" @ 60 IN	1	-	24	24	24
31-42	22	1"x1"x18" @ 60 IN	1	-	-	22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

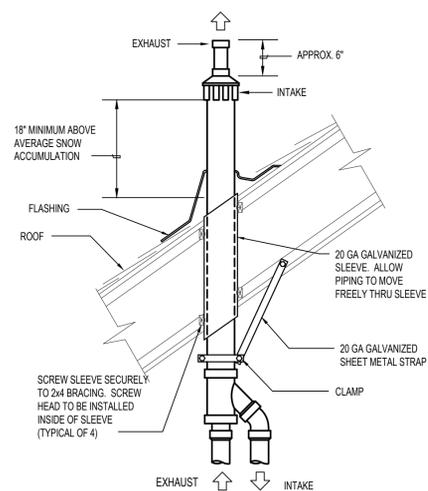
**B** DUCT CONSTRUCTION DETAIL  
NO SCALE



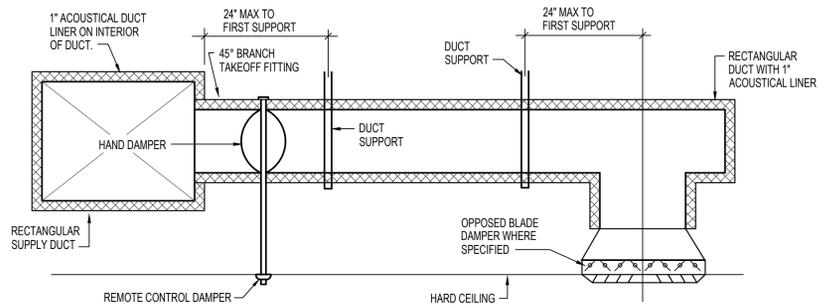
**C** DUCT LINER DETAIL  
NO SCALE



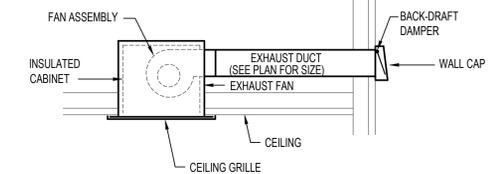
**D** TYPICAL OUTSIDE AIR DUCT DETAIL  
NO SCALE



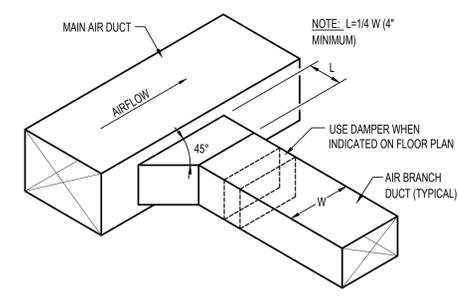
**E** CONCENTRIC VENT TERMINATION DETAIL  
NO SCALE



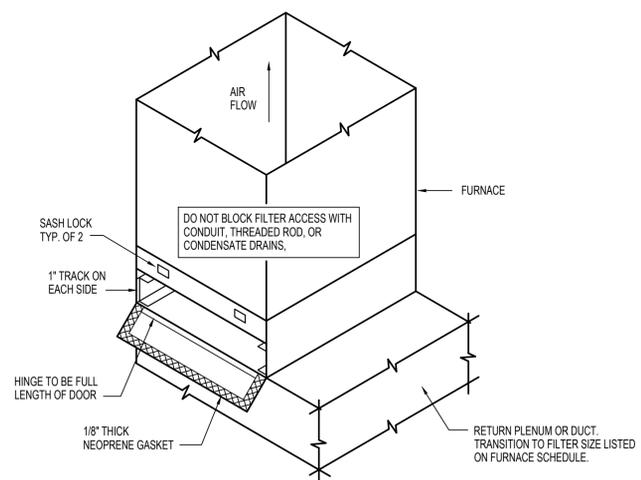
**F** CEILING DIFFUSER DETAIL WITH RIGID DUCTWORK  
NO SCALE



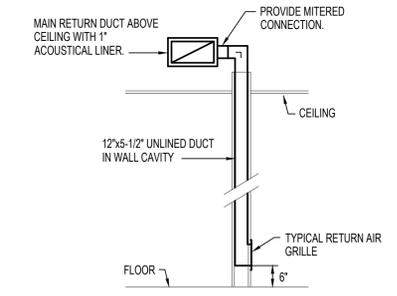
**G** CEILING MOUNTED EXHAUST FAN DETAIL  
NO SCALE



**H** RECTANGULAR DUCT CONNECTION DETAIL  
NO SCALE



**J** EXTERNAL FILTER SECTION DETAIL  
NO SCALE



**K** LOW SIDEWALL RETURN AIR GRILLE DETAIL  
NO SCALE

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Architect Project No. 22306  
Date: May 12, 2023

Stamp:

Kimberly Idaho Sr.  
Seminary - Classroom Addition  
US ID West S&I Area  
3680 N. 3450 E  
Kimberly, Idaho 83341

Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

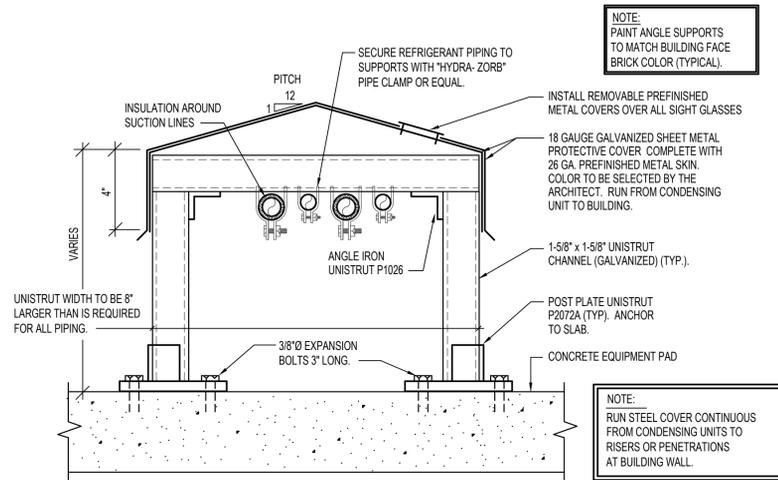
Project Number:  
550203922040201  
Plan Series:  
SEM07-01-7 (Addition)  
Property Number:  
550-2039

Sheet Title:  
**MECHANICAL DETAILS AND DIAGRAMS**

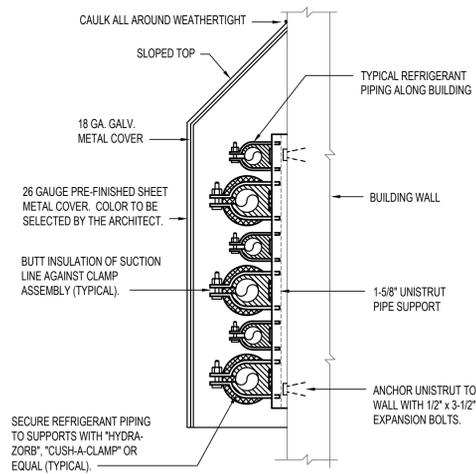
Sheet:  
**M201**

**Engineered Systems Associates**  
1355 EAST CENTER  
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PHONE: (208) 233-0501  
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EMAIL: eso@engsystems.com  
ES: A JOB NUMBER: 2.3026

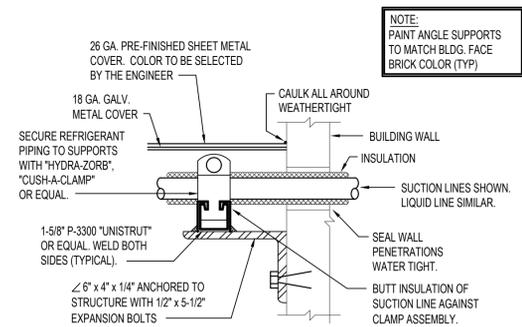
PROFESSIONAL ENGINEER  
REG. NO. 18184  
STATE OF IDAHO  
DAVID L. HANSEN  
5/12/2023



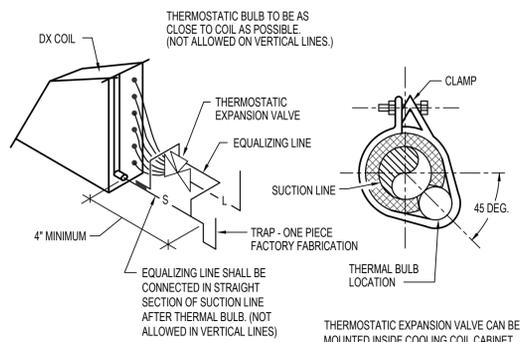
**A** REFRIGERANT PIPE SUPPORT DETAIL  
NO SCALE



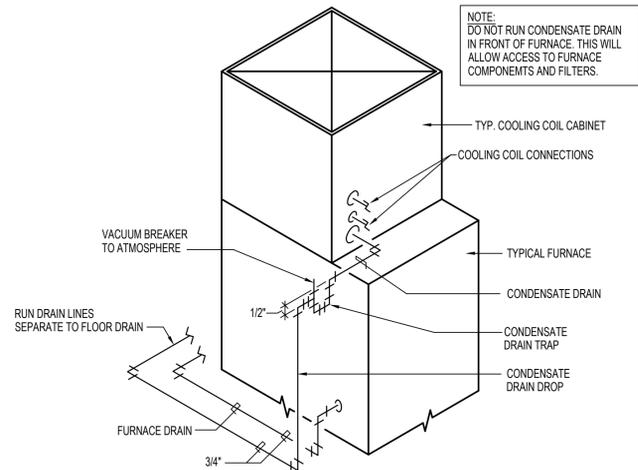
**C** PIPE SUPPORT ALONG BUILDING  
NO SCALE



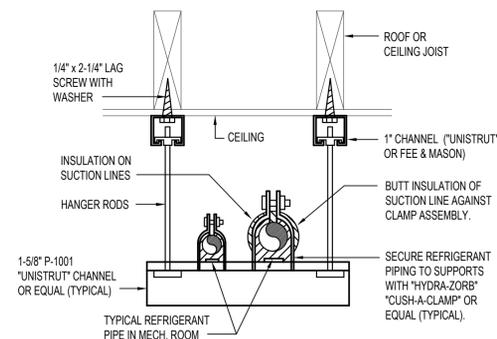
**E** REFRIG. PIPING SUPPORT AT WALL  
NO SCALE



**B** REFRIGERANT COIL CONNECTION DETAIL  
NO SCALE

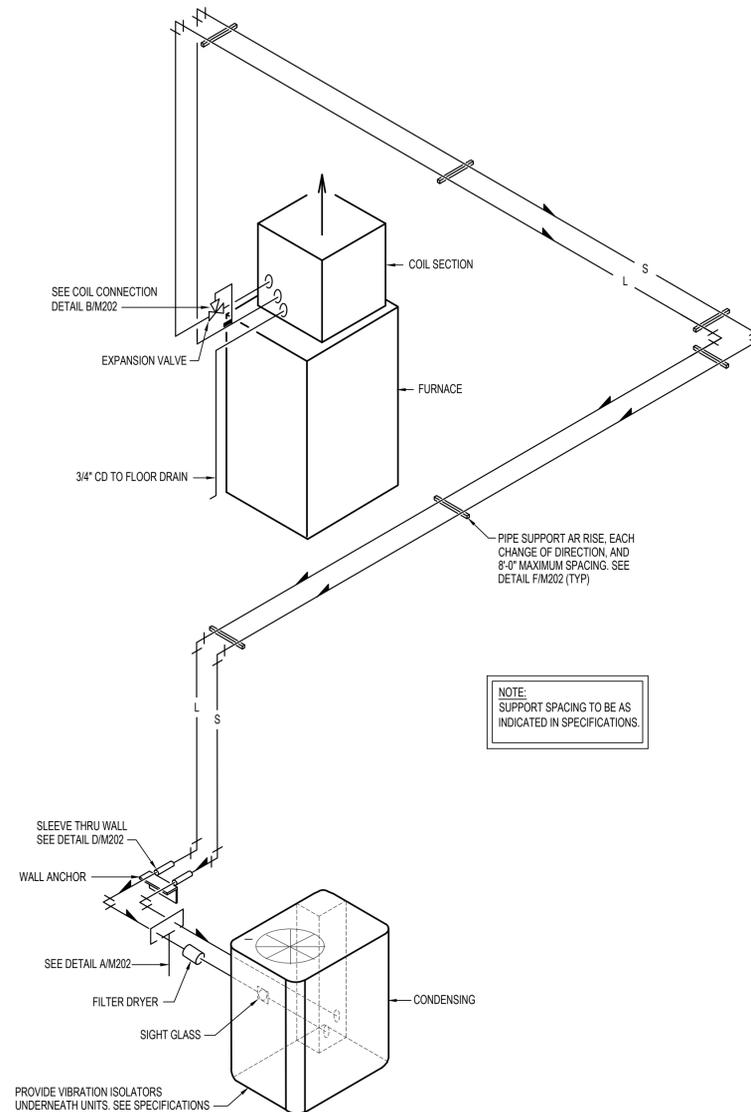


**D** CONDENSATE DRAIN TRAP DETAIL  
NO SCALE



**F** SUSPENDED PIPE SUPPORT  
NO SCALE

REFRIGERANT PIPING LEGEND (NOT ALL SYMBOLS MAY BE USED)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLEXIBLE CONNECTION		REFRIGERANT SHUT-OFF VALVE
	FILTER DRYER		EXPANSION VALVE
	ROOF PENETRATION		MOISTURE INDICATING SIGHT GLASS
	EXTERIOR PIPE SUPPORT		LIQUID LINE
	WALL ANCHOR		SUCTION LINE
	SUSPENDED PIPE SUPPORT		TRAP - ONE PIECE FACTORY FABRICATED
	CONDENSING UNIT		DX COOLING COIL



**G** TYPICAL REFRIGERANT SCHEME  
NO SCALE

PROFESSIONAL ENGINEER  
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Architect Project No. 22306  
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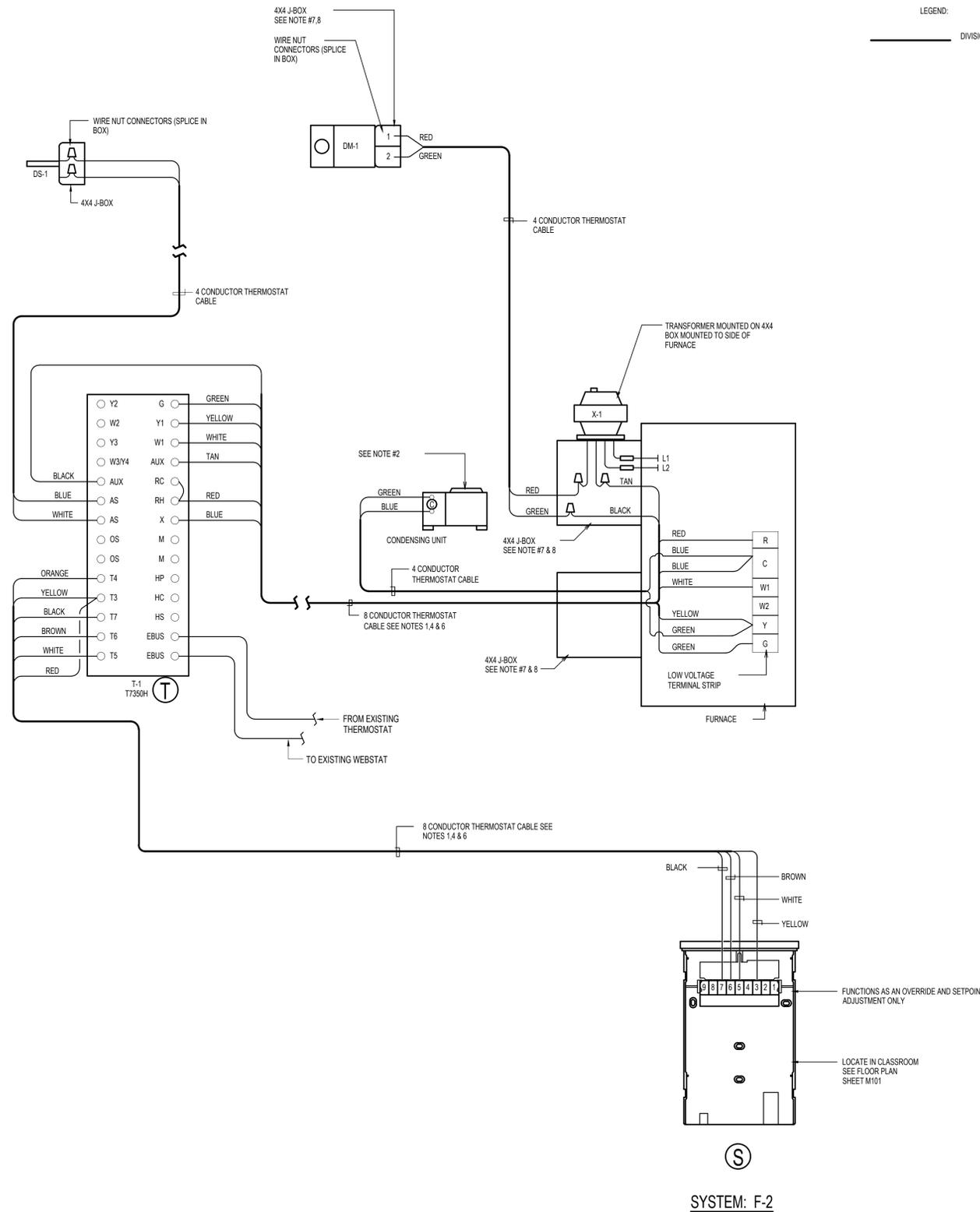
Kimberly Idaho Sr.  
Seminary - Classroom Addition  
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3680 N. 3450 E  
Kimberly, Idaho 83341

Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

Project Number: 550203922040201  
Plan Series: SEM07-01-7 (Addition)  
Property Number: 550-2039

Sheet Title:  
**REFRIGERANT PIPING DETAILS AND DIAGRAMS**

Sheet:  
**M202**



CONTROL EQUIPMENT		
MARK	DESCRIPTION	CAT. NO. 1
T-1	THERMOSTAT	T7350H1009
S-1	REMOTE TEMPERATURE SENSOR SELECTABLE 10K OHM OR 20K OHM	T7771A1005
DS-1	DISCHARGE AIR SENSOR	C7041B2005
DM-1	DAMPER MOTOR TWO POSITION	MS8105A1008
RIB	RELAY	FUNCTIONAL DEVICES RIBU1G
X-1	TRANSFORMER 120V/24V 50VA	AT150F1002

- ① ALL CATALOG NUMBERS SHOWN ARE HONEYWELL UNLESS NOTED OTHERWISE.
- ② SEE SPECIFICATION.
- ③ TO BE PURCHASED FROM AN APPROVED PANEL BUILDER SEE SPECIFICATION.

- NOTES:**
- THERMOSTAT CABLE- 4, 8 OR 12 CONDUCTOR-18 AWG SOLID COPPER WIRE INSULATED WITH HIGH DENSITY POLYETHYLENE. CONDUCTORS PARALLEL ENCLOSED IN BROWN PVC JACKET. (NO 22 AWG CABLE ALLOWED).
  - IF CONDENSING UNITS HAVE THEIR OWN POWER SUPPLY IT MAY BE NECESSARY TO ADD ADDITIONAL RELAYS IN CONDENSING UNIT TO PROPERLY INTERFACE CONTROLS.
  - USE WIRE NUT CONNECTORS FOR SPLICING CONDUCTORS IN SPECIFIED LOCATIONS, AND TYTON TYPE CRIMP CONNECTORS FOR TERMINAL CONNECTIONS. NO TERMINAL CONNECTORS REQUIRED AT THERMOSTAT OR SENSOR.
  - DO NOT RUN ANY OTHER WIRING IN THIS CONDUIT EXCEPT THERMOSTAT CABLE.
  - VERIFY THAT FURNACE FAN SPEED CONTROL WIRING IS SET TO MATCH SCHEDULE SHEET AND THAT FAN OPERATES AT COOLING SPEED ONLY.
  - DO NOT SPLICE WIRE IN RUNS FROM SENSOR TO THERMOSTAT, THERMOSTAT TO FURNACE, AND THERMOSTAT TO DISCHARGE AIR SENSOR.
  - PROVIDE CHASE NIPPLE WITH PLASTIC BUSHING WHEN ATTACHING J-BOX TO EQUIPMENT.
  - PROVIDE CABLE CLAMP SO THAT CABLES CANNOT BE PULLED OUT OF J-BOX.

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Sheet Title:  
**AUTOMATIC TEMPERATURE CONTROLS**

Sheet:  
**ME101**

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