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**Mechanical Engineers**

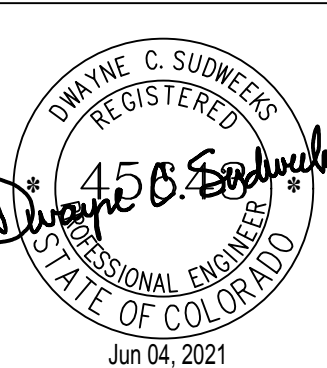
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PROPERTY # 529-4835

**HVAC REPLACEMENT FOR:**  
**LDS DEL NORTE BRANCH**  
 100 SAN FRANCISCO CREEK DRIVE DEL NORTE, COLORADO 81132

SHEET TITLE: **MECH. / ELEC. FLOOR PLANS**

PROJECT:



DRWN. BY: SR  
 CKD. BY: DCS  
 JOB NO. 21039  
 DATE: JUNE 2021

SHEET: **ME-1**  
 OF: TWO

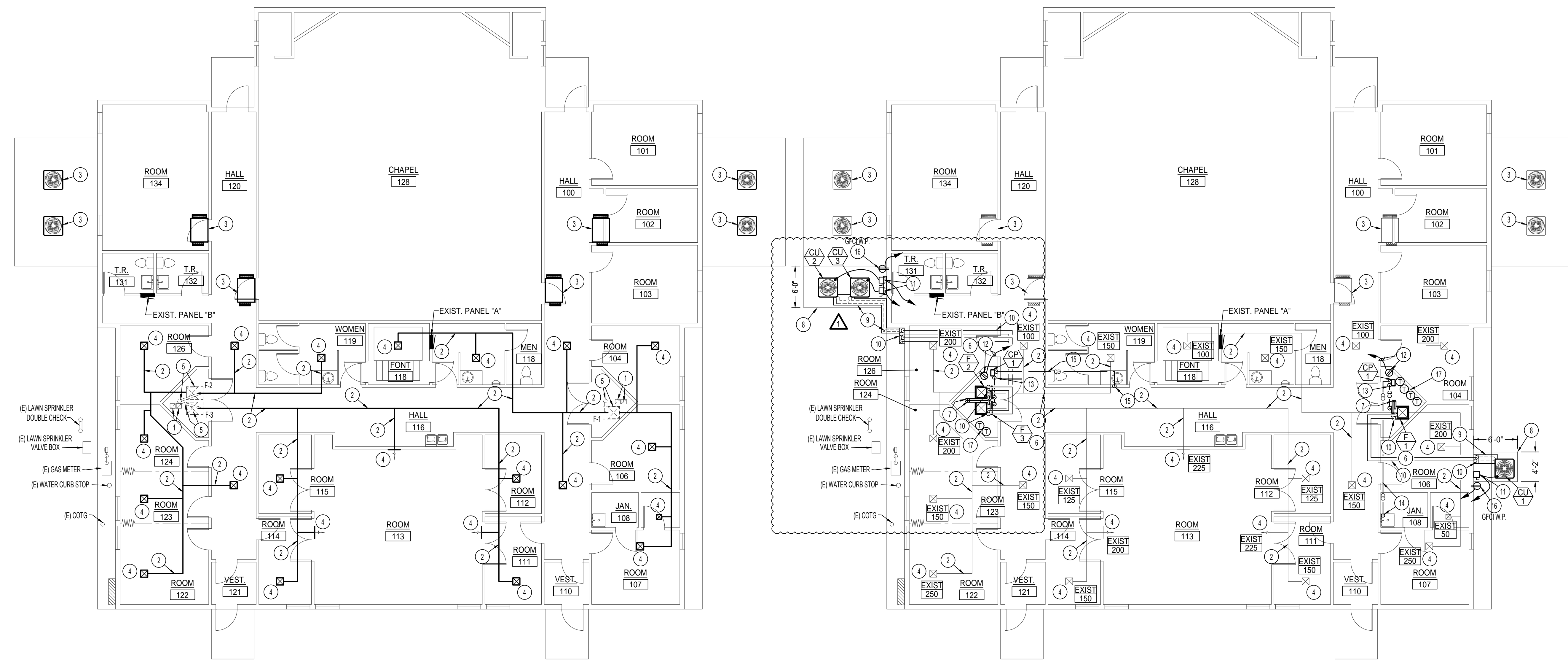
**PLAN NOTES:**

- REMOVE EXISTING COMBUSTION AIR DUCTS INSIDE MECH. ROOM BACK TO CEILING LEVEL. CAP DUCTS AT CEILING USING SHEET METAL AND SEAL AIRTIGHT.
- EXISTING SUPPLY AIR DUCTWORK TO REMAIN.
- EXISTING FURNACE AND ASSOCIATED CONDENSING UNIT TO REMAIN. NO WORK REQUIRED.
- EXISTING CEILING DIFFUSER / SIDEWALL REGISTER TO REMAIN. BALANCE TO CFM AS SHOWN ON PLAN.
- REMOVE EXISTING GAS FURNACE AND FLUE THRU ROOF. DISCONNECT EXISTING GAS PIPING & ELEC. FROM FURNACE.
- INSTALL NEW FURNACE AND DX COOLING COIL AND RECONNECT TO EXISTING SUPPLY & RETURN AIR DUCTWORK AND ELEC. CIRCUIT. PROVIDE AND INSTALL DUCT TRANSITIONS AS REQUIRED. RECONNECT GAS PIPING TO NEW GAS FURNACE.
- RISE (2) 3"Ø FURNACE FLUES UP THRU ROOF TO VERTICAL VENT TERMINATION ASSEMBLY. SEE DETAIL ON SHEET ME-2. CONTRACTOR MAY UTILIZE EXISTING OPENING IN ROOF WHERE EXISTING FURNACE FLUE WAS REMOVED. SEAL ROOF PENETRATION WEATHERTIGHT.
- INSTALL NEW CONDENSING UNIT ON 4" THICK CONCRETE PAD IN LOCATION SHOWN. COORDINATE WITH EXISTING LAWN SPRINKLER SYSTEM AND RELOCATE HEADS AND PIPING AS REQUIRED. REMOVE ANY SHRUBS THAT CONFLICT WITH LOCATION.
- COVER EXPOSED REFR. PIPING WITH 18 GA. SHEET METAL COVER AND 24 GA. PREFINISHED METAL SKIN. SEE DETAIL ON SHEET ME-2.
- RISE REFR. PIPING UP EXPOSED ON EXTERIOR WALL TO SOFFIT AND RUN PIPING THRU SOFFIT INTO ATTIC SPACE. RUN ACROSS IN ATTIC SPACE AND DROP THRU EXISTING MECH. ROOM CLG. AND CONNECT TO NEW DX COOLING COIL.
- INSTALL NEW NEMA 3R FUSED DISCONNECT FOR NEW CONDENSING UNIT. FUSE AS PER LOAD OF NEW UNIT. SEE CONDENSING UNIT SCHEDULE ON THIS SHEET FOR LOAD AND FUSE INFORMATION. RUN 3/8" W GND. IN 1" CONDUIT TO NEAREST PANEL & INSTALL NEW 35 AMP 2 POLE BREAKER IN PANEL.
- INSTALL NEW CONVENIENCE OUTLET FOR NEW CONDENSATE PUMP FROM NEAREST FURNACE CIRCUIT. (2) #12-1/2" C. WITH GROUND.
- INSTALL NEW 3/4" CONDENSATE DRAIN PIPING ON NEW FURNACE & COOLING COIL AND RUN TO NEW CONDENSATE PUMP LOCATED ON FLOOR OF MECHANICAL ROOM.
- RISE 3/4" PUMPED CONDENSATE DRAIN UP TO WARM CEILING SPACE AND RUN AS SHOWN TO EXISTING MECHANICAL ROOM. DROP 3/4" CD PIPING DOWN EXPOSED ON WALL AND RUN TO EXISTING JAN. SINK WITH AIR GAP.
- RISE 3/4" PUMPED CONDENSATE DRAIN UP TO WARM CEILING SPACE AND RUN AS SHOWN TO EXISTING TOILET ROOM. DROP 3/4" CD PIPING DOWN IN WALL AND CONNECT TO SINK SIDE OF P-TRAP ON EXISTING LAVATORY DRAIN USING DISHWASHER CONNECTION.
- INSTALL NEW GFCI WITH IN-USE WEATHERPROOF COVER ON WALL. CONNECT TO NEAREST CONVENIENCE OUTLET CIRCUIT WITH 2 #12 W GND. IN 1/2" CONDUIT.
- EXISTING HONEYWELL PRESTIGE THERMOSTATS. DISCONNECT FROM EXISTING FURNACES BEING REMOVED & RECONNECT TO NEW FURNACES. ADD IN 2 CONDUCTOR THERMOSTAT CABLE FROM NEW CONDENSING UNIT TO NEW FURNACE & REPROGRAM THERMOSTAT FOR A/C.

**GENERAL NOTES:**

- THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONNECTIONS ON THE JOB SITE. ALL WORK SHALL BE EXECUTED FROM MEASUREMENTS TAKEN AT THE SITE.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO INSURE PROPER CODE CLEARANCES FOR ELECTRICAL AND MECHANICAL ACCESS WHEN INSTALLING ANY EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR.
- IT IS CRITICAL THAT THIS CONTRACTOR COORDINATE EQUIPMENT LOCATIONS WITH PIPING, DUCTWORK, ELECTRICAL CONDUIT AND BUILDING STRUCTURE TO INSURE CODE COMPLIANCE.
- CEILING DIFFUSERS ARE SHOWN IN APPROXIMATE LOCATIONS. REFER TO LIGHTING PLANS AND REFLECTED CEILING PLAN FOR EXACT LOCATIONS.
- DUCT DIMENSIONS CALLED OUT ON DRAWINGS ARE INSIDE FREE AREA DIMENSIONS. ACOUSTICAL DUCT LINER ARE TO BE ADDED TO OVERALL MEASUREMENTS.
- ALL DUCTWORK AND PIPING WHICH PASSES THRU FIRE RATED WALLS TO BE FIRE STOPPED WITH APPROVED FOAM OR SEALANT. REFER TO SPECIFICATIONS FOR APPROVED MANUFACTURERS.

ADDENDUM #1 JUNE 14, 2021



**MECH. / ELEC. DEMOLITION FLOOR PLAN**

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



**MECHANICAL / ELEC. FLOOR PLAN**

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



**FURNACE AND DX COOLING COIL SCHEDULE**

SYM.	TYPE	C.F.M.	SP <sub>E</sub>	SPEED	H.P.	CHAR.	A.G.A.			E.A.T.	L.A.T.	GAS TYPE	DX COOLING COIL				PIPING SIZES				REMARKS		
							INPUT	OUTPUT	@ ELEV.				B.T.U.	E.A.T.	L.A.T.	MAX. P.D.	LIQUID	SUCTION	C.D.	NAT GAS		INTAKE	EXHAUST
F1	UPFLOW	1200	60"	M-HIGH	1/2	120/60/1	88,000	85,000	59,500	65°F	105°F	NAT	36,000	75°F	55°F	25"	SEE C. UNIT SCHED.	SEE C. UNIT SCHED.	3/4"	3/4"	3" PVC	3" PVC	3 TON FURNACE WITH FULLY CASED R-410A DX COOLING COIL TO MATCH FURNACE & VERTICAL VENT TERMINAL ASSEMBLY.
F2	UPFLOW	1200	60"	M-HIGH	1/2	120/60/1	88,000	85,000	59,500	65°F	105°F	NAT	36,000	75°F	55°F	25"	SEE C. UNIT SCHED.	SEE C. UNIT SCHED.	3/4"	3/4"	3" PVC	3" PVC	3 TON FURNACE WITH FULLY CASED R-410A DX COOLING COIL TO MATCH FURNACE & VERTICAL VENT TERMINAL ASSEMBLY.
F3	UPFLOW	1200	60"	M-HIGH	1/2	120/60/1	88,000	85,000	59,500	65°F	105°F	NAT	36,000	75°F	55°F	25"	SEE C. UNIT SCHED.	SEE C. UNIT SCHED.	3/4"	3/4"	3" PVC	3" PVC	3 TON FURNACE WITH FULLY CASED R-410A DX COOLING COIL TO MATCH FURNACE & VERTICAL VENT TERMINAL ASSEMBLY.

**CONDENSATE PUMP SCHEDULE**

SYM.	GPH	HEAD	H.P.	CHAR.	RECEIVER SIZE	REMARKS
CP1	25	18'	1/30	115/60/1	0.5 GALLON	LITTLE GIANT MODEL VCMX-20ULS WITH 6'-0" POWER CORD AND 3/4" DRAIN LINE

SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS

**CONDENSING UNIT SCHEDULE**

SYM.	BTU	EAT	CHAR.	MCA	MOCP	SEER	REFR.	PIPE SIZING		REMARKS
								LIQUID	SUCTION	
CU1	36,000	95°F	240/60/1	21.9	35.0	14.0	R-410A	5/8"	7/8"	3 TON CONDENSING UNIT WITH 0°F LOW AMBIENT HARD START KIT.
CU2	36,000	95°F	240/60/1	21.9	35.0	14.0	R-410A	5/8"	7/8"	3 TON CONDENSING UNIT WITH 0°F LOW AMBIENT HARD START KIT.
CU3	36,000	95°F	240/60/1	21.9	35.0	14.0	R-410A	5/8"	7/8"	3 TON CONDENSING UNIT WITH 0°F LOW AMBIENT HARD START KIT.

**MECH. LEGEND**

SYMBOL	DESCRIPTION
	DEMO EQUIPMENT, DUCTWORK, ETC.
	ATC PANEL
	ELECTRONIC SENSOR
	ELECTRONIC THERMOSTAT
	EQUIPMENT SYMBOL
	REFRIGERANT PIPING
	HAND DAMPER
	MOTORIZED DAMPER
	SIDEWALL REGISTER SUPPLY OR RETURN AIR
	RETURN AIR OR EXHAUST GRILLE
	CEILING DIFFUSER
	VERTICAL UPFLOW GAS FURNACE