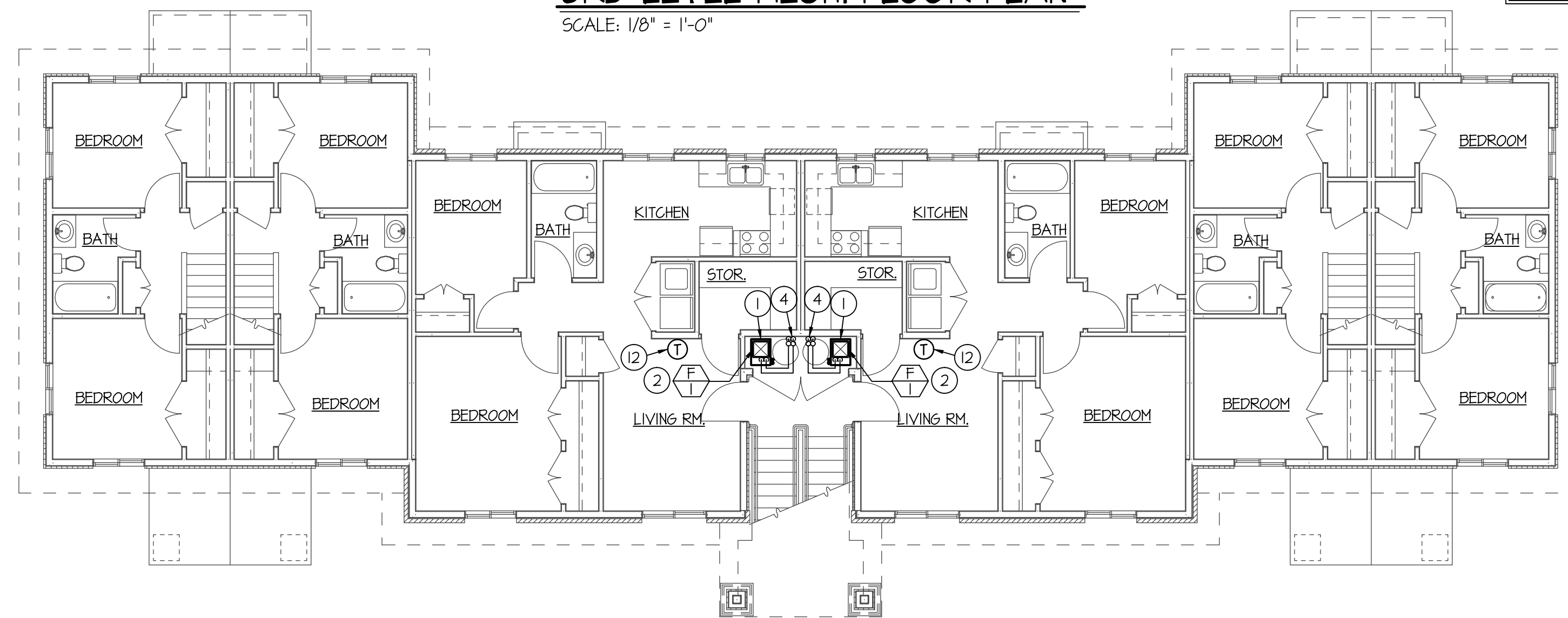


**BUILDINGS #1,2,3,4,7,8,9,10,14&16**  
**3RD LEVEL MECH. FLOOR PLAN**

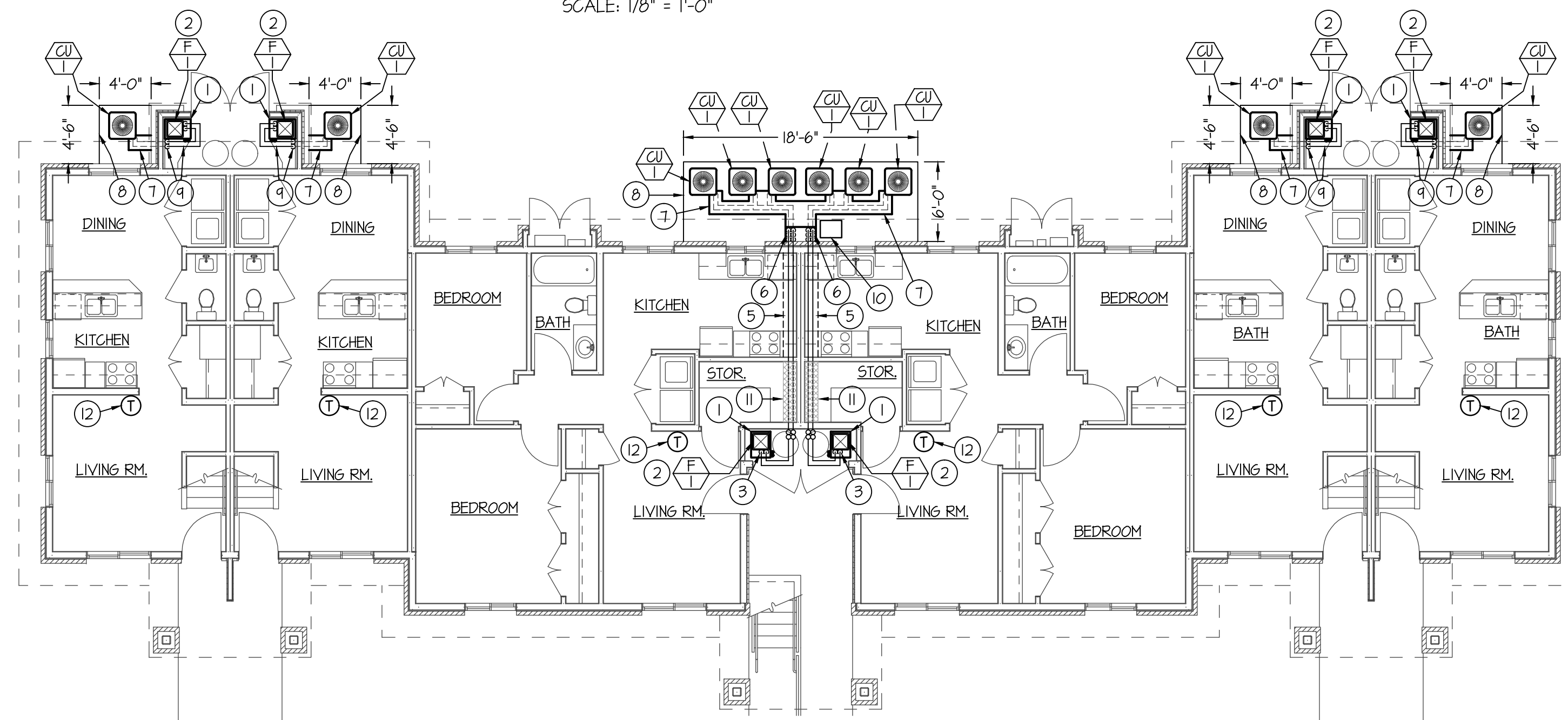
SCALE: 1/8" = 1'-0"

**NOTE:**  
 CONTRACTOR TO VERIFY ACTUAL LENGTHS OF REFRIGERANT PIPING TO BE INSTALLED BETWEEN EACH DX COOLING COIL AND CONDENSING UNIT AND SIZE PIPING ACCORDING TO MANUFACTURER'S INSTRUCTIONS.



**BUILDINGS #1,2,3,4,7,8,9,10,14&16**  
**2ND LEVEL MECH. FLOOR PLAN**

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



**BUILDINGS #1,2,3,4,7,8,9,10,14&16**  
**MAIN LEVEL MECH. FLOOR PLAN**

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

**PLAN NOTES:**

- ① EXISTING FURNACE. INSTALL NEW FURNACE AND DX COOLING COIL AND RECONNECT TO EXISTING GAS PIPING, RETURN AIR PLENUM AND DUCTWORK. MODIFY EXISTING RETURN AIR PLENUM OVERALL HEIGHT, RETURN & SUPPLY AIR DUCTWORK & OUTSIDE AIR DUCT TO ACCOMMODATE NEW FURNACE AND DX COIL AS REQUIRED. RELOCATE EXISTING ROUND SUPPLY AIR OUTLET FEEDING MECH. ROOM AS REQUIRED. INSTALL NEW 3/4" PVC CONDENSATE DRAIN PIPING FROM NEW DX COIL AND NEW FURNACE TO FLOOR DRAIN COMPLETE WITH AIR GAP.
- ② INSTALL NEW R410A DX COOLING COIL ON EXISTING UPFLOW FURNACE. PROVIDE DUCT TRANSITION AS REQUIRED. INSTALL 3/4" CONDENSATE DRAIN LINE FROM NEW DX COIL AND CONNECT TO EXISTING 3/4" CONDENSATE DRAIN LINE FROM EXISTING FURNACE FLOWING TO EXISTING FLOOR DRAIN IN MECH. ROOM.
- ③ CONNECT NEW REFRIGERANT PIPING TO NEW DX COOLING COIL ON MAIN LEVEL FURNACE AND RISE REFRIGERANT PIPING UP TO CEILING OF MECHANICAL ROOM AND RUN AS SHOWN.
- ④ CONNECT NEW REFRIGERANT PIPING TO NEW DX COOLING COIL ON FURNACE AND DROP REFRIGERANT PIPING THRU FLOOR OF MECHANICAL ROOM TO MAIN LEVEL MECHANICAL ROOM CEILING.
- ⑤ RUN (3) SETS OF NEW REFRIGERANT PIPING AS HIGH AS POSSIBLE TIGHT TO THE EXISTING CEILING OF MAIN LEVEL APT. IN NEW CEILING FURR-DOWN FROM EXISTING MAIN LEVEL MECH. ROOM TO EXTERIOR WALL. CONSTRUCT NEW FURR-DOWN AS PER DETAIL ON SHEET M2.0 USING 2x2 FURRING STRIPS AND 5/8" 61P. BOARD. TAPE, TEXTURE AND PAINT TO MATCH EXISTING ROOM FINISHES.
- ⑥ COVER EXPOSED REFRIGERANT PIPING DROPPING ON EXTERIOR WALL WITH PREFINISHED METAL COVER. SEE DETAIL ON SHEET M2.0.
- ⑦ COVER EXPOSED REFRIGERANT PIPING ON TOP OF CONCRETE PAD RUNNING TO CONDENSING UNITS WITH 18 GA. GALVANIZED SHEET METAL COVER COMPLETE WITH 24 GA. PREFINISHED METAL COVER. SEE DETAIL ON SHEET M2.0.
- ⑧ INSTALL CONDENSING UNITS ON 4" THICK CONCRETE PAD. RELOCATE EXISTING LAWN SPRINKLER PIPING AND HEADS AS REQUIRED FOR NEW CONCRETE PAD LOCATION. FIELD VERIFY EXISTING CONDITIONS.
- ⑨ CONNECT NEW REFRIGERANT PIPING TO NEW DX COOLING COIL ON MAIN LEVEL FURNACE AND RISE REFRIGERANT PIPING UP TO CEILING OF MECHANICAL ROOM. RUN PIPING ACROSS CEILING AND DROP DOWN EXPOSED ON MECHANICAL ROOM WALL. RUN PIPING THRU EXTERIOR WALL AS LOW AS POSSIBLE AND CONNECT TO CONDENSING UNIT.
- ⑩ EXISTING GAS METER TO REMAIN. PROTECT DURING CONSTRUCTION AND COORDINATE FINAL LOCATION OF NEW REFRIGERANT PIPING, COVERS AND CONTROL CONDUIT TO AVOID CONFLICTS.
- ⑪ CUT AND PATCH EXISTING CEILING OVER STORAGE ROOM TO INSTALL NEW REFR. PIPING AND CONTROL CONDUIT AS REQUIRED. TAPE TEXTURE AND PAINT TO MATCH EXISTING FINISHES.
- ⑫ REMOVE EXISTING THERMOSTAT & REPLACE WITH NEW HEATING AND COOLING T-STAT (VERIFY ACTUAL LOCATION). INSTALL NEW 5 WIRE THERMOSTAT CABLE FROM NEW THERMOSTAT TO NEW FURNACE AND 2 WIRE TO ASSOCIATED CONDENSING UNIT. RUN NEW CONTROL WIRING IN NEW FURR-DOWN TO CONDENSING UNIT.

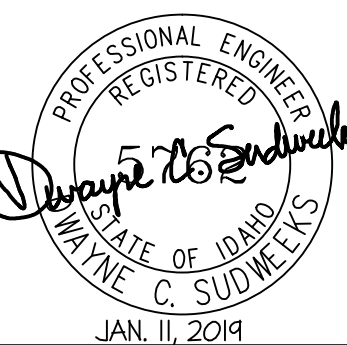


**Engineered Systems Associates**  
**Mechanical Engineers**

Dwayne Sudweeks  
 1355 East Center - Pocatello, Idaho 83201  
 Phone: (208) 233-0501 Fax: (208) 233-0529 email: esa@engsystems.com

**AIR CONDITIONING FOR:**  
**BYU-IDAHO VILLAGE APARTMENTS**  
 REXBURG, IDAHO

**BLDGs. #1,2,3,4,7,8,9,10,14&16 MECH. PLANS**



DRWN. BY: SR	CHK. BY: DCS
JOB NO. 18069	DATE: JAN. 2014

SHEET:  
**M.1**  
 OF: SIX