



**MECHANICAL PLAN**  
1/4"=1'-0"

**HVAC GENERAL NOTES:**

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY ALLEGIATED IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT/ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY DIFFER FROM AS-BUILT CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND MODIFICATIONS WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MECHANICAL CONTRACTOR TO PROVIDE TENANT AS-BUILT DRAWINGS AND EQUIPMENT SHOP DRAWINGS. INFORMATION ON THERMOSTAT CONTROL WIRING DIAGRAMS AND OTHER PERTINENT INFORMATION A PREREQUISITE OF PROJECT.
- COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC.
- AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION DURING WORK. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
- ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
- NEW MECHANICAL EQUIPMENT AND DUCTWORK ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- GC MUST FLUSH ALL MECHANICAL PIPING PRIOR TO CONNECTING TO BUILDING SYSTEMS.
- FLEXIBLE INSULATED DUCTS SHALL BE MAXIMUM 5'-0" LONG AND SHALL MEET INSTALLATION AND MATERIAL REQUIREMENTS OF LOCAL CODES.
- ALL BRANCH TAKE-OFFS SHALL BE PROVIDED WITH MANUAL BALANCING DAMPERS.
- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE TEMPERATURE CONTROL SYSTEM TO INCLUDE: PANELS, MODULES, RELAYS, WIRING, THERMOSTATS, SENSORS, DAMPERS, ACTUATORS AND ALL MISCELLANEOUS ITEMS AS REQUIRED TO FULFILL THE DESIGN INTENT AS INDICATED ON THE PLANS AND IN THE CODED NOTES.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR FOR ALL EQUIPMENT POWER REQUIREMENTS PRIOR TO ORDERING AND FINAL INSTALLATION OF EQUIPMENT.

**MECHANICAL CODED NOTES:**

- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL A PROGRAMMABLE THERMOSTAT WITH A REMOTE SENSOR, WHERE INDICATED ON THE PLANS. REFER TO THERMOSTAT NOTE ON M1.1 FOR MORE INFORMATION. THERMOSTAT AND SENSORS SHALL BE MOUNTED AT 4 FT. ABOVE FINISHED FLOOR. COORDINATE EXACT LOCATIONS WITH TENANT. THE CONTROL SYSTEM SHALL INCLUDE THE FOLLOWING COMPONENTS AND FUNCTIONS:
  - PROGRAMMABLE THERMOSTAT WITH REMOTE SENSOR
  - THE SYSTEM SHALL AUTOMATICALLY INDEX EQUIPMENT TO THE HEATING, COOLING AND ECONOMIZER OCCUPIED AND UNOCCUPIED MODES OF OPERATION.
- AHU-1 & 2 LANDLORD FURNISHED SPLIT SYSTEM DX AIR HANDLING COOLING UNIT. REFER TO AHU SCHEDULE FOR ADDITIONAL INFORMATION. THIS CONTRACTOR TO PROVIDE POWER AND START UP.
- ACCU-1 & 2 LANDLORD FURNISHED DX CONDENSING UNIT. REFER TO ACCU SCHEDULE FOR ADDITIONAL INFORMATION. THIS CONTRACTOR TO PROVIDE POWER AND START UP.
- DUCT SMOKE DETECTOR TO DE-ENERGIZE AHU FAN. SMOKE DETECTOR TO BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR. INSTALLATION BY THE MECHANICAL CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDENSATE DRAINS FROM ALL UNITS AS INDICATED ON PLANS. MINIMUM DRAIN SIZE TO BE 1" OR AS SPECIFIED ON PLANS. CONDENSATE DRAIN TO BE TRAPPED WITH A MINIMUM 5" TRAP DEPTH. DRAINS SHALL BE EXTENDED AT A SLOPE OF 1" PER 40'. ROUTE DRAINS TO THE NEAREST APPROVED RECEPTOR WITH 2" AIR GAP. FURNISH AND INSTALL A CONDENSATE PUMP IF ADEQUATE FALL CANNOT BE OBTAINED. INTERIOR PIPING SHALL BE COPPER WITH WROUGHT FITTINGS.
- TOILET EXHAUST FAN COMPLETE WITH INTEGRAL BACKDRAFT DAMPER AND TIED TO LIGHT SWITCH. UNIT SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. REFER TO EXHAUST FAN SCHEDULE FOR MORE INFORMATION. CONTRACTOR TO FURNISH AND INSTALL EXHAUST DUCT AND ACCESSORIES AS REQUIRED. CONNECT EXHAUST DUCT TO NEAREST EXISTING WALL EXHAUST LOUVER.
- ECONOMIZER CONTROL DAMPERS AND ACTUATORS FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. PROVIDE HONEYWELL LOW-LEAKAGE DAMPERS SIZED TO MATCH DUCT SHOWN AND MODULATING ACTUATOR. SUPPLY LINKAGE TO MATCH. WIRE DAMPER TO ASSOCIATED UNIT CONTROLS SO DAMPER IS OPEN IN OCCUPIED MODE AND CLOSED IN UNOCCUPIED MODE. ALL WIRING EQUIPMENT AND MISCELLANEOUS CONTROL DEVICES BY MECHANICAL CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL DUCTWORK SIZED AS INDICATED. FOR OUTSIDE AIR, EXTEND DUCTWORK FROM EXISTING WALL LOUVER AND CONNECT DUCTWORK TO TOP OF MIXING

THERMOSTAT CONTROLS	
SIMULTANEOUS HEATING AND COOLING SHALL NOT OCCUR.	
THERMOSTATS TO HAVE A DEADBAND OF 5 DEGREES.	
THERMOSTATS TO HAVE SETPOINT OVERLAP RESTRICTIONS.	
HUMIDIFICATION AND SIMULTANEOUS DEHUMIDIFICATION ARE NOT PERMITTED.	

SYMBOL LEGEND			
	DESCRIPTION SUPPLY AIR DIFFUSER SHADING DENOTES BLANK-OFF		DESCRIPTION RETURN AIR GRILLE OR DUCT
	DESCRIPTION DUCT MOUNTED DIFFUSER		DESCRIPTION SIDEWALL MOUNTED SUPPLY OR RETURN AIR LINEAR DIFFUSER
	DESCRIPTION SUPPLY AIR DUCT RISE SIMILAR FOR RETURN AIR		DESCRIPTION SUPPLY AIR DUCT DROP SIMILAR FOR RETURN AIR
	DESCRIPTION HIGH SIDE WALL		DESCRIPTION LOW SIDE WALL
	DESCRIPTION ROOF MOUNTED EQUIPMENT NOTED		DESCRIPTION CEILING EXHAUST FAN
	DESCRIPTION THERMOSTAT SENSORS		DESCRIPTION TURNING VANES
	DESCRIPTION DUCT TRANSITIONS		DESCRIPTION BRANCH DUCT WITH SPIN-IN FITTING AND VOLUME DAMPER
	DESCRIPTION F.D. - FIRE DAMPER		DESCRIPTION DUCT SMOKE DETECTOR
	DESCRIPTION M.C.		DESCRIPTION E.C.

BOX. ENSURE 6 FEET OF CLEARANCE FROM TOP OF ANY ELECTRICAL PANELS TO BOTTOM OF DUCT.

- EF-3 FITTING ROOM EXHAUST FAN COMPLETE WITH INTEGRAL BACKDRAFT DAMPER. CONTROL VIA TIMELOCK. PROVIDE WITH SPEED CONTROLLER AT LOCATION INDICATED ON PLANS. UNIT SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. REFER TO EXHAUST FAN SCHEDULE FOR MORE INFORMATION. CONTRACTOR TO FURNISH AND INSTALL EXHAUST DUCT AND ACCESSORIES AS REQUIRED. CONNECT EXHAUST DUCT TO NEAREST EXISTING WALL EXHAUST LOUVER.
  - SUPPLY DUCT SCENT MACHINE. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
  - EXISTING 76"X22" LOUVERS TO REMAIN. PROVIDE PLENUM BOX AT LOUVER AND PITCH PLENUM BOX TOWARD EXTERIOR TO ALLOW FOR DRAINAGE. SEAL ALL SEAMS WATER TIGHT.
  - EXISTING WALL EXHAUST FOR TOILET DUCTWORK TO BE REUSED. ENSURE 10 FEET CLEARANCE FROM EXISTING OUTDOOR AIR INTAKES.
  - PROVIDE CARBON MONOXIDE DETECTOR IN BACK OF HOUSE.
  - 24" X 24" CEILING ACCESS PANEL BY GENERAL CONTRACTOR. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ARCHITECTURAL SPECIFICATIONS FOR FURTHER INFORMATION. ACCESS PANEL TO BE USED FOR ACCESS TO EQUIPMENT LOCATED ABOVE THE CEILING. THIS CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT A MINIMUM UNOBSTRUCTED FREE AREA OF 3- FEET VERTICALLY AND 2- FEET HORIZONTALLY IN ALL DIRECTIONS AROUND EQUIPMENT IS MAINTAINED TO ALLOW FOR INSTALLATION AND MAINTENANCE OF EQUIPMENT. IF THIS FREE AREA CANNOT BE OBTAINED, CONTACT THE 'S' CONSTRUCTION MANAGER IMMEDIATELY.
  - MOTORIZED RELIEF AIR DAMPER AND ACTUATOR FOR ECONOMIZER OPERATION. PROVIDE HONEYWELL LOW-LEAKAGE DAMPER SIZED TO MATCH DUCT SHOWN AND MODULATING ACTUATOR. SUPPLY LINKAGE TO MATCH. WIRE DAMPER TO ASSOCIATED UNIT CONTROLS. ALL WIRING EQUIPMENT AND MISCELLANEOUS CONTROL DEVICES BY MECHANICAL CONTRACTOR.
  - PROVIDE AN OPENING, SIZE AS NOTED ON PLANS, IN WALL ABOVE CEILING FOR RETURN AIR. (FURNISH AND INSTALL A FIRE DAMPER IN ALL RATED WALL ASSEMBLIES).
  - LANDLORD PROVIDED REFRIGERANT PIPING.
  - PROVIDE WALL DOES NOT GO FULL HEIGHT. IF FULL HEIGHT THEN PROVIDE RETURN AIR OPENINGS.
- VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO BID.

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Drawing title:  
**MECHANICAL PLAN**

Sheet no.  
**M1.2**