

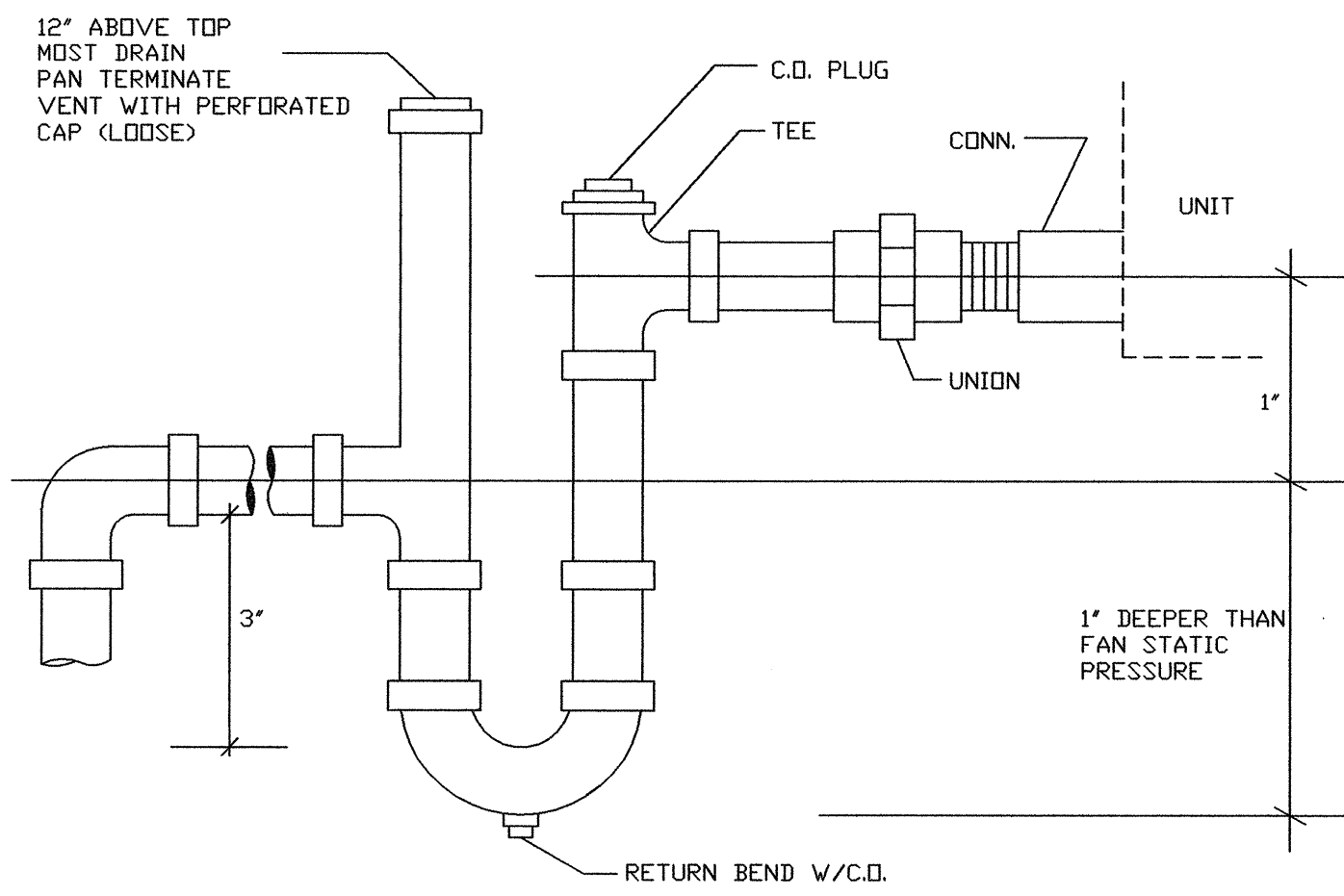
GENERAL MECHANICAL NOTE

- VISIT THE SITE BEFORE SUBMITTING A BID. DETERMINE THE CHARACTERISTICS OF EXISTING FACILITIES WHICH WILL AFFECT PERFORMANCE OF THE WORK, BUT WHICH ARE NOT SHOWN ON THE DRAWINGS OR THE SPECIFICATIONS.
- SHOP DRAWINGS OR FULLY DESCRIPTIVE CATALOG DATA SHALL BE SUBMITTED BY THE CONTRACTOR FOR ALL KINDS OF MATERIAL AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS CONTRACT. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT A SUFFICIENT NUMBER OF COPIES OF ALL SUCH SHOP DRAWINGS OR CATALOG DATA TO PROVIDE HIM WITH AS MANY REVIEWED COPIES AS HE MAY NEED, PLUS TWO (2) COPIES FOR RETENTION BY THE ARCHITECTS AND ENGINEERS.
- CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS SHALL BE BY THE GENERAL CONTRACTOR.
- ALL OPENINGS IN BUILDING STRUCTURE, FOR DUCTWORK, PIPING, ETC. TO BE 1/2" LARGER (ON ALL SIDES) THAN THE OUTSIDE DIMENSIONS. FILL VOIDS WITH FIRE RETARDANT SILICONE FOAM (I.E. CHASE-FOAM CTC® PR-855 BY CHASE TECHNOLOGY CORP.).
- CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.

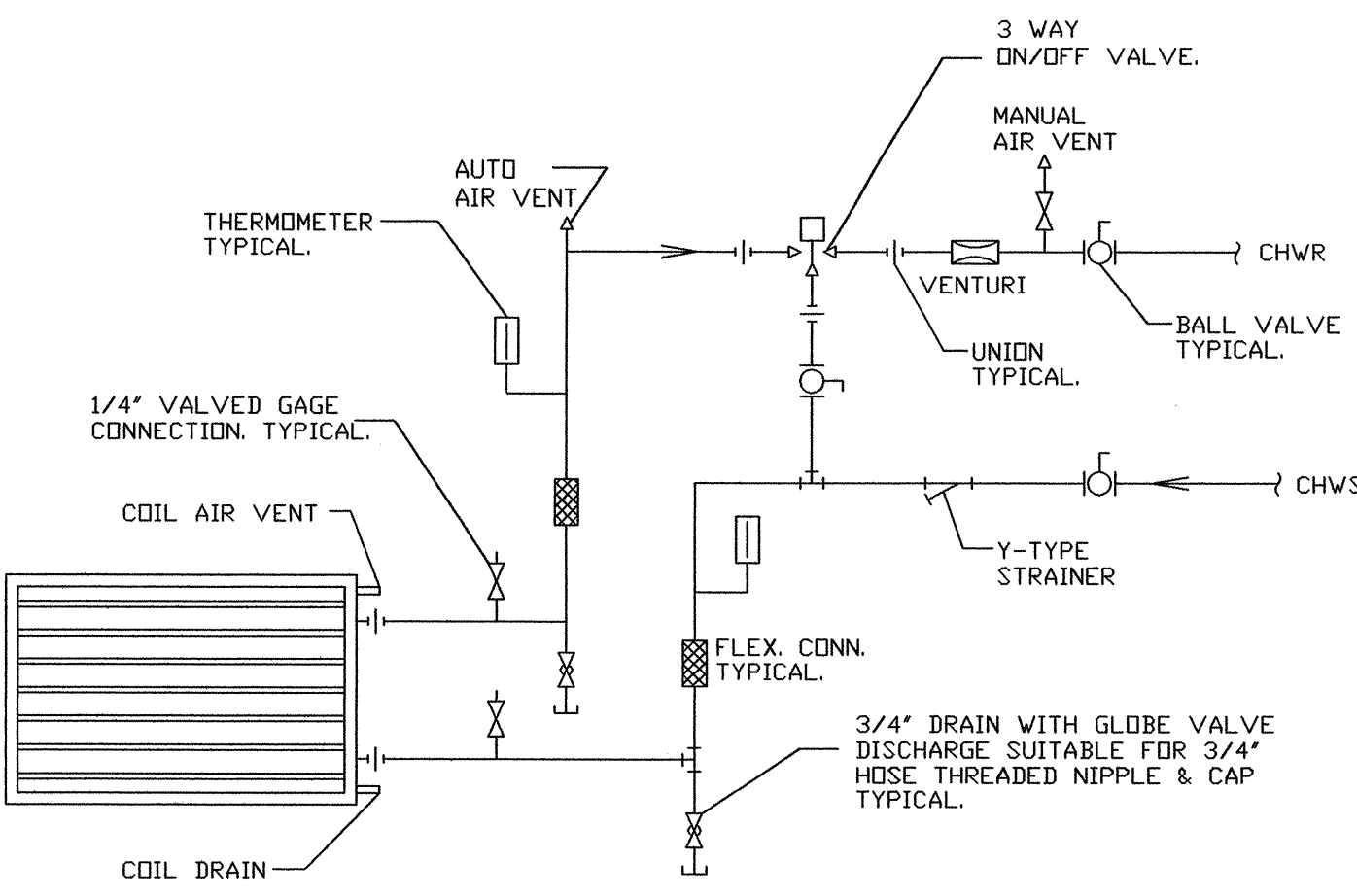
GENERAL HVAC NOTES

- VISIT THE SITE PRIOR TO SUBMITTING A BID. DETERMINE THE CHARACTERISTICS OF EXISTING FACILITIES WHICH WILL AFFECT PERFORMANCE OF THE WORK, BUT WHICH ARE NOT SHOWN ON THE DRAWINGS.
- PROVIDE ALL LABOR PERMITS, MATERIAL, TOOLS, SUPPLIES, EQUIPMENT TO INSTALL A COMPLETE AND OPERATING AIR CONDITIONING SYSTEM. INSTALLATION SHALL BE IN ACCORDANCE WITH LOCAL CODES.
- PAY ALL COSTS OF PERMIT INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT.
- ALL CONDITIONED AIR DUCTWORK SHALL BE FIBREGLASS, R=4.2 MIN. EXHAUST & OUTSIDE AIR DUCTWORK SHALL BE GALVANIZED STEEL. ALL BENDS GREATER THAN 45 DEGREES SHALL HAVE TURNING VANES. CONTRACTOR SHALL VERIFY ALL CLEARANCES AND ADJUST FOR FIELD CONDITIONS PRIOR TO CONSTRUCTING ANY DUCTWORK. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. INSTALL ALL DUCTWORK PER APPROPRIATE SMACNA STANDARD.
- THE CONTRACTOR SHALL FURNISH A WRITTEN WARRANTY THAT SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY THE ARCHITECT. ANY BREAK-DOWN OCCURRING IN THE FIRST YEAR SHALL BE REPAIRED AT NO COST TO THE OWNER. A/C COMPRESSORS SHALL HAVE A 5 YEAR GUARANTEE.
- PROVIDE & INSTALL ALL CONTACTORS, RELAYS, AND CONTROLS.
- HVAC CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT FOR ALL MECHANICAL SYSTEMS AND INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLS, RETURN GRILLS, AND EXHAUST GRILLS AND THE LEAVING AND ENTERING AIR TEMPERATURE (F) FROM AT EACH EVAPORATOR COIL. INCLUDE ALL VOLTAGE AND AMPERAGE FOR EACH MOTOR. WATER SIDE PERFORMANCE DATA
COIL GPM
COIL ENTERING & LEAVING WATER TEMPERATURES
COIL HEAD LOSS-FT
VENTURI DIAMETER-IN
VENTURI DIFFERENTIAL HEAD-IN WC
CALCULATE COIL CAPACITY

- THE REPORT SHALL BE DONE BY AN INDEPENDANT T&E CONTRACTOR LICENSED BY THE STATE OF FLORIDA AND SUBMITTED TO THE ARCHITECT.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS OR METALARE.
- ALL BRANCH TAKE OFFS TO BE PROVIDED W/ MANUAL VOLUME DAMPERS. ALL ELBOWS AND TEES MUST BE FURNISHED W/TURNING VANES. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL FLEX TAKE OFFS.
- PROVIDE NEW FILTERS FOR ALL AIR HANDLERS BEFORE STARTING THEM. REPLACE FILTERS PRIOR TO FINAL ACCEPTANCE BY OWNER.
- FIRE DAMPERS SHALL BE STYLE B WITH THE BLADES OUT OF THE AIRSTREAM. DAMPERS FOR RECTANGULAR DUCTS SHALL BE EQUAL TO RUSKIN #D-BD2 WITH 1 1/2 HOUR RATING & DAMPERS FOR ROUND DUCT SHALL BE EQUAL TO RUSKIN #D-IBD2-CR WITH 1 1/2 HOUR RATING.
- ALL PENETRATIONS OF FIRE RESISTIVE ASSEMBLIES INCLUDING FLOOR ASSEMBLIES SHALL BE PROTECTED BY AN APPROVED THROUGH STOP ASSEMBLY AND INSPECTED FOR COMPLIANCE PRIOR TO CLOSE IN.
- THE DESIGN & INSTALLATION OF THE MECHANICAL SYSTEMS & ALL APPURTENANCES SHALL COMPLY STRICTLY WITH THE APPLICABLE PROVISIONS OF THE FLORIDA BUILDING MECHANICAL CODE & THE LOCAL AMENDMENTS TO THE FLORIDA BUILDING MECHANICAL CODE.
- PROVIDE A 10 FOOT MINIMUM CLEARANCE FROM ALL VENTS THROUGH ROOF (VTR) AND EXHAUST FANS TO OUTSIDE AIR INTAKES.
- ALL STORAGE ROOMS, TOILETS, ETC. WILL HAVE UNDERCUT DOORS TO PROVIDE VENTILATION REQUIRED WHEN DOOR OR TRANSFER GRILLES ARE NOT SHOWN.
- A/C CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS WORK FOR SIZE, LOCATION, CLEARANCE, ACCESS AND ELECTRICAL CHARACTERISTICS WITH ALL OTHER TRADES AND TO PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW BEFORE INSTALLATION OF DUCTWORK OR EQUIPMENT. SHOP DRAWINGS WILL INCLUDE BEAM OR STRUCTURE ELEVATION & REQUIRED EQUIPMENT ACCESS AREAS.
- COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- COORDINATE LOCATION OF AHU'S, THERMOSTATS, FANS AND DUCTWORK WITH BUILDING STRUCTURE AND OTHER TRADES SO THAT NO INTERFERENCES OCCUR.
- MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING, ELECTRICAL AND STRUCTURAL PLANS. DUCT BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- FAN DRIVES SHALL BE ADJUSTED TO DELIVER THE SPECIFIED CFM AGAINST THE ACTUAL STATIC PRESSURE OF THE INSTALLATION.
- CHILLED WATER PIPING (ABOVE GROUND) SHALL BE INSULATED WITH SECTIONAL PRE-FORMED CELLULAR GLASS PIPE INSULATION. ON PIPES AND FITTINGS 4 INCHES AND SMALLER INSULATION SHALL BE 1-1/2 INCH THICK; WHERE SAID PIPES AND FITTINGS ARE EXPOSED TO THE WEATHER, THE INSULATION SHALL BE 2 INCHES THICK. ON PIPES AND FITTINGS 5 INCHES AND LARGER INSULATION SHALL BE 2 INCHES THICK. BUTTER ALL JOINTS WITH MANUFACTURER'S RECOMMENDED MASTIC. JOINTS SHALL BE STAGGERED AND TIGHTLY FITTED. COVER WITH FIRE RESISTANT WHITE "STAY-DRY" JACKET. SELF-SEALING LAPS ARE ACCEPTABLE IF RECOMMENDED BY MANUFACTURER. SEAL ALL JOINTS, LAPS AND STAPLE HEADS WITH FIRE RESISTANT VAPOR SEAL MASTIC. FURNISH EXPANSION JOINT ON STRAIGHT RUNS OVER 40 FEET IN LENGTH CONSISTING OF A 2-INCH WIDE SECTION OF FOAMED PLASTIC INSULATION FINISHED WITH GLASFAB AND MASTIC. WHERE EXPOSED TO VIEW AND IN EQUIPMENT ROOMS, COVER INSULATION WITH GLASFAB AND WHITE MASTIC. FURNISH 16 GAUGE COPPERWELDED FASTENERS ON 12-INCH CENTERS.
- ALL CHILLED WATER PIPING SHALL BE TYPE L COPPER. PROVIDE DIELECTRIC FITTING WHERE CONNECTING TO DISSIMILAR METAL.



CONDENSATE PIPING DETAIL - NTS



COOLING/HEATING COIL DETAIL - NTS

AIR HANDLING UNIT SCHEDULE																	
UNIT NO.	SERVICE	MANUF.	MODEL NO.	CFM	STATIC PRESS.		FAN MOTOR		COOLING COIL								
					EXT.	TOTAL	ELEC.	H.P.	ENT. AIR DB	WB	TOTAL SENS.	MBH	ROWS	GPM	MAX P.D.	EWT	LWT
1	LOBBY	TRANE	BCVC024B	680	0.25	0.78	208/1	1/3	80	67	21.99	16.46	4	4.55	2.91	45	55

SCHEDULE NOTES:

- PROVIDE UNIT #1 WITH A 3.0KW HEATER & SINGLE POINT POWER CONNECTION.
- PROVIDE UNIT #1 WITH A DUPLEX CONDENSATE PUMP TO OPERATE AT THE SAME VOLTAGE AS THE UNIT. CONNECT TO THE SAME CIRCUIT AS THE UNIT. THE UNIT SHALL NOT OPERATE IF THE CONDENSATE PUMP FAILS.

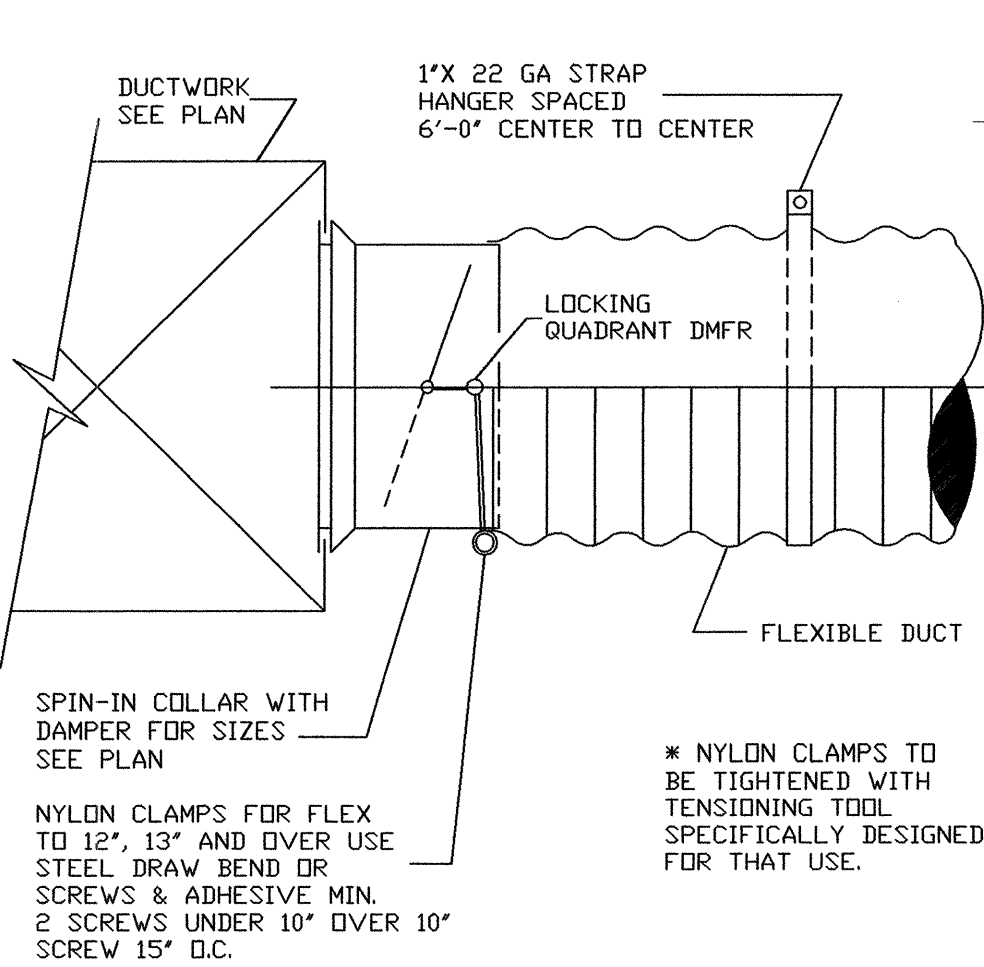
OUTDOOR AIR SUPPLY CALCULATION

SYSTEM - #1

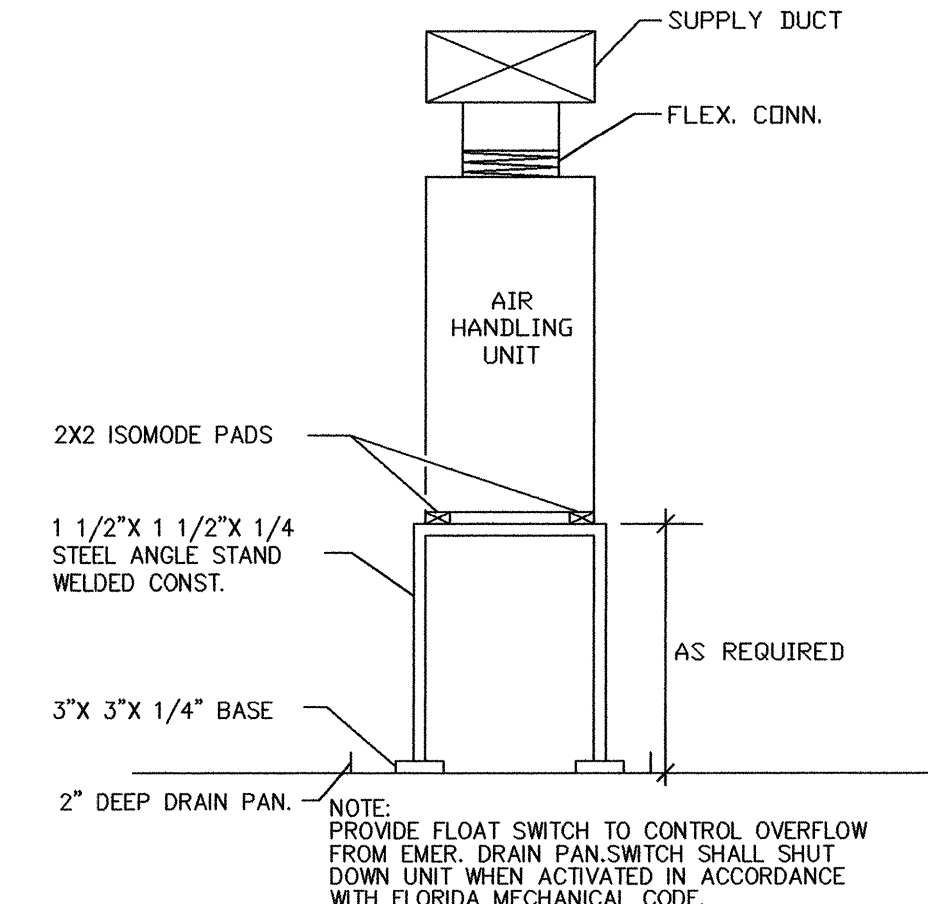
LOBBY: 321 S.F. X 10 PPL/1000 SF X 11 CFM/PPL. = 35 CFM

CFM REQUIRED = 35 CFM

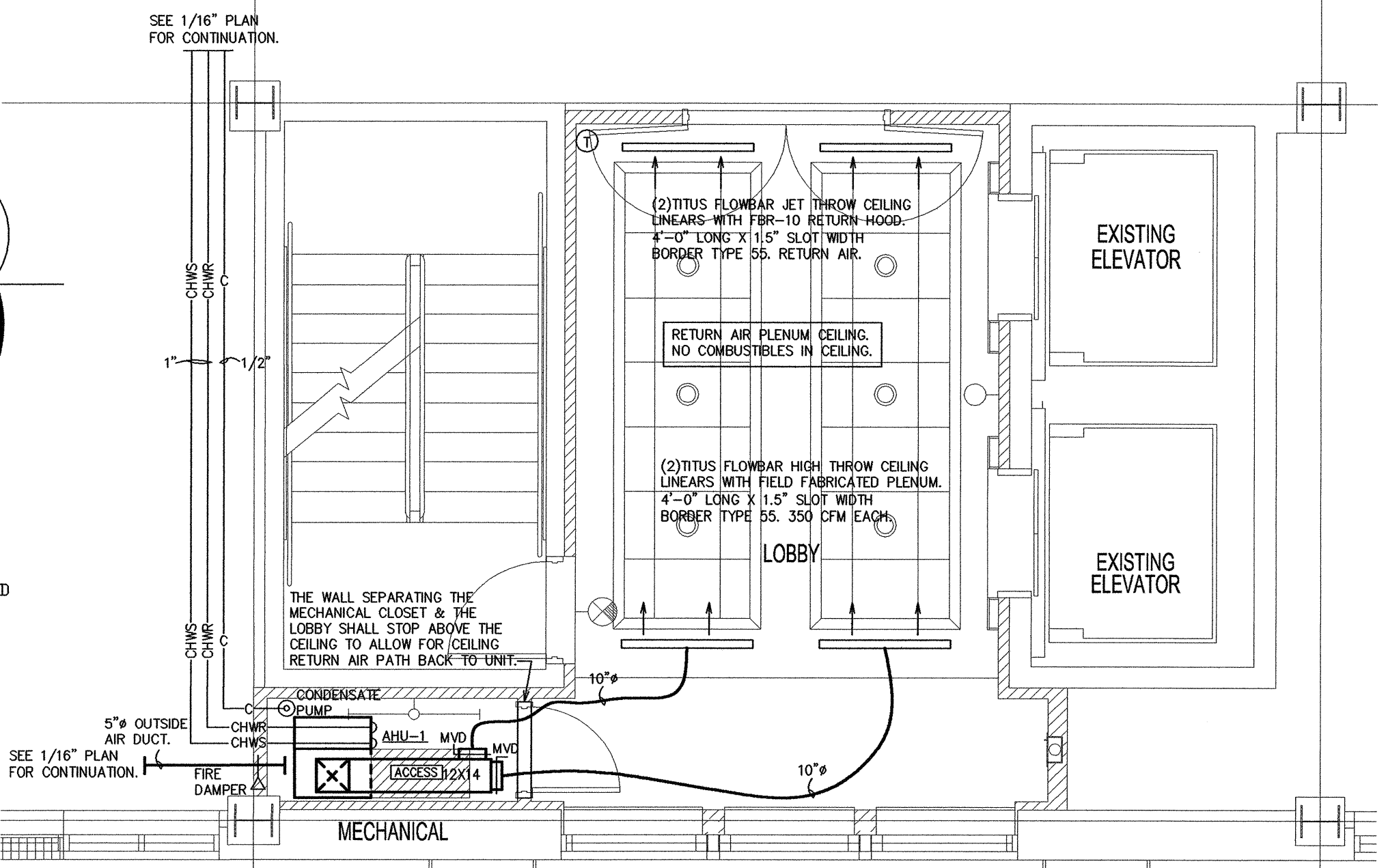
CFM SUPPLIED = 40 CFM



DUCT TAKE-OFF DETAIL - NTS



AHU DETAIL - NTS

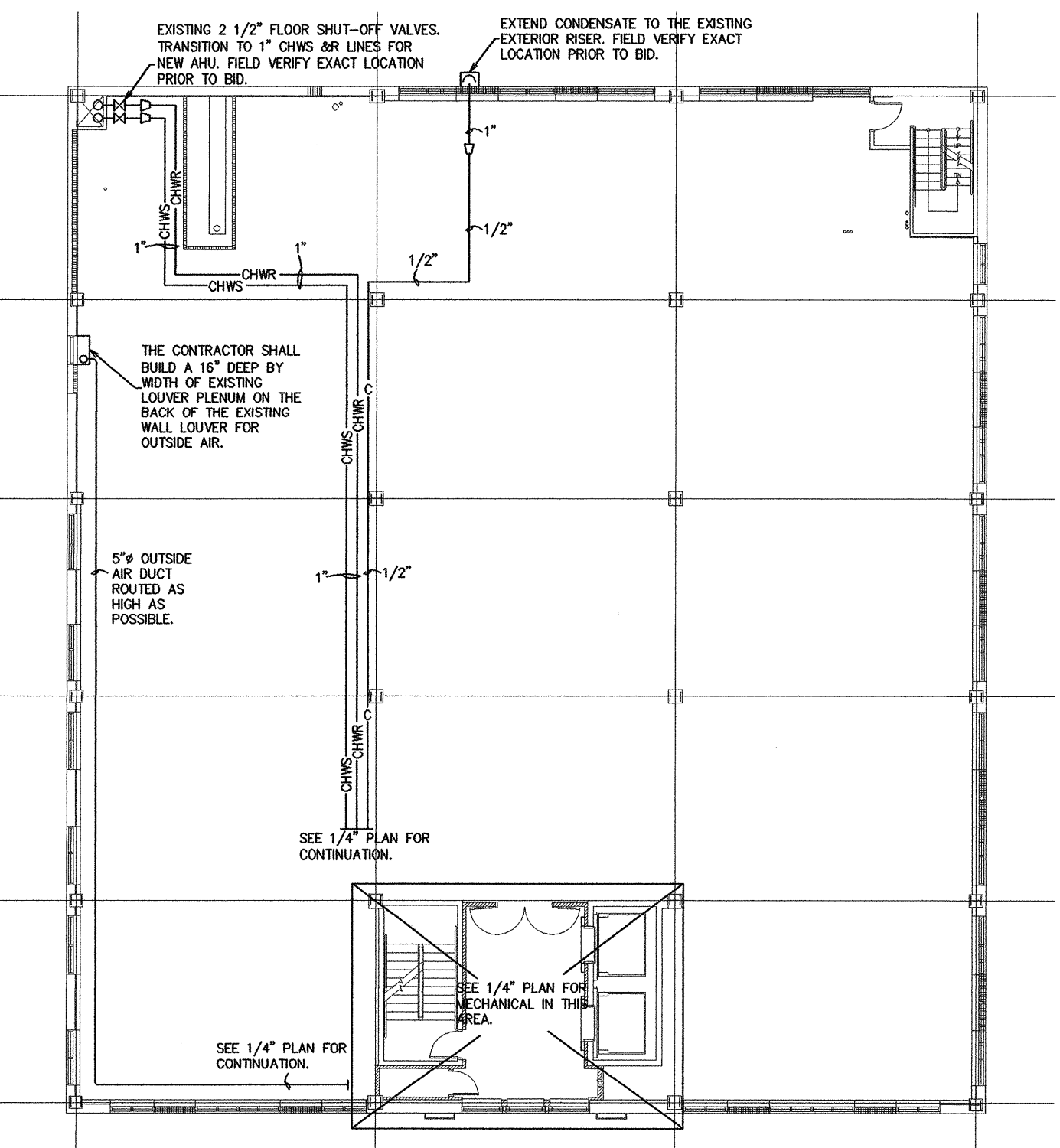


SPECIFIC NOTES: MECHANICAL PLAN

- THE CHILLED WATER AHU CONTROL
- THE BUILDING HAS AN EXISTING BUILDING AUTOMATION SYSTEM THAT THIS NEW UNIT SHALL BE CONNECTED TO. THE SYSTEM IS A ZONE X CENTER COMMAND CENTER. THE COMPATIBLE THERMOSTAT MADE BY ZONE-X IS A DIGIOM COMMUNICATING THERMOSTAT. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID & INCLUDE ALL COSTS ASSOCIATED WITH CONNECTING THIS UNIT & THERMOSTAT INTO THE EXISTING SYSTEM.
- THE SEQUENCE OF OPERATION SHALL BE AS FOLLOWS. THE AHU OCCUPIED/UNOCCUPIED SHALL BE BASED ON A TIME OF DAY SCHEDULE FROM THE CONTROLLER. ON A START COMMAND THE FAN SHALL START. ON A RISE IN SPACE TEMPERATURE ABOVE COOLING SETPOINT THE CHILLED WATER VALVE SHALL MODULATE OPEN. ON A FALL IN SPACE TEMPERATURE BELOW COOLING SETPOINT THE CHILLED WATER VALVE SHALL CLOSE. ON A FURTHER DROP IN SPACE TEMPERATURE BELOW HEATING SETPOINT THE ELECTRIC HEAT SHALL BE ENERGIZED AS REQUIRED TO MAINTAIN SPACE TEMPERATURE. ON A SIGNAL FROM THE FIRE ALARM SYSTEM THE FAN SHALL STOP & THE CONTROL SYSTEM DE-ENERGIZED.
- THE CONTRACTOR SHALL PROTECT ALL PENETRATIONS OF FIRE RATED PARTITIONS WITH APPROPRIATE UL METHOD. SEE ARCHITECTURAL PLAN FOR LOCATIONS OF FIRE RATED PARTITIONS.

PARTIAL 3RD FLOOR PLAN - LOBBY MECHANICAL

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



OVERALL 3RD FLOOR PLAN - MECHANICAL

SCALE: 1/16" = 1'-0"



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commission 210043
date: 2-14-11
revision date
no.

drawing **M1.1**
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