

PIPING SYMBOLS

- BBO BOILER BLOW-OFF
- FOS FUEL OIL SUPPLY
- FOR FUEL OIL RETURN
- FV FUEL OIL VENT
- FGV NATURAL GAS
- F & T TRAP
- BUCKET TRAP
- TR THERMOSTATIC TRAP
- CCA CONTROL COMPRESSED AIR
- RL REFRIGERANT LIQUID
- RD REFRIGERANT DISCHARGE
- RS REFRIGERANT SUCTION
- RV REFRIGERANT VENT
- CWS CHILLED WATER SUPPLY
- CWR CHILLED WATER RETURN
- PCHS PRIMARY CHILLED WATER SUPPLY
- PCHR PRIMARY CHILLED WATER RETURN
- SCHS SECONDARY CHILLED WATER SUPPLY
- SCHR SECONDARY CHILLED WATER RETURN
- CDWS CONDENSER WATER SUPPLY
- CDWR CONDENSER WATER RETURN
- BV BALANCE VALVE
- CV CHECK VALVE
- SOV SHUT-OFF VALVE NORMALLY OPEN
- GV GLOBE VALVE
- FLV FLOAT OPERATED VALVE
- MOV MOTOR OPERATED VALVE
- PRV PRESSURE REDUCING VALVE
- 2CV 2-WAY CONTROL VALVE
- 3CV 3-WAY CONTROL VALVE
- AV ANGLE VALVE
- T&P TEMP. & PRESS. RELIEF VALVE
- PRV PRESS. RELIEF VALVE
- PLV PLUG VALVE
- VV VALVE IN VERTICAL LINE
- ANCHOR
- TM THERMOMETER
- TMW THERMOMETER WALL
- PWG PRESSURE GAUGE WITH GAUGE COCK
- SIGHT GLASS
- AAV AUTOMATIC AIR VENT
- MAV MANUAL AIR VALVE
- STR STRAINER
- TEMP. POINT TEMPERATURE POINT
- ELBOW - 90 DEG.
- ELBOW - 45 DEG.
- ELBOW - TURNED UP
- ELBOW - TURNED DOWN
- PIPE RISER
- PIPE SLOPE DOWN
- CROSS
- LATERAL
- TEE
- TEE - OUTLET UP
- TEE - OUTLET DOWN
- EXPANSION JOINT
- CAP
- PLUG
- UNION
- BUTTERFLY VALVE
- GAUGE COCK
- VENTURI FLOW MEASUREMENT DEVICE
- AIR PRESSURE SWITCHED
- BALL VALVE
- SHUT-OFF VALVE NORMALLY CLOSED
- PIPE GUIDE
- DIRECTION OF FLOW
- FLEXIBLE PIPE CONNECTIONS
- PRESSURE TEMPERATURE
- COMBINED SMOKE DAMPER

HVAC SYMBOLS

- DUCT UNDER POSITIVE PRESSURE
- DUCT UNDER NEGATIVE PRESSURE
- NEW DUCTWORK
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN
- RETURN DUCT UP
- RETURN DUCT DOWN
- RECTANGULAR DUCT 90 DEG ELBOW WITH TURNING VANES
- RECTANGULAR DUCT 45 DEG ELBOW WITH TURNING VANES
- RECTANGULAR DUCT TRANSITION 1 SIDES SLOPED
- RECTANGULAR DUCT TRANSITION 2 SIDES SLOPED
- DUCT WITH FLEXIBLE CONNECTION
- RECTANGULAR DUCT TEE WITH SPLITTER DAMPER AND TURNING VANES
- MAIN DUCT
- BRANCH DUCT
- DUCT RISE
- DUCT DROP
- DUCT WITH MANUAL DAMPER
- DUCT WITH FIRE DAMPER
- DUCT WITH SMOKE DAMPER
- DUCT WITH SMOKE DETECTOR
- DUCT WITH ACCESS DOOR
- RECTANGULAR DUCT TO ROUND DUCT
- ROUND DUCTWORK
- ROUND DUCT WITH ELBOW
- ROUND DUCT UP
- ROUND DUCT DOWN
- MAIN DUCT
- SPIN-IN FITTING
- BRANCH DUCT
- RETURN OR EXHAUST GRILLE OR REGISTER
- DIFFUSER SEE SCHEDULE FOR SIZE 4-WAY
- DIFFUSER SEE SCHEDULE FOR SIZE 1-WAY
- DIFFUSER SEE SCHEDULE FOR SIZE 2-WAY
- DIFFUSER SEE SCHEDULE FOR SIZE 3-WAY
- HUMIDISTAT
- TEMPERATURE SENSOR (T-STAT)
- PRESSURE SENSOR
- MOTORIZED CONTROL DAMPER (MCD)
- MOTORIZED BACK DRAFT DAMPER (LOW LEAKAGE)
- UNDER CUT DOOR MIN. 1/2"
- TIE-IN / POINT OF CONNECTION

DETAIL CROSS REFERENCES

SECTION IDENTIFICATION LETTER
A

DWG. NUMBER ON WHICH SECTION DRAWN
M101

DWG. NUMBER ON WHICH SECTION TAKEN
M501

SECTION IDENTIFICATION LETTER
A

SECTION
SECTION

DWG. NUMBER ON WHICH SECTION DRAWN
M101

DWG. NUMBER ON WHICH SECTION TAKEN
M501

SECTION SYMBOL

SECTION IDENTIFICATION LETTER
1

DWG. NUMBER ON WHICH SECTION DRAWN
M101

DWG. NUMBER ON WHICH SECTION TAKEN
M501

SECTION IDENTIFICATION LETTER
1

SECTION
SECTION

DWG. NUMBER ON WHICH SECTION DRAWN
M101

DWG. NUMBER ON WHICH SECTION TAKEN
M501

DETAIL SYMBOL

DESIGN INDOOR TEMPERATURE CRITERIA

SPACE	HEATING (DB)	COOLING (DB)
OFFICE AREA	68°F +/- 4°F	72°F +/- 4°F

DESIGN OUTDOOR TEMPERATURE CRITERIA

	HEATING	COOLING
	99.6%	1%

AIR BALANCE SCHEDULE

EXHAUST (CFM)	OUTSIDE AIR (CFM)
0	305
TOTAL EXH.	TOTAL OA

2013 ASHRAE FUNDAMENTALS CLIMATIC DESIGN CONDITIONS NEW ORLEANS, LA

ABBREVIATIONS

ABOVE	dB DECIBEL	FT FEET
ACC AIR COOLED CHILLER	DG DOOR GRILLE	GPM GALLONS PER MINUTE
AD AIR DEVICE	DN DOWN	HC HEATING COIL
AFF ABOVE FINISHED FLOOR	DWG DRAWING	HWR HOT WATER RETURN
AFR ABOVE FINISHED ROOF	EA EACH	HWS HOT WATER SUPPLY
AHU AIR HANDLING UNIT	EAH EXHAUST AIR	KW KILOWATT
AAV AUTOMATIC AIR VENT	EDB ENTERING DRY BULB TEMPERATURE	LAT LATENT
BDD BACKDRAFT DAMPER	EF EXHAUST FAN	LDB LEAVING DRY BULB TEMPERATURE
BHP BRAKE HORSEPOWER	ELEC ELECTRICAL	LWB LEAVING WET BULB TEMPERATURE
BTU BRITISH THERMAL UNIT	ESP EXTERNAL (OF UNIT) STATIC PRESSURE	LWT LEAVING WATER TEMPERATURE
BTUH BRITISH THERMAL UNIT PER HOUR	EWT ENTERING WATER TEMPERATURE	MAV MANUAL AIR VENT
CC COOLING COIL	EXH EXHAUST	MAX MAXIMUM
CFM CUBIC FEET PER MINUTE	F FILTER	MBH ONE THOUSAND BTUH
CWS CHILLED WATER RETURN	FA FREE AREA (IN SQUARE FEET)	MER MECHANICAL EQUIPMENT ROOM
CDWR CONDENSER WATER SUPPLY	FC FLEXIBLE CONNECTION	MFG MANUFACTURER
CLG CEILING	FCU FAN COIL UNIT	MHP MOTOR HORSEPOWER
CONC CONCRETE	FD FIRE DAMPER	MIN MINIMUM
CDS CONDENSER WATER SUPPLY	FPB FAN POWER BOX	NC NORMALLY CLOSED
CDR CONDENSER WATER RETURN	FSB COMBINATION FIRE AND SMOKE DAMPER	NIC NOT IN CONTRACT
CONT CONTINUATION	FH FEET HEAD	NO NORMALLY OPEN
		OA OUTSIDE AIR

- ### GENERAL NOTES:
- GENERAL MECHANICAL NOTES ARE TYPICAL FOR ALL DRAWINGS INCLUDED IN THE CONTRACT DOCUMENTS. REFER TO INDIVIDUAL DRAWINGS FOR ANY SPECIFIC NOTES.
 - MECHANICAL LAYOUTS ARE DIAGRAMMATICAL ONLY. EXACT LOCATIONS OF DUCTS, PIPES, AND EQUIPMENT SHALL BE GOVERNED BY THE DRAWINGS OF RELATED TRADES. CONTRACTOR SHALL COORDINATE LAYOUT OF ALL SYSTEMS INCLUDING ELECTRICAL, PLUMBING, FIRE PROTECTION, STRUCTURAL, ARCHITECTURAL AND ARCHITECTURAL TO MINIMIZE HVAC DUCTWORK AND PIPING OFFSETS.
 - UNLESS OTHERWISE NOTED, DUCTWORK DIMENSIONS SHOWN IN THE CONTRACT DOCUMENTS ARE INSIDE CLEAR.
 - IF NO SIZE IS SHOWN FOR DUCT SERVING DIFFUSER OR TERMINAL BOX, REFER TO DIFFUSER AND GRILLE SCHEDULE FOR BRANCH DUCT SIZE.
 - SIZE DUCT RUNOUTS BY THESE SCHEDULES UNLESS NOTED OTHERWISE ON PLANS.
 - PROVIDE FLANGED TYPE CEILING OUTLETS IN SPACES WITH DRYWALL, PLASTER, HARD CEILINGS, OR NON-LAY-IN GRID TYPE CEILINGS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
 - INSTALL TRANSITION PIECES FROM SUPPLY OUTLET OF EQUIPMENT TO DUCT SIZE INDICATED ON PLANS. CONSULT EQUIPMENT MANUFACTURER FOR OUTLET SIZE.
 - ALL DUCT ELBOWS, BENDS AND TEES SHALL BE PROVIDED WITH SINGLE THICKNESS TURNING VANES.
 - PROVIDE INTEGRAL OPPOSED BLADE VOLUME DAMPERS (OBD) FOR DIFFUSERS MOUNTED IN INACCESSIBLE CEILINGS (FOR AIR BALANCE). DO NOT INSTALL OBD'S FOR DIFFUSERS MOUNTED IN LAY-IN TYPE CEILINGS. PROVIDE REMOTE CONTROL BALANCING DAMPER WHERE DAMPERS ARE INACCESSIBLE (SHEET ROCK CEILING, ETC.).
 - PROVIDE AND INSTALL MANUAL VOLUME DAMPERS IN THE BRANCH DUCTS SERVING ALL LAY-IN & SURFACE MOUNT DIFFUSERS GRILLES AND REGISTERS FOR AIR BALANCE.
 - PROVIDE FLEX DUCT CONNECTIONS UPSTREAM AND DOWNSTREAM OF ALL AIR HANDLING ROTATING EQUIPMENT THAT IS NOT INTERNALLY ISOLATED. REFER TO EQUIPMENT MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
 - PROVIDE SOLID NEOPRENE ISOLATORS FOR ALL EQUIPMENT. CORK PAD IS NOT ALLOWED UNLESS UNIT IS INTERNALLY ISOLATED.
 - REFER TO PLUMBING DRAWINGS FOR FLOOR DRAIN LOCATIONS.
 - REFER TO HVAC SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - REFER TO ELECTRICAL AND PLUMBING DRAWINGS FOR COORDINATION WITH MECHANICAL DRAWINGS.
 - EQUIPMENT INSTALLATION AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG EQUIPMENT MANUFACTURERS. CONTRACTOR SHALL COORDINATE EQUIPMENT INSTALLATION AND SERVICE CLEARANCES BASED ON APPROVED EQUIPMENT SUBMITTAL DATA.
 - DO NOT BLOCK TUBE PULL, FILTER PULL, COIL PULL, VAV TERMINAL UNIT CONTROL BOX, SAFETY OR SERVICE CLEARANCE SPACE ON EQUIPMENT WITH PIPING, DUCTWORK, VALVES, ETC. FLANGED OR REMOVABLE SECTIONS MAY BE USED IN SOME INSTANCES WHERE TIGHT CLEARANCES EXIST (VERIFY WITH ARCHITECT IN SUCH CASES).
 - SEAL ALL WALLS, ROOF, AND FLOOR PENETRATIONS SMOKE TIGHT AS REQUIRED.
 - PROVIDE ESCUTCHEONS AT ALL EXPOSED LOCATIONS WHERE PIPE PENETRATES WALL.
 - SEE DETAILS ON SHEETS FOR BRANCH TAKE-OFF REQUIREMENTS FOR LOW PRESSURE SUPPLY AND RETURN TAPS (SHOWN ON DRAWINGS AS SILENT LINE BRANCH TAKE-OFFS FROM MAIN) AND BRANCH RUNOUT TO TERMINAL BOX.
 - WHERE CONCEALED BY INACCESSIBLE FINISHES, PROVIDE ACCESS DOORS TO ALL VAV TERMINALS, VALVES, DUCT STATIC PRESSURE SENSORS, MANUAL VOLUME DAMPERS, FIRE DAMPERS, FIRE/SMOKE CONTROLS, AIR VENTS, DRAIN CONNECTIONS & ALL OTHER ITEMS REQUIRING PERMANENT MAINTENANCE OPERATION OR ADJUSTMENT. ACCESS DOORS ARE TO BE SIZED & LOCATED FOR EASY PERFORMANCE OF THE FUNCTION INTENDED. COORDINATE LOCATION OF ACCESS DOORS WITH FINISHES AFFECTED BY ACCESS DOORS FOR WALLS, CEILING AND FLOORS, BOTH STANDARD AND FIRE RATED ARE SPECIFIED IN DIVISION 8 SPECIFICATIONS.
 - ALL ACCESS DOORS SHALL BE PROVIDED WITH 1"x3" TAG DESCRIBING EQUIPMENT CONCEALED.
 - ALL FIRE DAMPERS SHALL BE DYNAMIC "B" TYPE. PROVIDE FACTORY SUPPLIED SLEEVE AND BRANCHWAY CONNECTOR.
 - UNLESS OTHERWISE NOTED, SUPPLY, RETURN, EXHAUST AIR HANDLING DUCTWORK CONSTRUCTION SHALL BE 18 GA. WELDED STAINLESS STEEL. EXHAUST DUCTWORK SHALL BE 18 GA. WELDED STAINLESS STEEL.
 - UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE AN INDEPENDENT COMPANY TEST AND BALANCE ALL AIR AND WATER SYSTEMS. REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL TEST AND BALANCE REQUIREMENTS.
 - SEAL ALL DUCT SEAMS, JOINTS AND CONNECTIONS INCLUDING PITTSBURGH, PENNSYLVANIA SHARDCAST 321 OR PRIOR APPROVED EQUAL.
 - EXTERNALLY INSULATE SUPPLY, RETURN, AND OUTLET DUCTWORK WITH 1" R-6 FOIL FACED INSULATION. FLEXIBLE DUCTS SHALL BE MIN. R-6 INSULATION. R-VALUE REFERS TO THE INSTALLED THICKNESS. ALL DUCT INSULATION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
 - FLEXIBLE DUCTS SHALL BE USED ONLY FOR BRANCH RUNOUTS (MAX. 6 FT.) AND FOR INLETS FOR VAV TERMINAL UNITS (MAX. 3 FT.). THERMAFLEX G-KM OR ATCO 30 SERIES. PROVIDE INDIVIDUAL BANDS FOR BOTH INNER LINER AND OUTER LINER.
 - CONTRACTOR SHALL VERIFY ALL ADOPTED STATE AND LOCAL CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: INTERNATIONAL MECHANICAL CODE 2009, NFPA, CITY ADOPTED AMENDMENTS, LIFE SAFETY CODE, LOUISIANA STATE ENERGY NEUTRALITY ACT, ASHRAE, SMACNA, UL, LOUISIANA STATE PLUMBING CODE 2008 NEC, ETC.
 - FOR DOMESTIC HOT AND COLD WATER PROVIDE FACTORY-FORMED FIBERGLASS PIPE INSULATED FACTORY-JACKETED OWENS-CORNING 25 ASJ HEAVY DENSITY OR KNAUF EARTHWOOL 1000, ONE-PIECE, DUAL TEMPERATURE, PRE-MOLDED INSULATION. INSULATE ALL VALVES, FITTINGS AND FLANGES WITH 3-POUND DENSITY FIBERGLASS INSULATION TO A THICKNESS EQUAL TO THE ADJACENT PIPING INSULATION AND MAINTAINED WITH PRE-MOLDED 2 1/2" PVC FITTING AND SEALS WITH CHILLERS CP-90 VAPOR BARRIER MASTIC OR FOSTER 30-90 VAPOR-SAFE MASTIC. INSULATION SHALL BE 1" THICK.
 - CHILLED WATER PIPING, VALVES AND FITTINGS SHALL BE INSULATED WITH CELLULAR GLASS, ASTM C552, TYPE II, CLASS 2. NO SUBSTITUTES WILL BE CONSIDERED. INSULATION SHALL BE A MINIMUM OF 1.5 INCHES THICK FOR PIPING 2 INCHES OR SMALLER. INSULATION SHALL BE 2 INCHES THICK FOR PIPE SIZES 2.5 INCHES TO 4 INCHES, AND 3 INCHES THICK FOR PIPING 6 INCHES AND LARGER. PROVIDE A FACTORY-APPLIED, ALL-PURPOSE JACKET. COVER ALL CHILLED WATER PIPE INSULATION WITH 1/2" THICK PVC INSULATION. VALVES, FITTINGS AND ALL MISCELLANEOUS DEVICES WITH 0.030" THICK PVC JACKET AND PRE-MOLDED PVC FITTINGS SECURED PER MANUFACTURER'S RECOMMENDATIONS.
 - EQUIPMENT SHALL HAVE A METAL NAMEPLATE BEARING THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER SECURELY AFFIXED IN AN ACCESSIBLE LOCATION, THE NAMEPLATE OF THE LOCAL EQUIPMENT DISTRIBUTOR WILL NOT BE ACCEPTABLE. PROVIDE LABELS FOR FILTER SECTIONS THAT INCLUDE FILTER SIZES, QUANTITIES AND MINIMUM EFFICIENCY INFORMATION.
 - EQUIPMENT SHALL BE VALUED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS AND SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT IN THE AREA WHERE WORK IS DONE.
 - ALL MOUNTED EQUIPMENT SHALL HAVE MIN. 4" HIGH HOUSEKEEPING PADS. HOUSEKEEPING PADS SHALL EXTEND A MINIMUM OF 2 INCHES BEYOND EQUIPMENT FOOTPRINT.
 - ALL PENETRATING CONCRETE/MASONRY WALLS, FLOORS AND CEILING/ROOFS SHALL HAVE SCHEDULE 40 STEEL SLEEVES. SLEEVES SHALL BE LARGE ENOUGH TO ACCOMMODATE ALL PIPING INSULATION THICKNESS.
 - ALL MOUNTED VOLUME DAMPERS SHALL BE RUSKIN CDS0, GREENHECK VCD 23 OR PRIOR APPROVED EQUAL. PROVIDE ALL JAMB AND BLADE SEALS.
 - AIR HANDLING UNIT DISCHARGE AND RETURN AIR OPENINGS SHALL BE CLEAR OF ANY OBSTRUCTIONS DUE TO LINED DUCT INSULATION OR FLANGE CONNECTIONS TO AVOID RESTRICTIONS TO THE FREE FLOW OF AIR FROM THE FAN.
 - INSTALL HIGH POINT MANUAL AIR VENTS FOR ALL CHILLED AND HEATING HOT WATER PIPING SYSTEMS, AS REQUIRED, TO FACILITATE MANUAL AIR VENTING.
 - DUCTWORK AND PIPING SHALL NOT BE INSTALLED OVER ELECTRICAL PANELS OR THROUGH ELECTRICAL ROOMS. WHERE HYDRONIC PIPING AND ELECTRICAL CONDUIT ARE LOCATED ON TOP OF EACH OTHER, THE ELECTRICAL CONDUIT SHALL ALWAYS BE LOCATED ON TOP OF THE HYDRONIC PIPING.
 - PROVIDE FULL SIZE CONDENSATE LINE TO FLOOR/DRAIN. ELEVATE UNIT TO ACCOMMODATE P-TRAP. PIPE SHALL NOT POSE A TRIPPING HAZARD.
 - 18 GA. S.S. ALL WELDED EMERGENCY DRAIN PAN FOR ALL AIR HANDLING UNITS, BLOWER COIL UNITS, ETC. SIDES SHALL BE MIN. 2" WITH 1/2" HEAM. PAN SHALL EXTEND 6" BEYOND ALL SIDES OF UNIT AND COIL PIPING CONNECTIONS. PROVIDE MIN. 1" CONDENSATE LINE TO FLOOR DRAIN. PIPE SHALL NOT POSE A TRIPPING HAZARD.
 - ALL VENDOR FURNISHED CONTROLS SHALL BE INSTALLED, WIRED & ADJUSTED BY THE CONTRACTOR.
 - ALL EQUIPMENT AND DEVICES SHALL BE FURNISHED AND INSTALLED AS REQUIRED BY THE CONTRACT DRAWINGS, SPECIFICATIONS AND PER MANUFACTURER'S RECOMMENDATIONS.
 - ALL SAFETY RELIEF VENT SIZING REQUIREMENTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER. CONTRACTOR SHALL SUBMIT CALCULATIONS FOR ALL SYSTEMS AND/OR EQUIPMENT REQUIRING SAFETY RELIEF VENTS, INCLUDING BUT NOT LIMITED TO CHILLER, BOILER, PRESSURE TANKS, ETC.
 - UNLESS OTHERWISE NOTED, ALL FLOOR MOUNTED ROTATING EQUIPMENT THAT IS NOT INTERNALLY ISOLATED INCLUDING, BUT NOT LIMITED TO, CENTRIFUGAL PUMPS, AIR COMPRESSORS, CHILLERS, ETC. SHALL BE MOUNTED ON A CONCRETE FILLED ISOLATION/BASE RAIL WITH INBOARD SPRINGS WITH A MINIMUM OF 2" DEFLECTION.
 - ROUND DUCT FOR SUPPLY AIR, RETURN AIR, OUTSIDE AIR, EXHAUST AND COMBUSTION AIR INTAKE SHALL BE SPIRAL DUCT. GREASE AND LAUNDRY DRYER EXHAUST DUCT SHALL BE EXCLUDED FROM THIS REQUIREMENT.
 - ALL EQUIPMENT SHALL HAVE LOW POINT DRAINS AS REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS TO THE ARCHITECT FOR REVIEW PRIOR TO ANY FABRICATION OR EQUIPMENT/MATERIAL ORDER. SUBMITTING SHOP DRAWINGS AND EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL IMPLIES THAT FULL COORDINATION WITH OTHER TRADES AND OPERATIONS HAS BEEN CONDUCTED BY THE CONTRACTOR. THIS COORDINATION PROCESS SHALL BE INCLUDED IN THE PROJECT CONSTRUCTION SCHEDULE TO AVOID DELAYS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY UNRESOLVED ISSUES BY THE ENGINEER'S REVIEW.
 - CONTRACTOR SHALL PROVIDE REQUIRED EQUIPMENT SERVICE CLEARANCES AS RECOMMENDED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE APPLICABLE CODES. THE CONTRACTOR SHALL INFORM THE ARCHITECT IF THE DESIGN DOES NOT ALLOW FOR PROVIDING THE REQUIRED CLEARANCES.
 - BUILDING MANAGEMENT SYSTEM SHALL BE NETWORK BASED.
 - INSTALL ALL HYDRONIC PIPING AS HIGH AS POSSIBLE.
 - CONTRACTOR SHALL MAINTAIN ALL HVAC SYSTEMS CLEAN DURING CONSTRUCTION USING INDUSTRY STANDARD METHODS. EQUIPMENT, DUCTWORK, PIPING, CONTROLS AND ASSOCIATED ACCESSORIES THAT ARE ALLOWED TO GET DIRTY OR DAMAGED WITH CONSTRUCTION DEBRIS SHALL BE CLEANED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
 - ALL PIPE, DUCT, CONDUIT, EQUIPMENT, ETC., THAT IS ANCHORED AND/OR SUSPENDED FROM A CONCRETE SLAB SHALL USE CAST IN PLACE INSERTS. PROVIDE ALL NECESSARY BRACKETS, PLATE, HARDWARE ETC., CONTRACTOR SHALL USE SONAR AND/OR X-RAY SCANNING IF ANY INSERTS ARE TO BE INSTALLED AFTER THE CONCRETE SLAB IS POURED. REFER TO DIVISION 15 AND COORDINATE WITH ALL TRADES.
 - COORDINATE DUCT AND PIPING ROUTING WITH WALL FRAMING. WALL FRAMING MAY REQUIRE ADDITIONAL STRUCTURAL SUPPORTS TO ALLOW DUCTWORK/PIPING ROUTING. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS.
 - ALL GENERAL EXHAUST MANUAL BALANCING DAMPERS SHALL BE LOW LEAKAGE TYPE. NAILOR MODEL 1090 OR APPROVED EQUAL.
 - DRYER VENT DUCT SHALL BE 18GA S.S. WELDED. PROVIDE TEE WITH ACCESS AT BASE.
 - ALL BOILER FLUE VENT SHALL BE DOUBLE WALL 41-29-44 CATEGORY 4 VENTING.
 - PROVIDE DUCT ACCESS PANELS FOR ALL FIRE/SMOKE DAMPERS, FIRE DAMPERS, ETC. COORDINATE LOCATION WITH ARCHITECTURAL.
 - VAV'S SHALL BE WITHIN 24" FROM CEILING ACCESS.
 - COORDINATE WITH ARCHITECTURAL CEILING PLAN FOR CEILING SYSTEM AND LOCATION ALL GRILLES AND DIFFUSERS. INSULATE AND SEAL THE BACK OF GRILLES TO PREVENT CONDENSATION. PROVIDE 10" MIN. HEIGHT FOR THE PLENUM, TRANSITION OR TAP OF ANY GRILLED CONNECTION.

THIS IS A TYPICAL SHEET, ALL ABBREVIATIONS, SYMBOLS AND NOTES ARE NOT NECESSARILY IN USE ON THIS PROJECT.

NANO ARCHITECTURE

RESEARCH • INTERIORS • RESTAURANTS

REV.	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

CONTRACT 8155

ELECTRICAL STORAGE ROOM OFFICE RENOVATION

HVAC GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

M1.0

DWG. No. 12148-W-60

DATE: 15 NOVEMBER 2017 SET NO: BID DOCUMENTS SHEET NO:

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