

ABBREVIATIONS

A -----	AMPERES, AIR (COMPRESSED)	G -----	NATURAL GAS, GROUND	P -----	POLE
A/C	AIR CONDITION	GC	GENERAL CONTRACTOR	PBX	PRIVATE BRANCH EXCHANGE
A/E	ARCHITECT/ENGINEER	GE	GROUNDING EQUALIZER	PCR	PUMPED CONDENSATE RETURN
ACC	AIR COOLED CHILLER	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	PDI	PLUMBING DRAINAGE INSTITUTE
ACCU	AIR COOLED CONDENSING UNIT	GFRG	GROUND FAULT RELAY	PH	PHASE
ADA	AMERICANS WITH DISABILITIES ACT	GND	GROUND FIBER-REINFORCED GYPSUM	PIV	POST INDICATOR VALVE
AF	AMPERE FUSE	GPM	GROUND	PNL	PANEL
AFI	ABOVE FINISHED CEILING	GPM	GALLONS PER MINUTE	PNLBD	PANELBOARD
AFCI	ARC FAULT CIRCUIT INTERRUPTER	GSP	GLASS-CLAY RIGID STEEL	POT	POWER OVER ETHERNET
AFF	AREA OF EVACUATION ASSISTANCE	GYP	GYPSUM BOARD	POTS	STANDARD ANALOG TELEPHONE LINE PROVIDE
AFG	ABOVE FINISHED FLOOR			PRV	FURNISH AND INSTALL
AHJ	ABOVE FINISHED GRADE	H -----		PSI	PRESSURE REDUCING VALVE
AHU	AUTHORITY HAVING JURISDICTION	HC	HORIZONTAL CROSS-CONNECT	PSN	POUNDS PER SQUARE INCH
AI	AIR HANDLING UNIT	HD	HEAD, HUB DRAIN	PT	PUBLIC SWITCHED TELEPHONE NETWORK
AT	ANALOG INPUT	HOA	HAND-OFF-AUTOMATIC	PTD	POTENTIAL TRANSFORMER
ATC	AMPERE INTERRUPTING CIRCUIT	HTR	HEATER	PTZ	PAN, TILT, ZOOM
AL	ALUMINUM	HVU	HEATING AND VENTILATING UNIT	PVC	POLYVINYL CHLORIDE
AO	ANALOG OUTPUT	HWP	HEATING WATER PUMP		
AP	ACCESS PANEL, ACCESS POINT	HZ	HERTZ	Q -----	QUANTITY
APPROX	APPROXIMATE			QTY	
AR	AS REQUIRED				
ARCH	ARCHITECT	I -----		R -----	
ATL	ACROSS-THE-LINE	IE	INTERMEDIATE CROSS-CONNECT	RA	RETURN AIR
ATS	AUTOMATIC TRANSFER SWITCH	IG	INVERT ELEVATION	RC	ROOM CRITERIA
AV	AUDIO VISUAL	IMC	INSULATED GROUND	RCP	REINFORCED CONCRETE PIPE
AWG	AMERICAN WIRE GAUGE	IN W	INTERMEDIATE METAL CONDUIT	RCPT	RECEPTACLE
		IP	INCHES OF WATER COLUMN	REV	REVISION
B -----		ISC	INTERNET PROTOCOL	RF	RETURN FAN
B	BOILER	ISDN	SHORT CIRCUIT CURRENT	RH	RELATIVE HUMIDITY, ROOF HOOD
BAS	BUILDING AUTOMATION SYSTEM	ISP	INTEGRATED SERVICES DIGITAL NETWORK	RMG	REFRIGERANT HOT GAS
BD	BACKDRAFT DAMPER, BLOWDOWN, BUILDING DISTRIBUTOR		INTERNET SERVICE PROVIDER, INSIDE PLANT CABLE	RLA	RUNNING LOAD AMPS
BDF	BUILDING DISTRIBUTION FRAME	J -----		RMC	RIGID METAL CONDUIT
BFF	BELOW FINISHED FLOOR	J	JUNCTION BOX	RPM	REVOLUTIONS PER MINUTE
BFG	BELOW FINISHED GRADE	J-BOX	JUNCTION BOX	RTU	ROOFTOP UNIT
BIT	BINARY INPUT	K -----		RU	RACK UNIT
BKR	BLOCKED PUMP	KCMIL	1000 CIRCULAR MILS	S -----	
BLDG	BUILDING	KC	KIRK KEY	SA	SUPPLY AIR
BO	BINARY OUTPUT	KV	KILOVOLT	SATV	SYNCHRONOUS OPTICAL NETWORK
BOD	BOTTOM OF DUCT	KVA	KILOVOLT-AMPS	SCP	STEAM CONDENSATE PUMP
BOP	BOTTOM OF PIPE	KVAR	KILOVOLT-AMPS REACTIVE	SD	SMOKE DETECTOR
BOS	BOTTOM OF STRUCTURE	KW	KILOWATT	SEER	SEASONAL ENERGY EFFICIENCY RATIO
BTU	BRITISH THERMAL UNIT	KWH	KILOWATT-HOUR	SF	SQUARE FOOT (FEET), SUPPLY FAN
				SM	SIMILAR
C -----		L -----		SPDT	STATIC PRESSURE, SUMP PUMP
CAT	CONDUIT	L	LOUVER	SPST	SINGLE-POLE, DOUBLE-THROW
CATV	CATEGORY	LAN	LOCAL AREA NETWORK	SQ	SINGLE-POLE, SINGLE-THROW
CDV	CABLE TELEVISION SYSTEM	LAT	LEAVING AIR TEMPERATURE	SS	SQUARE
CCTV	CLOSED CIRCUIT TELEVISION	LCC	LIMITED COMBUSTIBLE CABLE	SS	STAINLESS STEEL, SANITARY SEWER, SOIL STACK
		LDB	LEAVING DRY BULB	ST	SHUNT TRAP, STEAM TRAP
CFM	CANDELA, CAMPUS DISTRIBUTOR, CONSTRUCTION DOCUMENTS	LEC	LEAVING WET BULB	STC	SOUND TRANSMISSION CLASS
CH	CUBIC FEET PER MINUTE	LF	LIGHT-EMITTING DIODE	STD	STANDARD
CHP	CHILLER	LP	LINEAR FEET (FOOT)	STM	STEAM
CI	CHILLED WATER PUMP	LRA	LOW PRESSURE	SWBD	SWITCHBOARD
CKT	CAST IRON	LWB	LOCKED ROTOR AMPS		
CMP	CIRCUIT	LWT	LEAVING WET BULB	T -----	
CMR	COMMUNICATIONS PLENUM CABLE	M -----		TBB	TELEVISION BONDING BACKBONE
CP	COMMUNICATIONS RISER CABLE	M-M	MULTIMODE	TBD	TO BE DETERMINED
CPT	CONTROL POWER TRANSFORMER	MAN	METROPOLITAN AREA NETWORK	TCC	TEMPERATURE CONTROLS CONTRACTOR
CPVC	CONTROL POLYVINYL CHLORIDE	MATV	MASTER ANTENNA TELEVISION SYSTEM	TDH	TOTAL DYNAMIC HEAD
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	MAU	MAKE-UP AIR UNIT	TEMP	TEMPORARY
CRU	COMPUTER ROOM UNIT	MAX	MAXIMUM	TFA	TO FLOOR ABOVE
CWP	COOLING TOWER PUMP	MC	MAIN CROSS-CONNECT	TFB	TO FLOOR BELOW
CU	COPPER, CONDENSING UNIT	MCA	MINIMUM CIRCUIT AMPACITY	TGB	TELECOMMUNICATIONS GROUND BUS BAR
CVD	CUMULATIVE VOLTAGE DROP	MCB	MAIN CIRCUIT BREAKER	TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
		MCC	MOTOR CONTROL CENTER	TL	TWIST LOCK
D -----		MD	MOTORIZED DAMPER	TMBG	TELECOMMUNICATIONS MAIN GROUND BUS BAR
DB	DECIBELS, DRY BULB	MDF	MAIN DISTRIBUTION FRAME	TN	TRUE NORTH
DDC	DIRECT DIGITAL CONTROL	MDP	MAIN DISTRIBUTION PANEL	TOD	TOP OF DUCT
DEMO	DEMOLITION	MFR	MANUFACTURER	TOP	TOP OF PIPE
DEPT	DEPARTMENT	MG	MOTOR GENERATOR	TOS	TOP OF SLAB
DET	DETAIL	MH	MAINTENANCE HOLE, MANHOLE	TR	TRAMPER RESISTANT, TELECOMMUNICATIONS ROOM
DFU	DIGITAL INPUT, DUCTILE IRON	MIN	MINIMUM	TT	TEMPERATURE TRANSMITTER
DIA	DIAMETER	MLO	MAIN LUGS ONLY	TSU	THROUGH WALL AIR CONDITIONING UNIT
DIR	DIRECTION	MOCP	MAXIMUM OVERCURRENT PROTECTION	TV	TELEVISION
DIST	DISTANCE	MPOE	MAIN POINT OF ENTRANCE	TX	TRANSFORMER
DN	DOWN	MPOP	MAIN POINT OF PRESENCE	TYP	TYPICAL
DOC	DOCUMENT	MSB	MAIN SWITCHBOARD	U -----	
DPDT	DOUBLE-POLE, DOUBLE-THROW	MSWB	MASTER SLAVE/TOKEN PASSING COMMUNICATION	U/F	UNDERFLOOR
DPI	DIFFERENTIAL PRESSURE INDICATOR	MTD	MOUNTED	U/G	UNDERGROUND
DPST	DOUBLE-POLE, SINGLE-THROW	MU	MAKE-UP	UIS	UNDERSLAB
DS	DOWNSPOUT, DUCT SILENCER	N -----		UH	UNIT HEATER
DX	DIRECT EXPANSION	N/A	NOT APPLICABLE	UNO	UNLESS NOTED OTHERWISE
		N/C	NORMALLY CLOSED	UPS	UNINTERRUPTIBLE POWER SUPPLY
E -----		N/O	NORMALLY OPEN	UTP	UNSHIELDED TWISTED PAIR
E	(EXISTING)	N	NORTH	V -----	
EAT	EXHAUST AIR	NC	NOISE CRITERIA	V	VOLTAGE (VOLTS)
EDB	ENTERING AIR TEMPERATURE	NEC	NATIONAL ELECTRICAL CODE	VAC	VOLTS ALTERNATING CURRENT
EER	ENTERING DRY BULB	NF	NATIONAL FIRE PROTECTION ASSOCIATION	VAV	VARIABLE AIR VOLUME
EFA	ENERGY EFFICIENCY RATIO	NFPA	NOT IN CONTRACT	VCP	VITRIFIED CLAY PIPE
EF	EXHAUST FAN	NIC	NIGHT LIGHT	VD	VOLTAGE DROP
EIA	ELECTRONIC INDUSTRIES ASSOCIATIONS	NO	NUMBER	VDC	VOLTS DIRECT CURRENT
EL	ELECTRIFIED LOCK OR LATCH, ELEVATION	NOM	NOMINAL	VFD	VARIABLE FREQUENCY DRIVE
EM	EMERGENCY	NM	NANO METER	VS	VENT STACK
EMI	ELECTROMAGNETIC INTERFERENCE	O -----		VTR	VENT THROUGH ROOF
EMS	ENERGY MANAGEMENT SYSTEM	OA	OUTSIDE AIR	W -----	
EPO	EMERGENCY POWER OFF	OC	ON CENTER	W/	WITH
ER	EQUIPMENT ROOM	ORD	OVERFLOW ROOF DRAIN	W/O	WITHOUT
ESFR	EARLY SUPPRESSION FAST RESPONSE	OS	OCCUPANCY SENSOR	W	WIRE
ETR	EXISTING TO REMAIN	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	WAN	WIDE AREA NETWORK
EWB	ENTERING WET BULB	OSP	OUTSIDE PLANT	WAP	WIRELESS ACCESS POINT
EWIC	ELECTRIC WATER COOLER			WB	WET BULB
EWT	ENTERING WATER TEMPERATURE			WC	WATER COLUMN
				WG	WATER GONG
F -----				WP	WEATHER PROOF COVER
FACP	FIRE ALARM CONTROL PANEL			WPD	WATER PRESSURE DROP
FBO	FURNISHED BY OTHERS/OWNER			WR	WEATHER RESISTANT
FCA	FAULT CURRENT AMPS			WS	WASTE STACK
FCU	FAN COIL UNIT			WSFU	WATER SUPPLY FIXTURE UNIT
FD	FLOOR DRAIN, FLOOR DISTRIBUTOR			WT	WATERTIGHT, WEIGHT
FFA	FROM FLOOR ABOVE			X -----	
FFB	FROM FLOOR BELOW			X	EXPLOSION-PROOF
FF	FINISHED FLOOR				
FHC	FIRE HOSE CABINET				
FL	FLOW LINE				
FLA	FULL LOAD AMPS				
FLR	FLOOR				
FU	FURNACE				
FVNR	FULL-VOLTAGE, NON-REVERSING				

MECHANICAL DEMOLITION NOTES

- THIS DRAWING DIAGRAMMATICALLY REPRESENTS THE LAYOUT OF EXISTING CONDITIONS WITH MAJOR MECHANICAL AND ELECTRICAL COMPONENTS. THEY ARE NOT INTENDED TO SHOW ACCESSORIES OR INCIDENTALS COMMON TO EQUIPMENT INDICATED. THROUGH THESE ITEMS ARE TO BE REMOVED, ACCESSIBILITY TO DEMOLITION ITEMS SHALL NOT BE INFERRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF BUILDING AND EXISTING CONDITIONS, PRIOR TO BID SUBMISSION.
- DEMOLITION SHALL INCLUDE ALL HANGERS, FITTINGS, DAMPERS, VALVES, ETC.
- REPAIR ANY INSULATION DAMAGED DURING REMOVAL. REPAIR WORK TO BE SAME AS NEW.
- COORDINATE WALL AND FLOOR PATCHING REQUIREMENTS WITH THE GENERAL CONTRACTOR. PATCHWORK SHALL MATCH MATERIALS, FINISH AND TEXTURE OF ADJACENT SURFACES. REFERENCE ARCHITECTURAL PLANS.
- CONTRACTOR SHALL PATCH/REPAIR ALL UNUSED OPENINGS AND MODIFIED FINISH SURFACES. PATCH SHALL MATCH MATERIALS, FINISH AND TEXTURE AND ADJACENT SURFACES.
- OWNER SHALL RETAIN FIRST SALVAGE RIGHTS TO ALL REMOVED EQUIPMENT AND MATERIALS. UNLESS NOTED OTHERWISE, CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER AND TIMELY DISPOSAL OF ALL CONSTRUCTION DEBRIS INCLUDING BUT NOT LIMITED TO EQUIPMENT AND MATERIALS NOT CLAIMED BY OWNER TO AN EPA APPROVED, ENVIRONMENTALLY RESPONSIBLE, RECYCLE FACILITY OR LANDFILL.
- IT IS ESSENTIAL TO MINIMIZE DISRUPTIONS. COORDINATE ALL DEMOLITION WITH OWNER, GENERAL CONTRACTOR OR CONSTRUCTION MANAGER BEFORE SHUTTING DOWN ANY UTILITY OR SIMILAR SYSTEM. SHUTDOWNS FOR UTILITIES OR SIMILAR SYSTEMS SHALL BE REQUESTED WELL IN ADVANCE AND PRE-APPROVED BY THE PROPER AUTHORITY (S) HAVING JURISDICTION BEFORE BEGINNING WORK.
- ALL WORK WITHIN THE CONTRACT DOCUMENTS, WHICH INCLUDE THIS DRAWING, SHALL BE COMPLETED IN A SAFE WORKMANLIKE MANNER AND IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND NATIONAL CODES, REGULATIONS AND ORDINANCES. IF ANY CONFLICTS ARISE BETWEEN THE CONTRACT DOCUMENTS AND THE APPLICABLE CODE, REGULATIONS OR ORDINANCE, THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL WORK CONFORM TO THE STRICTER OF SAID REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS AS REQUIRED FOR ELECTRICAL, FIRE PROTECTION, PLUMBING, MECHANICAL AND BACKFLOW PREVENTION INSTALLATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE BOTH A COMPLETE AND COMPLIANT INSTALLATION AS MAY BE DETERMINED BY THE AUTHORITY (S) HAVING JURISDICTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE WATERTIGHT AND WEATHER-PROOF INTEGRITY OF ROOFS, WALLS AND FLOORS DURING CONSTRUCTION. EACH TRADE SHALL LOCATE/DIMENSION/COORDINATE THEIR ROOF, FLOOR AND WALL OPENINGS WITH THE GC OR CONSTRUCTION MANAGER.

STANDARD MOUNTING HEIGHTS

(AFF, AFG, UNLESS NOTED OTHERWISE)

THERMOSTATS (USER ADJUSTABLE)(TOP OF DEVICE)	48"
CONTROLS (TOP OF DEVICE)	48"

MECHANICAL GENERAL NOTES

- ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF DUCT CONNECTIONS OF DUCTWORK, PIPING, AND EQUIPMENT. DO NOT SCALE DRAWINGS. THE EXACT LOCATION AND ROUTING OF EQUIPMENT DUCTWORK PIPING ETC. UNLESS SPECIFICALLY DIMENSIONED ON THE DRAWINGS, SHALL BE DETERMINED IN THE FIELD. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, OR COMPONENT. MAKE REASONABLE MODIFICATIONS IN THE INSTALLATION SO ALL DUCTWORK AND PIPING FITS PROPERLY AND EQUIPMENT CAN BE SERVICED.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS. THEY SHALL BE INSTALLED PLUMB LEVEL AND TRUE-TO-LINE WITH ADJACENT WORK WHERE INSTALLATION METHODS ARE NOT SPECIFICALLY COVERED BY THE DRAWINGS AND/OR SPECIFICATIONS. FIRST CLASS TRADE PRACTICES AND MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS SHALL GOVERN.
- CAREFULLY EXAMINE ALL ARCHITECTURAL, STRUCTURAL, PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL DRAWINGS PERTAINING TO CONSTRUCTION PRIOR TO BID. COOPERATE WITH OTHER TRADES IN LOCATING DUCTWORK, PIPING, EQUIPMENT, ETC. IN ORDER TO AVOID CONFLICT WITH OTHER TRADES' WORK. NO CLAIM FOR COSTS WILL BE ALLOWED FOR RELOCATING EQUIPMENT, PIPING, DUCTWORK, ETC. WHICH INTERFERES WITH OTHER TRADES' WORK.
- HVAC EQUIPMENT, DUCTS AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION, BUILDING DEPARTMENTS, APPLICABLE TO THE LATEST EDITION OF THE APPROVED BUILDING CODES, APPLICABLE OSHA AND NFPA STANDARDS, COUNTRY AND CITY BUILDING REGULATIONS AND CODES.
- FABRICATION AND INSTALLATION OF DUCTWORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MECHANICAL STANDARDS, STATE MECHANICAL CODE AND APPLICABLE NFPA STANDARDS.
- ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- PROVIDE AIR TURNING VANES IN ALL SQUARE ELBOWS IN ALL SYSTEM TYPES, EXHAUST, SUPPLY AND RETURN.
- REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
- PERSONNEL SHALL BE THOROUGHLY TRAINED AND EXPERIENCED IN THE PRODUCTS INVOLVED AND RECOMMENDED METHODS FOR THEIR FABRICATION AND INSTALLATION SHALL BE MADE FOR LACK OF SKILL ON THE PART OF THE WORKMAN IN THE ACCEPTANCE AND/OR REJECTION OF COMPLETED WORK.
- MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, TOOLS, AND EQUIPMENT TO INSTALL ALL HVAC SYSTEMS AS INDICATED ON THESE DRAWINGS.
- INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
- MECHANICAL CONTRACTOR SHALL ARRANGE AND PAY FOR MECHANICAL PERMITS AND INSPECTIONS AS REQUIRED BY LOCAL ORDINANCES.
- DELIVER MATERIALS TO PROJECT IN GOOD CONDITION. STORE MATERIALS OFF OF GROUND AND PROTECT FROM WEATHER AND THE ELEMENTS.
- VERIFY DIMENSIONS IN THE FIELD. VERIFY STRUCTURAL DETAILS. INSTALLATION OF MANUAL BALANCING DAMPER COMPENSATION SHALL BE CONSIDERED BECAUSE OF DIFFERENCE BETWEEN ACTUAL MEASURED DIMENSIONS AND THOSE INDICATED ON THE DRAWINGS.
- ALL PENETRATIONS THROUGH WALLS SHALL BE PROVIDED WITH PROPERLY SIZED SLEEVES. SEAL ALL PIPE SLEEVES WITH APPROPRIATE CAULKING. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE INSTALLED IN ACCORDANCE WITH APPROPRIATE 3M FIRE STOP SYSTEM (OR APPROVED EQUAL). ALL PIPING SLEEVES SHALL BE SCHEDULE 40, CARBON STEEL ASTM A53, GRADE B.
- ANY CUTTING OR PATCHING OF NEW OR EXISTING SURFACES THAT IS REQUIRED SHALL BE BY THIS CONTRACTOR AND SHALL BE REPLACED WITH MATERIAL OF THE SAME QUALITY AND THICKNESS AS THE EXISTING SURFACE. ANY DAMAGES TO EXISTING MATERIALS SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING.
- ALL DUCTWORK SHALL BE IDENTIFIED AFTER INSULATION WITH PLASTIC DUCT SIGNAGE/MARKERS. THESE MARKERS SHALL BE MANUFACTURE'S STANDARD LAMINATED PLASTIC IN THE FOLLOWING COLOR CODES INDICATING BACKGROUND COLOR THEN LETTER COLOR: A. BLUE/ WHITE: SUPPLY AIR B. RED/ WHITE: RETURN AIR C. GREEN/ WHITE: OUTSIDE AIR/ INTAKE AIR D. YELLOW/ BLACK: RELIEF AIR/ EXHAUST AIR.
- ENGAGE AN INDEPENDENT TESTING, ADJUSTING AND BALANCING (TAB) AGENT CERTIFIED BY EITHER AABC OR NEBB FOR ALL TESTING, ADJUSTING AND BALANCING. SEE THE TAB SPECIFICATION FOR MORE INFORMATION.
- THERMOSTATS/HUMIDISTATS/CO2 SENSORS SHALL BE LOCATED AS PER PLANS 48 INCHES ABOVE FINISHED FLOOR. ANY THERMOSTAT THAT IS REQUIRED TO BE MOUNTED ON AN EXTERIOR WALL MUST BE MOUNTED ON AN INSULATED BASE. INSTALL WIRING IN CONDUIT PER DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.
- MECHANICAL CONTRACTOR SHALL HAVE THE FINAL START-UP OR ALL HVAC EQUIPMENT SUPERVISED AND MONITORED BY A FACTOR AUTHORIZED TECHNICIAN.
- HOUSEKEEPING PADS: EXCEPT WHERE STRUCTURAL EQUIPMENT SUPPORT PADS ARE CALLED FOR ON THE PLANS, PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL GROUND AND/OR FLOOR MOUNTED EQUIPMENT. UNLESS OTHERWISE INDICATED, PADS MUST BE MINIMUM OF 6 INCHES THICK WITH CHAMFERED EDGES. WHERE PADS ARE INSTALLED ON CONCRETE FLOORS, DOWEL RODS PENETRATING INTO BOUT THE PAD AND THE FLOOR (MINIMUM 4 RODS PER PAD) MUST BE USED TO ANCHOR PADS IN POSITION.
- ALL WIRING INSTALLED FOR CONTROLS, POWER, INTERLOCKS, ETC WHICH ARE TO BE INSTALLED IN OCCUPIED SPACES OR IN RETURN PLENUMS MUST BE PLENUM RATED OR INSTALLED IN CONDUIT UNLESS OTHERWISE INDICATED. ALL SUCH INSTALLATIONS MUST MEET NFPA AND NEC REQUIREMENTS AND LOCAL CODES.
- SEAL ALL ROOF AND WALL PENETRATIONS. FLASH AND COUNTER-FLASH ALL ROOF PENETRATIONS. MINIMUM ACCEPTABLE HEIGHT OF FLASHING IS EIGHT (8) INCHES ABOVE ROOF.
- MAINTAIN A MINIMUM OF 15'-0" BETWEEN ALL FRESH AIR INTAKES AND PLUMBING VENTS, EXHAUST FAN DISCHARGE FLUE, ETC. COORDINATE WITH ALL OTHER CONTRACTORS ON SITE.
- EXTERIOR DUCTWORK EXPOSED TO WEATHER: CROWN TOP SURFACE FOR WATER RUNOFF AND COMPLETELY SEAL ALL JOINTS WITH UV RESISTANT WEATHERPROOF SEALANT.
- DURING CONSTRUCTION, AFTER START-UP OF HVAC SYSTEMS, CONTRACTOR MUST MAINTAIN AND/OR REPLACE ON A REGULAR SCHEDULE ALL FILTERS IN THE HVAC SYSTEM. ON (1) WEEK BEFORE START-UP, THE CONTRACTOR MUST REPLACE ALL AIR FILTERS WITH NEW FILTERS. DO NOT OPERATE HVAC SYSTEMS WITHOUT FILTER.
- INDOOR AIR QUALITY MEASURERS: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT, AND MOISTURE. REPLACE INSULATION THAT HAS GOTTEN WET AT ANY TIME DURING CONSTRUCTION, DRY THE INSULATION BEFORE IT IS ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST.
- COORDINATE LOCATION OF ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- PROVIDE WALL OR DUCT ACCESS PANELS OR DOOR FOR ACCESS TO FIRE AND FIRE/SMOKE DAMPERS. ACCESS PANEL OR DOOR SHALL BE MINIMUM SIZE OF 10"x10" AND SHALL BE INSTALLED WITHIN 12" OF DAMPER. PROVIDE A REMOVABLE DUCT SECTION WHERE DUCT SIZE IS TOO SMALL FOR A 10"x10" ACCESS DOOR.
- PROVIDE A MANUAL BALANCING DAMPER IN EACH BRANCH DUCT TAKEOFF FROM MAIN SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
- PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKE-OFF FITTING WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.
- BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE INDICATED.
- FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DEVICES.
- MECHANICAL CONTRACTOR SHALL SUPPLY SMOKE DETECTOR IN RETURN DUCT OF AIR HANDLERS OVER 2000 CFM AND FOR UNITS WHICH SERVE AREAS OF EGRESS FOR INSTALLATION BY ELECTRICAL CONTRACTOR. DETECTORS SHALL BE MOUNTED, PHOTOELECTRIC TYPE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM WITH INTEGRAL RELAY FOR SHUTDOWN OF UNIT UPON ACTIVATION OF DETECTOR.
- ALL DUCT OFF-SETS ARE TO BE MADE WITH RADIUS ELBOWS.
- PROVIDE TRANSITIONS FOR ALL EQUIPMENT CONNECTIONS.
- THE CONTRACTOR SHALL COORDINATE AND VERIFY THE FOLLOWING DIVISIONS 23 AND 26 PRIOR TO BID: DISCONNECTS: WHERE NOT FURNISHED WITH EQUIPMENT: FURNISHED UNDER DIVISION 26. INSTALLED UNDER DIVISION 26. WHERE FURNISHED WITH EQUIPMENT: FURNISHED UNDER DIVISION 23, INSTALLED UNDER DIVISION 26.

APP'D

DESCRIPTION

DATE

REV #

APPROVED

CHIEF ENGINEER

APPROVED

CIVIL ENGINEER

NKAK 22-1076
B718 DORM
LITTLE ROCK AFB

DETAILS (1)

MECHANICAL NOTES AND
ABBREVIATIONS

AIR MOBILITY COMMAND
19TH CIVIL ENGINEER SQUADRON
LITTLE ROCK, ARKANSAS

DATE:
JULY 2026

DESIGNED
BY:
SAH

DRAWN
BY:
B.WHR

BUILDING
NO.:

PROJECT
NO.:

SHEET
REF.:

M-002

SHEET
NO.:

1 OF XX

STATUS:65% PRELIMINARY DESIGN