

HVAC & PLUMBING SYMBOL SCHEDULE

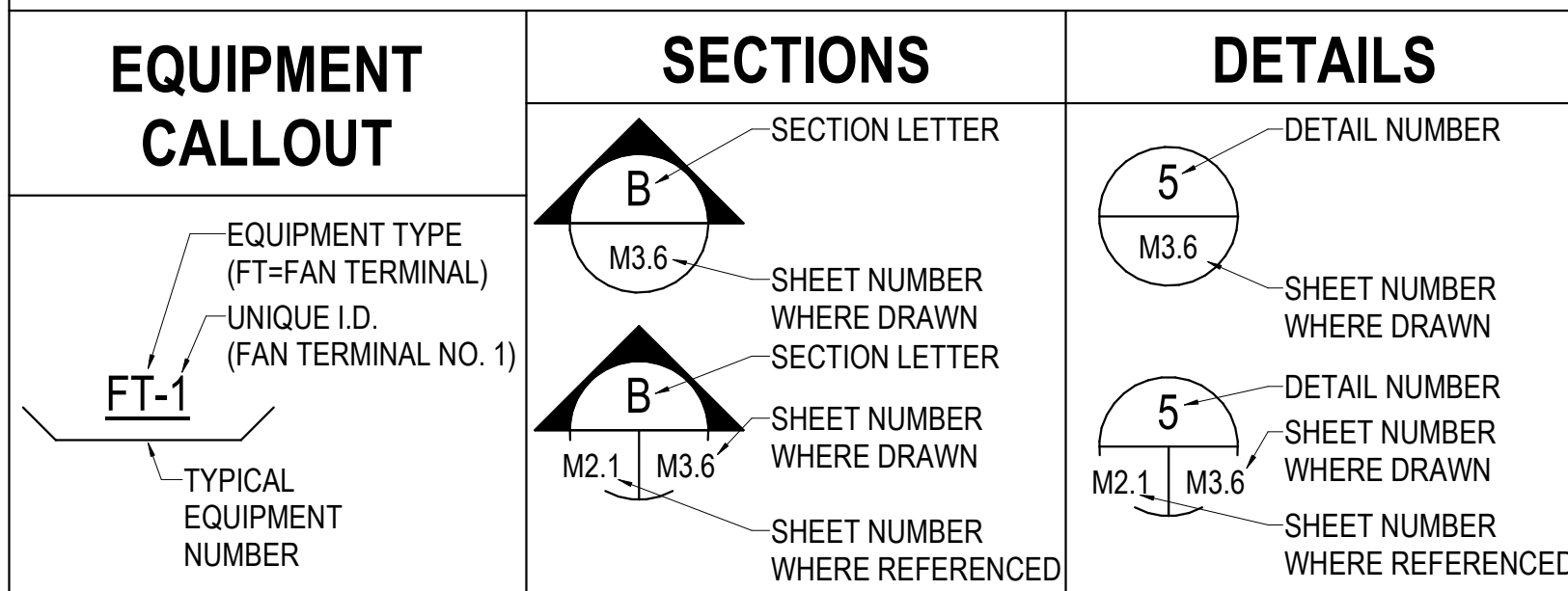
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(#) (#) (#)	REFER TO PLAN NOTES	[111]	ROOM CALLOUT
(E)	EXISTING EQUIPMENT OR MATERIAL DESIGNATION	[REVISION]	REVISION NUMBER
---	EXISTING COMPONENT PEN WEIGHT	[CONNECT]	CONNECT NEW TO EXISTING. VERIFY EXACT LOCATION.
---	DEMOLITION PEN WEIGHT - COMPONENT MAY ALSO BE SHADED	[DISCONNECT]	DISCONNECT FROM EXISTING. VERIFY EXACT LOCATION.
TCC	TEMPERATURE CONTROL CONTRACTOR	GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR	TYP. / (TYP)	TYPICAL ALL INSTANCES
UNO	UNLESS NOTED OTHERWISE	ETR	EXISTING TO REMAIN
[24x12]	(UP) DUCT SEC., POSITIVE PRESSURE-FIRST SIZE IS TOP DIM.(TYP.)	[DAMP]	BALANCING DAMPER W/ MANUAL LOCKING QUADRANT
[24x12]	(DOWN) DUCT SECTION, POSITIVE PRESSURE	[DAMP]	RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
[24x12]	(UP) DUCT SECTION, NEGATIVE PRESSURE	[DAMP]	BALANCING DAMPER W/ MOTORIZED LOCKING QUADRANT
[24x12]	(DOWN) DUCT SECTION, NEGATIVE PRESSURE	[DAMP]	RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
[24x12]	SUPPLY DUCT DROP / RETURN DUCT DROP	[18x12]	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN-CLEAR INSIDE DIM.
[24x12]	SUPPLY DUCT RISER	[R]	DUCT CHANGE OF ELEVATION RISE(R) DROP(D)
[24x12]	RETURN DUCT RISER	[FLEX]	FLEXIBLE CONNECTION
[FLEX]	FLEXIBLE DUCT	[REG]	SIDE WALL SUPPLY REGISTER
[TURN]	TURNING VANES	[RTU/AHU]	ROOFTOP UNIT / AIR HANDLING UNIT
SA/OA	SUPPLY AIR / OUTSIDE AIR	VAV	VARIABLE AIR VOLUME UNIT
RA/EA	RETURN AIR / EXHAUST AIR	FTU/FCU	FAN POWERED TERMINAL UNIT / FAN COIL UNIT
OBD	OPPOSED BLADE DAMPER	MAU	MAKE-UP AIR UNIT
BOD	BOTTOM OF DUCT ELEVATION ABOVE FLOOR	SF	SUPPLY AIR FAN
BOS	BOTTOM OF STEEL	EF/RG	EXHAUST FAN / RETURN GRILLE
TOD	TOP OF DUCT ELEVATION ABOVE FLOOR	SR	SUPPLY REGISTER
DH	DUCT HEATER	F	FURNACE
DP	DIFFERENTIAL PRESSURE	UH	UNIT HEATER
CVR	CONSTANT VOLUME REHEAT UNIT	CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
V V R	VARIABLE VOLUME REHEAT UNIT	H	HUMIDIFIER
V V T	VARIABLE VOLUME VARIABLE TEMPERATURE	VFD	VARIABLE FREQUENCY DRIVE
UV	ULTRAVIOLET STERILE CONDITIONER	FD	FIRE DAMPER IN WALL
[RAD]	RADIATION DAMPER	FD	FIRE DAMPER IN FLOOR
[M]	MOTOR	SD	SMOKE DAMPER
[T]	TEMPERATURE SENSOR	FSD	COMBINATION FIRE/SMOKE DAMPER IN WALL
[H]	HUMIDITY SENSOR	FSD	COMBINATION FIRE/SMOKE DAMPER IN FLOOR
[E]	ELECTRIC OR DDC HUMIDISTAT (HSTAT)	[T]	ELECTRIC OR DDC THERMOSTAT (TSTAT)
[P]	PNEUMATIC HUMIDISTAT	[T]	PNEUMATIC THERMOSTAT
[DCB]	DOUBLE CHECK BACKFLOW ASSEMBLY	[BALL]	BALL VALVE
[RZB]	REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY	[CIB]	CIRCUIT SETTER - CALIBRATED BALANCE VALVE
[GCV]	GAS COCK / GLOBE VALVE	[BUT]	BUTTERFLY VALVE
[VID]	VALVE IN DROP / VALVE IN RISER	[2W]	2-WAY / 3-WAY CONTROL VALVE (PNEUMATIC)
[GAV]	GATE VALVE - SHUT OFF VALVE	[2W]	2-WAY / 3-WAY CONTROL VALVE (ELECTRIC)
[3PB]	3 PIECE BALL VALVE / HYDRAULIC VALVE	[CHK]	CHECK VALVE
[EMV]	EMERGENCY VALVE WITH FIRE LINK	[PRV]	PRESSURE REDUCING VALVE (PRV) / WAFER CHECK VALVE
[STR]	STRAINER / UNION OR FLANGE CONNECTION	[AFC]	AUTOMATIC FLOW CONTROL VALVE
[PLG]	PLUG VALVE	[ORIF]	CALIBRATED ORIFICE PLATE FLOW METER
[SPR]	SPRING HANGER / PIPE HANGER	[THER]	THERMOMETER / PRESSURE GAUGE
[CAP]	CAP / CAPPED OUTLET	[CONC]	CONCENTRIC REDUCER OR INCREASER / ECCENTRIC REDUCER
[PIR]	PIPE DROP / PIPE RISE	[TOP]	TOP CONNECTION, 45° OR 90° / BOTTOM CONNECTION, 45° OR 90°
[DIR]	DIRECTION OF FLOW / ANCHOR	[SIDE]	SIDE CONNECTION
[CW]	DOMESTIC COLD WATER LINE (CW)	[W]	ABOVE FLOOR WASTE LINE (W)
[HW]	DOMESTIC HOT WATER LINE (HW)	[W]	BELOW FLOOR WASTE LINE (W)
[HWC]	HOT WATER RECIRC LINE (HWC)	[V]	PLUMBING VENT LINE (V)
[F]	FIRE PROTECTION LINE (F)	[RL]	RAIN LEADER (RL) / OVERFLOW RAIN LEADER (ORL)
[CA]	COMPRESSED AIR (CA)	[SWS]	STORM SEWER (SWS)
[TW]	DOMESTIC TEMPERED WATER LINE (TW)	[FS]	FUEL SUPPLY / UNUSABLE FUEL
[FCW]	FILTERED COLD WATER LINE (FCW)	[FOS]	FUEL OIL SUPPLY / FUEL OIL RETURN
[SCW]	SOFT COLD WATER LINE (SCW)	[FOG]	FUEL OIL GAUGE
[RO]	REVERSE OSMOSIS PURE WATER SUPPLY LINE (RO)	[TOP]	TOP OF PIPE / BOTTOM OF PIPE ELEVATION ABOVE FLOOR
[ROR]	REVERSE OSMOSIS PURE WATER RETURN LINE (ROR)	[RD/ORD]	ROOF DRAIN / OVERFLOW ROOF DRAIN
[DI]	DEIONIZED PURE WATER SUPPLY (DI)	[CI]	CAST IRON
[IW]	INDUSTRIAL WASTE	[VCP/PVC]	VITRIFIED CLAY PIPE / POLYVINYL CHLORIDE PIPE
[G]	NATURAL GAS LINE (G)	[WH]	WALL HYDRANT
[CD]	COOLING COIL CONDENSATE DRAIN LINE (CD)	[WH#]	WATER HEATER CALLOUT
[VTR]	VENT THROUGH ROOF	[F/S]	FILTER-SEPARATOR
[FD/TD]	FLOOR DRAIN / TRENCH DRAIN	[FS]	FLOOR SINK
[CO]	CLEANOUT (FLOOR) / 2-WAY CLEANOUT (FLOOR)	[FHC]	FIRE HOSE CABINET
[WCO]	WALL CLEANOUT / END OF LINE CLEANOUT	[DHWP]	DOMESTIC HOT WATER PUMP
[P#]	PLUMBING FIXTURE CALLOUT	[HR/HB]	HOSE REEL / HOSE BIBB
[WHA#]	WATER HAMMER ARRESTOR - PDI SIZE	[TMV]	THERMOSTATIC MIXING VALVE
[FL]	FLOW LINE ELEVATION		

NOT ALL MAY BE USED ON PROJECT

GENERAL NOTES

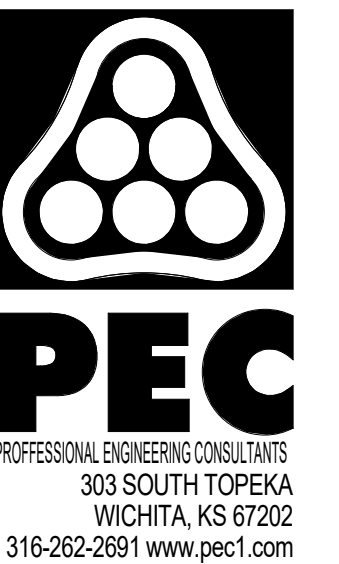
- VERIFY JOB SITE CONDITIONS AND DIMENSIONS BEFORE BEGINNING WORK. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.
- NO PIPING, DUCTWORK, ETC. SHALL PENETRATE STRUCTURAL MEMBERS.
- PROVIDE MISCELLANEOUS CUTTING, PATCHING AND REPAIRING OF FINISHES, ROOF, WALLS, ETC., AS REQUIRED TO ACCOMMODATE THE NEW WORK.
- G.C. IS TO PATCH ANY OPENINGS IN CORRIDORS REQUIRED TO BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE AND IN SMOKE BARRIERS AS REQUIRED TO MEET CODE REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- UNLESS OTHERWISE INDICATED, INSTALL ALL SPACE THERMOSTATS AND OTHER OCCUPANT ADJUSTABLE CONTROL DEVICES SAME HEIGHT AS ADJACENT LIGHT SWITCHES, BUT IN NO CASE HIGHER THAN 48 INCHES ABOVE FINISHED FLOOR PER ADA REQUIREMENTS. COORDINATE EXACT HEIGHT WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL CUTTING AND PATCHING SHALL BE CLOSELY COORDINATED WITH THE G.C.
- COORDINATE ROUTING OF PLUMBING, AND HVAC PIPING WITH DUCTWORK, LIGHTS, ARCHITECTURAL CEILING AND STRUCTURAL ELEMENTS. PIPING SHALL RISE AND DROP, JOG OR OFFSET AS REQUIRED TO AVOID CONFLICTS. DUCTWORK SHALL TAKE PRECEDENCE OVER ALL PIPING, EXCEPT WHERE GRADE MUST BE MAINTAINED FOR DRAINAGE. REWORK OF INSTALLED WORK TO RESOLVE CONFLICTS ARISING FROM LACK OF COORDINATION SHALL NOT JUSTIFY AN INCREASE IN THE CONTRACT AMOUNT.
- ALL DIFFUSERS ARE 4-WAY BLOW UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- SEAL TRANSVERSE AND LONGITUDINAL JOINTS OF ALL DUCTWORK USING HARDCAST DT TAPE AND FTA-20 ADHESIVE OR HARDCAST AFG-1402 "FOIL GRIP" PER MANUFACTURERS INSTRUCTIONS.
- INSTALL BALANCE DAMPER WITH STANDOFF AND LOCKING QUADRANT IN AN ACCESSIBLE LOCATION AT EACH RUNOUT TO SUPPLY DIFFUSERS, EXHAUST GRILLES, AND RETURN GRILLES WHERE AIRFLOW IS INDICATED, OR AS INDICATED OTHERWISE.
- DO NOT ROUTE PIPING OR DUCTWORK OVER ELECTRICAL PANELS OR EQUIPMENT. PIPING OR DUCTWORK SHALL NOT BE ROUTED THROUGH ELECTRICAL ROOMS, TELECOM ROOMS OR ELEVATOR EQUIPMENT ROOMS UNLESS SPECIFICALLY SERVING THAT ROOM. COORDINATE WITH E.C. PROVIDE WATERTIGHT DRIP PAN WITH DRAIN TO NEAREST APPROVED RECEPTOR WHERE REQUIRED.
- COORDINATE SIZE AND LOCATION OF ACCESS DOORS IN CONSTRUCTION REQUIRED FOR ACCESS TO MECHANICAL EQUIPMENT WITH G.C.
- COORDINATE SIZE AND LOCATION OF MECHANICAL EQUIPMENT PADS WITH G.C.
- ALL WORK IS TO CONFORM WITH APPLICABLE CODES AND STANDARDS.
- DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO ACCOMMODATE DUCT LINER WHERE LINER IS SPECIFIED.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES.
- PAINT INSIDE OF DUCTWORK BLACK ANYWHERE VISIBLE THROUGH FACE OF GRILLE OR DIFFUSER.
- UNDERGROUND-TYPE UTILITY MARKER: PROVIDED AND INSTALLED PER SPECIFICATION AT EVERY 100 FEET FOR ALL UNDERGROUND UTILITIES. LABEL WITH THE APPROPRIATE UTILITY.
- MECHANICAL CONTRACTOR (M.C.) SHALL FURNISH AND INSTALL ALL LOW VOLTAGE WIRING REQUIRED FOR MECHANICAL CONTROL SYSTEM. WIRING SHALL BE IN CONDUIT INSIDE WALLS, IN ROOMS WITH EXPOSED CEILINGS, AND ABOVE HARD CEILINGS. LINE VOLTAGE WIRING AND ASSOCIATED CONDUIT SHALL BE PROVIDED AND INSTALLED BY E.C. CONTROL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS.
- ALL CONTROL DAMPERS SHALL BE FURNISHED AND INSTALLED BY THE M.C. MOTOR OPERATORS SHALL BE FURNISHED AND INSTALLED BY THE M.C.
- COORDINATE ACCESS TO EQUIPMENT AND VALVES INSTALLED ABOVE 'HARD' CEILINGS AND IN MASONRY CHASES WITH GENERAL CONTRACTOR. PROVIDE LOCKING ACCESS DOORS FOR INSTALLATION BY CONTRACTOR AS REQUIRED TO SERVICE CONCEALED DAMPERS, VALVES AND EQUIPMENT. CEILING ACCESS DOORS FOR FIRE DAMPERS, SMOKE DAMPERS AND FIRE SMOKE DAMPERS FURNISHED AND INSTALLED BY CONTRACTOR.
- THESE DRAWINGS ARE ACCOMPANIED BY SPECIFICATIONS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

DRAWING SYMBOLS



MECHANICAL SHEET INDEX

M001	MECHANICAL COVER SHEET
M002	MECHANICAL SPECIFICATIONS
M003	MECHANICAL SPECIFICATIONS
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M101	PLUMBING PLAN
M102	PLUMBING PLAN
M201	HVAC PLAN
M501	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M602	MECHANICAL SCHEDULES



SOUTH LAKES
SPORTS PARK
WICHITA, KS

Issue:		
100% PLANS		10/18/23

JOB NO.	220008-003
DATE	18 OCTOBER 2023
PM	NLS
DESIGNED BY	SMC
DRAWN BY	JCM
CHECKED BY	SMC

MECHANICAL COVER SHEET

M001