

MECHANICAL LEGEND

GENERAL

SYMBOL	DESCRIPTION
	HEAVY LINE INDICATES NEW WORK
	LIGHT LINE INDICATES EXISTING WORK
	CENTERLINE
	MATCHLINE
	EXISTING WORK TO BE REMOVED
	PIPELINE - NORMAL DIRECTION OF FLOW
	FLOW ARROW (SUPPLY AIR SHOWN)
	KEY NOTE CALLOUT
	REVISION CALLOUT
	PLUMBING FIXTURE OR DRAIN CALLOUT, SEE SCHEDULE
	MEDICAL OUTLET CALLOUT, SEE SCHEDULE
	POINT OF CONNECTION
	PIPE FLOW CALLOUT: PIPE SIZE (IN) VOLUME FLOW RATE (GPM)
	EQUIPMENT CALLOUT, SEE SCHEDULE
	DIFFUSER OR GRILLE CALLOUT, SEE SCHEDULE
	VOLUME FLOW RATE (CFM), NONE INDICATED FOR TRANSFER GRILLE
	DIFFUSER OR GRILLE TYPE
	INDICATES DIAMETER OR ROUND
	INDICATES FLAT OVAL
	DETAIL CALLOUT: INDICATES DETAIL NUMBER SHEET NUMBER WHERE DETAIL IS DRAWN
	SECTION CALLOUT: INDICATES DIRECTION OF CUTTING PLANE INDICATES SECTION LETTER SHEET NUMBER WHERE SECTION IS DRAWN
	PLUMBING RISER CALLOUT: INDICATES DIRECTION OF VIEWING PLANE SHEET NUMBER WHERE RISER IS DRAWN
	INDICATES PLUMBING RISER LETTER

VENTILATION

DOUBLE	SINGLE	DESCRIPTION
		DUCT: 1ST SIZE (IN) INDICATES SIDE SHOWN, 2ND SIZE (IN) INDICATES SIDE NOT SHOWN, INSIDE FREE AREA
		DOUBLE-WALL INSULATED DUCT
		SUPPLY AIR DUCT - TURNING UP OR TOWARD
		SUPPLY AIR DUCT - TURNING DOWN OR AWAY
		RETURN OR EXHAUST AIR DUCT - TURNING UP OR TOWARD
		RETURN OR EXHAUST AIR DUCT - TURNING DOWN OR AWAY
		ROUND DUCT - TURNING UP OR TOWARD
		ROUND DUCT - TURNING DOWN OR AWAY
		OVAL DUCT - TURNING UP OR TOWARD
		OVAL DUCT - TURNING DOWN OR AWAY
		TRANSITION
		TRANSITION - ROUND TO RECTANGULAR AND OVAL
		TURNING VANES IN RECTANGULAR DUCT TURN
		90° ELBOW (RADIUS = 1.5 x ELBOW DIAMETER)
		RECTANGULAR BRANCH CONNECTION WITH 45° TAPER
		CONICAL BRANCH CONNECTION
		45° LATERAL FITTING
		45° LATERAL FITTING WITH 45° ELBOW
		90° CONICAL TEE FITTING
		BELLMOUTH BRANCH CONNECTION
		90° DIVERGING TEE
		90° DIVERGING TEE
		AUTOMATIC CONTROL DAMPER - OPPOSED BLADE (PROVIDE ACCESS)
		AUTOMATIC CONTROL DAMPER - PARALLEL BLADE (PROVIDE ACCESS)

VENTILATION (CONT)

DOUBLE	SINGLE	DESCRIPTION
		VOLUME DAMPER
		BACKDRAFT DAMPER
		COMBINATION FIRE/SMOKE DAMPER (PROVIDE ACCESS)
		FIRE DAMPER (PROVIDE ACCESS)
		SMOKE DAMPER
		INDICATES RISE OR DROP
		FLEXIBLE DUCTWORK
		FLEXIBLE CONNECTOR
		SUPPLY GRILLE (SIDEWALL)
		RETURN/EXHAUST GRILLE (SIDEWALL)
		EXISTING COMBINATION FIRE/SMOKE DAMPER
		EXISTING FIRE DAMPER
		EXISTING SMOKE DAMPER

SYMBOL	DESCRIPTION
	CEILING DIFFUSER (FOUR-WAY AIRFLOW)
	CEILING DIFFUSER (THREE-WAY AIRFLOW)
	CEILING DIFFUSER (TWO-WAY AIRFLOW)
	CEILING DIFFUSER (ONE-WAY AIRFLOW)
	RETURN/EXHAUST GRILLE
	LINEAR DIFFUSER (FLOW ARROW SHOWN ONLY IF AIRFLOW IS ONE DIRECTIONAL)

EQUIPMENT

SYMBOL	DESCRIPTION
	THERMOSTAT OR TEMPERATURE SENSOR
	DUCT SMOKE DETECTOR
	CONTROL WIRING/TUBING
	TERMINAL UNIT, SEE SCHEDULE
	ACCESS
	UNIT HEATER, SEE SCHEDULE
	PUMP, SEE SCHEDULE

PLUMBING AND PIPING

SYMBOL	DESCRIPTION
	COLD WATER
	HOT WATER
	HOT WATER CIRCULATING
	SOIL OR WASTE - ABOVE GROUND
	SOIL OR WASTE - BELOW GROUND
	RAINWATER LEADER
	OVERFLOW RAINWATER LEADER
	VENT
	TRAP PRIMING LINE
	INDIRECT DRAIN
	GAS
	IRRIGATION WATER
	NON-POTABLE COLD WATER
	COMPRESSED AIR
	CONDENSATE DRAIN
	LOW LEVEL COLD WATER
	LOW LEVEL HOT WATER
	LOW LEVEL HOT WATER RECIRCULATING
	HIGH LEVEL COLD WATER
	HIGH LEVEL HOT WATER
	HIGH LEVEL HOT WATER RECIRCULATING
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	PROCESS CHILLED WATER SUPPLY
	PROCESS CHILLED WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	FILTER SWEEPER RETURN
	FILTER SWEEPER SUCTION
	HEAT RECOVERY HOT WATER SUPPLY
	HEAT RECOVERY HOT WATER RETURN
	CHEMICAL FEED
	HIGH PRESSURE STEAM SUPPLY
	LOW PRESSURE STEAM SUPPLY
	HIGH PRESSURE CONDENSATE RETURN
	LOW PRESSURE CONDENSATE RETURN
	PUMPED CONDENSATE

PLUMBING AND PIPING (CONT)

SYMBOL	DESCRIPTION
	SAND FILTRATION SUPPLY
	CONDENSATE RECEIVER VENT
	REFRIGERANT RELIEF VENT
	STEAM RELIEF VENT
	NON-POTABLE COLD WATER
	SAND FILTRATION RETURN
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	STORM DRAIN
	SANITARY SEWER
	GATE VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	MEMORY STOP BALANCING VALVE
	BALL VALVE
	CIRCUIT BALANCING VALVE
	PRESSURE REGULATING VALVE
	NEEDLE VALVE
	BACKFLOW PREVENTER
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	SOLENOID VALVE
	GAS COCK
	AUTOMATIC FLOW CONTROL VALVE
	FLEXIBLE CONNECTION
	FLANGED CONNECTION
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER (TOP)
	ECCENTRIC REDUCER (BOTTOM)
	EXPANSION JOINT
	BASKET STRAINER
	PIPE ANCHOR
	ALIGNMENT GUIDE
	PORTABLE INSTRUMENT CONNECTION
	STRAINER
	STRAINER WITH BLOW-OFF VALVE
	VENTURI FLOW METER
	FLOW METER
	HIGH PRESSURE STEAM TRAP ASSEMBLY
	LOW PRESSURE STEAM TRAP ASSEMBLY
	PULSE METER
	WATER METER
	UNION
	BLIND FLANGE
	PLUG AND/OR CAP
	PIPE TURNING UP OR TOWARD
	PIPE TURNING DOWN OR AWAY
	PRESSURE GAUGE
	THERMOMETER
	FLOOR CLEANOUT
	WALL CLEANOUT
	WALL HYDRANT/HOSE BIBB
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	RELIEF VALVE
	THRUST BLOCK
	VENT THROUGH ROOF
	FLOOR DRAIN
	ROOF DRAIN

MEDICAL

SYMBOL	DESCRIPTION
	ACID RESISTANT VENT
	ACID RESISTANT WASTE
	DEIONIZED WATER
	EXHAUST GAS (ANESTHESIA)
	MEDICAL AIR
	MEDICAL VACUUM
	MEDICAL VACUUM EXHAUST VENT
	OXYGEN
	NITROGEN
	ZONE VALVE BOX
	MEDICAL GAS ALARM PANEL

FIRE PROTECTION

SYMBOL	DESCRIPTION
	HOSE VALVE
	HOSE VALVE CABINET
	FIRE LINE
	WET ALARM VALVE
	DRY ALARM VALVE
	ALARM BELL
	SUPERVISED VALVE
	FIRE DEPARTMENT CONNECTION
	FLOW SWITCH

INSTRUMENTATION

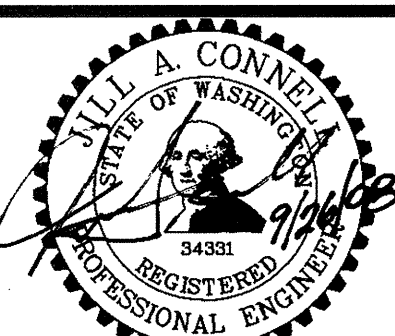
SYMBOL	DESCRIPTION
	DENOTES CONTROL POINT
	SUMMARY ALARM
	AIR HANDLING UNIT
	ANALOG INPUT
	AIR MEASURING UNIT
	ANALOG OUTPUT
	AUXILIARY DEVICE OR CONTACT
	CARBON MONOXIDE
	CARBON DIOXIDE SENSOR
	CONTROL RELAY
	CURRENT SENSOR
	CURRENT TRANSMITTER
	DIRECT DIGITAL CONTROL
	DIGITAL INPUT
	DIGITAL OUTPUT
	DIFFERENTIAL PRESSURE SWITCH
	DIFFERENTIAL PRESSURE SWITCH - HIGH LIMIT
	DIFFERENTIAL PRESSURE SWITCH - LOW LIMIT
	DIFFERENTIAL PRESSURE SENSOR/TRANSMITTER
	FLOW CONTROL VALVE
	FLOW METER
	FREEZE PROTECTION THERMOSTAT
	FLOW SWITCH
	ISOLATION CONTROL VALVE
	LEVEL SWITCH
	MOTOR OPERATED DAMPER
	NORMALLY CLOSED
	NORMALLY OPEN
	PUSH-BUTTON
	PULSE INPUT
	PULSE METER OR INITIATOR
	RELATIVE HUMIDITY
	SILICON RECTIFIER
	SMOKE DETECTOR (DUCT)
	START/STOP
	SPACE TEMPERATURE SENSOR/TRANSMITTER
	TEMPERATURE
	TEMPERATURE CONTROL VALVE
	TEMPERATURE SENSOR/TRANSMITTER (DUCT OR PIPE)
	VARIABLE AIR VOLUME
	VARIABLE FREQUENCY DRIVE

ABBREVIATIONS

ACU	AIR CONDITIONING UNIT	MAX	MAXIMUM
AFF	ABOVE FINISHED FLOOR	MBH	BRITISH THERMAL UNIT PER
AFG	ABOVE FINISHED GRADE		
AHU	AIR HANDLING UNIT		
AI	ALUMINUM	MCA	MINIMUM CURRENT AMPACITY
AP	ALARM PANEL	MECH	MECHANICAL
ARCH	ARCHITECTURAL	MIN	MINIMUM
		MOD	MOTOR OPERATED DAMPER
BDD	BACKDRAFT DAMPER	NC	NOISE CRITERIA
BHP	BRAKE HORSEPOWER	NFHW	NON FREEZE WATER HYDRANT
BOD	BOTTOM OF DUCT	NIC	NOT IN CONTRACT
BOP	BOTTOM OF PIPE	NO	NORMALLY OPEN
		NOM	NOMINAL
CFM	CUBIC FEET PER MINUTE		
CLG	CEILING		
CO	CLEANOUT	OA	OUTSIDE AIR
CONN	CONNECTION	OD	OUTSIDE DIAMETER
CONT	CONTINUATION	OFCL	OWNER FURNISHED
CW	COLD WATER		CONTRACTOR INSTALLED
		ORD	OVERFLOW ROOF DRAIN
DB	DRY BULB		
DDC	DIRECT DIGITAL CONTROL	PD	PRESSURE DROP
DEG	DEGREE	PDI	PLUMBING AND DRAINAGE
DIA	DIAMETER		INSTITUTE
DL	DUCT LINER		
DN	DOWN	POC	POINT OF CONNECTION
DWG	DRAWING	PROP	PROPYLENE GLYCOL
		PSI	POUNDS PER SQUARE INCH
EA	EXHAUST AIR		
EAT	ENTERING AIR TEMPERATURE	RA	RETURN AIR
EF	EXHAUST FAN	RD	ROOF DRAIN
EFF	EFFICIENCY	RH	RELATIVE HUMIDITY
ELEC	ELECTRICAL	RL	RAIN LEADER
ENT	ENTERING	RM	ROOM
ESP	EXTERNAL STATIC PRESSURE	RO	RETURN OPENING
EXH	EXHAUST	RPM	REVOLUTIONS PER MINUTE
(E)	EXISTING		
EWT	ENTERING WATER TEMPERATURE	S	SOIL
		SA	SUPPLY AIR
F	FAHRENHEIT	SEC	SEATTLE ENERGY CODE
FCO	FLUSH CLEANOUT	SE	SUPPLY FAN
FD	FLOOR DRAIN/FIRE DAMPER	SO	SCREENED OPENING
FLA	FULL LOAD AMPACITY	SS	STAINLESS STEEL
FLR	FLOOR	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	SPEC	SPECIFICATION
FT	FEET/FOOT		
FTU	FAN TERMINAL UNIT	TBD	TO BE DETERMINED
		TP	TRAP PRIMER
GAL	GALLONS	TSP	TOTAL STATIC PRESSURE
GPH	GALLON PER HOUR	TU	TERMINAL UNIT
GPM	GALLONS PER MINUTE	TYP	TYPICAL
GWB	GYPSUM WALL BOARD		
		UH	UNIT HEATER
HB	HOSE BIBB	UNO	UNLESS NOTED OTHERWISE
HP	HORSEPOWER		
HW	HOT WATER	V	VENT
HWC	HOT WATER CIRCULATING	VD	VOLUME DAMPER
		VEL	VELOCITY
IA	INTAKE AIR	VS	VENT STACK
ID	INSIDE DIAMETER	VTR	VENT THROUGH ROOF
IE	INVERT ELEVATION		
IN	INCH	W	WASTE/WATT
		WB	WET BULB
KW	KILOWATT	WCO	WALL CLEANOUT
KWH	KILOWATT HOUR	WG	WATER GAGE
		WH	WALL HYDRANT
LAT	LEAVING AIR TEMPERATURE	WS	WASTE STACK
LBS	POUNDS	WSEC	WASHINGTON STATE
LVG	LEAVING		ENERGY CODE
LWT	LEAVING WATER TEMPERATURE		

GIFFIN • BOLTE • JURGENS, p.c.
ARCHITECTS815 S.W. SECOND AVENUE, PORTLAND, OREGON 97204
(503) 223-0992 www.gbarch.com FAX (503) 254-3960

CDI ENGINEERS

4200 - 194th St SW, Suite 200
Lynnwood, WA 98036
T 425.872.1071 F 425.778.8769
www.CDIENGINEERS.com

MultiCare

EMERGENCY DEPARTMENT & CANCER CENTER EXPANSION

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ABBREVIATIONSM0
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