

PLUMBING GENERAL NOTES

1. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE (IPC) CURRENTLY ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
2. PLUMBING VENT PIPING SHOWN IS ONLY FOR DIAGRAMMATIC PURPOSES. COORDINATE VENT THROUGH ROOF LOCATION WITH HVAC AIR INTAKES.
3. ALL VALVES ABOVE CEILINGS AND IN CONCEALED SPACES SHALL BE LABELED AT CEILING TILE WITH METAL CEILING TACKS INDICATING VALVE # AND TYPE OF WATER, (i.e., BLUE=COLD WATER, LETTERING ON LV1-001).
4. PROVIDE WATER HAMMER ARRESTORS IN ALL HW AND CW SUPPLY PIPING AS SHOWN ON WATER RISERS. INSTALL IN ACCORDANCE WITH FDI-WH201 STANDARDS. AIR CHAMBERS ARE NOT ACCEPTABLE SUBSTITUTIONS.
5. PROVIDE THERMAL INSULATION FOR HOT WATER, HOT WATER RETURN AND COLD WATER PIPING IN ACCORDANCE WITH THE ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION AND PER SPECIFICATIONS.
6. PROVIDE CLEANOUTS AT THE BASE OF EACH SANITARY STACK IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE (IPC) CURRENTLY ADOPTED BY THE AUTHORITY HAVING JURISDICTION. CLEANOUTS SHALL BE SIZED TO MATCH THE PIPING BEING SERVED. FLOOR CLEANOUTS SHALL BE SPACED AT 75'-0" MAX. ALSO PROVIDE CLEANOUTS IN HORIZONTAL CHANGE OF DIRECTIONS <45°.
7. THE MANUFACTURERS OF ALL EQUIPMENT SHOWN ARE THE BASIS OF DESIGN. SEE SPECIFICATIONS FOR OTHER ACCEPTABLE MANUFACTURERS.
8. FIRE CAULK AND SLEEVE ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. REFER TO LIFE SAFETY PLANS FOR RATED ASSEMBLY LOCATIONS. REFER TO THE ARCHITECTURAL SHEET FOR WALL DETAILS AND UL ASSEMBLY NUMBERS.
9. COORDINATE UNDERGROUND PIPING INVERT ELEVATIONS WITH STRUCTURAL FOOTING ELEVATIONS AND CIVIL INVERT CONNECTIONS PRIOR TO ANY UNDERGROUND PIPING INSTALLATIONS. IF FOOTINGS ARE IN CONFLICT AND WHERE A PIPING ROLL DOWN IS NOT POSSIBLE, COORDINATE WITH GENERAL CONTRACTOR FOR DROPS IN FOOTINGS AS REQUIRED.
10. VALVES AND FITTINGS SHALL BE THE SAME SIZE AS THE PIPING WHERE THEY ARE LOCATED UNLESS NOTED OTHERWISE.
11. THE CONTRACTOR SHALL ROUGH-IN ALL WASTES AND WATER SUPPLIES FOR FIXTURES AND PERFORM FINAL CONNECTIONS AS NEEDED.
12. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP RIMMER UNLESS NOTED OTHERWISE.
13. ALL FLOOR/ROOF DRAINS SHALL BE PROTECTED FOR THE DURATION OF THE PROJECT. IF ANY DRAINS ARE FOUND TO CONTAIN DEBRIS THE CONTRACTOR SHALL CLEAN AND SCOPE THE DRAIN SYSTEM AT NO ADDITIONAL CHARGE TO THE OWNER.
14. THE CONTRACTOR SHALL ROUGH-IN ALL WASTES AND WATER SUPPLIES FOR FIXTURES AND PERFORM FINAL CONNECTIONS AS NEEDED.
15. ALL FLUSH VALVE WATER CLOSETS SHALL BE ROUGHED IN SO THAT THE FLUSH VALVE HANDLE IS TO THE WIDE SIDE OF THE ROOM/STALL.
16. THIS FACILITY SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
17. WHERE WATER PRESSURE WITHIN THE BUILDING EXCEEDS 80 PSI STATIC, THE CONTRACTOR SHALL INSTALL AN APPROVED WATER PRESSURE REDUCING VALVE CONFORMING TO ASSE 1003 WITH STRAINER. CONTRACTOR SHALL SET PRESSURE AT 60 PSI.
18. REGARDLESS OF HOW PIPING IS PRESENTED ON THE DRAWINGS, PROVIDE ECCENTRIC (FLAT ON TOP) REDUCERS IN HOT AND COLD DOMESTIC WATER PIPING.
19. CONDENSATE PIPING FROM THE DOWN STREAM OF THE HUB DRAIN SHALL BE A HUBLESS CAST IRON SYSTEM.
20. ALL DEVICES, EQUIPMENT, VALVES, ETC. THAT REQUIRE ACCESS SHALL NOT BE LOCATED ABOVE WOOD OR GYPSUM CEILINGS. COORDINATE WITH THE ARCHITECTURAL, REFLECTED CEILING PLAN FOR ACCESSIBLE CEILING LOCATIONS OR ACCESS PANELS. PROVIDE ACCESS DOORS IN INACCESSIBLE CEILINGS TO ACCESS MEP DEVICES ABOVE CEILINGS NOT OTHERWISE ACCESSIBLE.
21. PROVIDE CLEANOUTS AT THE BASE OF EACH STORM RISER

PLUMBING DEMOLITION NOTES

1. NOTIFY THE OWNER, IN WRITING, AT LEAST FIFTEEN (15) DAYS IN ADVANCE OF ALL REQUIRED SHUTDOWNS OR WATER, FIRE, GAS, ELECTRICAL SERVICE, OR OTHER UTILITIES. UPON RECEIPT OF APPROVAL FROM OWNER, SHUTDOWNS SHALL BE PERFORMED AS DIRECTED OTHERWISE BY THE OWNER AND SHALL BE ACCOMPLISHED AT NO ADDITIONAL CONTRACT COST. AT THE END OF EACH SHUTDOWN, ALL SERVICES SHALL BE RESTORED SO THAT NORMAL USE OF THE UTILITIES CAN CONTINUE.
2. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CAUTION SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURE AND MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN, REPAIR, REPLACE, OR RESTORE, TO THE SATISFACTION OF THE OWNER, ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
3. ALL EXISTING PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS NOT REQUIRED FOR REUSE OR REINSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND ARE DESIRED BY THE OWNER, OR ARE INDICATED TO REMAIN THE PROPERTY OF THE OWNER, SHALL BE DELIVERED TO THEM ON THE PREMISES BY THE CONTRACTOR WHERE DIRECTED BY THE OWNER. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.
4. EXISTING CONDITIONS, I.E. PRESENCE AND LOCATION OF DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OR ALL DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS IN THE FIELD BEFORE BEGINNING WORK.
5. EXISTING DUCT, PIPING, AND EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF THEY AFFECT THEIR WORK.
6. WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED, ALL PIPES, VALVES, DUCTS, AND MATERIALS SHALL BE REMOVED TO A POINT BELOW THE FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIALS. WHERE PRACTICAL, ALL SYSTEMS SHALL BE REMOVED PER NOTE 7.
7. EXISTING PIPING, DUCTWORK, AND ALL OTHER MECHANICAL EQUIPMENT NO LONGER REQUIRED TO REMAIN IN SERVICE (SHOWN OR OTHERWISE) SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS UNLESS OTHERWISE INDICATED OR NOTED ON THE PLANS. REMOVE EXISTING PIPING HANGERS, SUPPORTS, VALVES, ETC.
8. MATERIALS AFFECTED BY THE DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE REINSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH NEW WORK SPECIFICATIONS. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER AND AT NO ADDITIONAL CONTRACT COST.
9. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" IS EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND DASHED" IS EXISTING AND SHALL BE DEMOLISHED.
10. NOISE AND VIBRATION SHALL BE MINIMIZED DURING DEMOLITION AND CONSTRUCTION. IF MORE THAN MINIMAL NOISE IS EXPECTED TO COMPLETE A TASK, IT SHALL BE COORDINATED WITH THE OWNER.

RISER DESIGNATIONS

SYMBOL	DESCRIPTION
	DEIONIZED WATER RISER DESIGNATION RISER NUMBER
	DEMINERALIZED WATER RISER DESIGNATION RISER NUMBER
	DISTILLED WATER RISER DESIGNATION RISER NUMBER
	TEMPERED WATER RISER DESIGNATION RISER NUMBER
	INDUSTRIAL / LABORATORY WATER RISER DESIGNATION RISER NUMBER
	LAB GAS RISER DESIGNATION (A, VAC, G, ETC) RISER NUMBER
	LABORATORY WATER RISER DESIGNATION RISER NUMBER
	SANITARY RISER DESIGNATION (S, V) RISER NUMBER
	STORM WATER RISER DESIGNATION RISER NUMBER
	DOMESTIC WATER RISER DESIGNATION (CW, HW, HWR) RISER NUMBER

COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
	BACKWATER VALVE
	BACKFLOW PREVENTER (DUAL CHECK TYPE)
	BACKFLOW PREVENTER (REDUCED PRESSURE TYPE)
	CLEAN OUT (WALL / PIPE)
	CLEAN OUT (FLOOR)
	COLD WATER INTERIOR HOSE BIB
	EXTERIOR WALL HYDRANT (FREEZE PROOF)
	HOSE END DRAIN VALVE
	AREA DRAIN
	FLOOR DRAIN
	FLOOR DRAIN WITH TRAP PRIMING LINE
	FLOOR SINK
	ROOF DRAIN
	ROOF OVERFLOW DRAIN
	RO / DI WATER OUTLET
	EMERGENCY EYEWASH (HANDHELD)
	SHOCK ARRESTER WITH ACCESS DOOR
	TEMPERING VALVE
	WATER METER

RISER COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
	BACKFLOW PREVENTER
	EMERGENCY EYE WASH STATION
	EMERGENCY SHOWER
	EMERGENCY EYE WASH STATION AND SHOWER
	SHOCK ARRESTER
	VACUUM BREAKER
	VENT THROUGH ROOF
	TRAP ARM
	URINAL / WATER CLOSET (WALL MOUNTED)
	URINAL / WATER CLOSET (FLOOR MOUNTED)
	FLOOR / ROOF DRAIN
	PIPE CLEAN OUT
	FLOOR CLEAN OUT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	DEIONIZED WATER RETURN
	DEIONIZED WATER SUPPLY
	DISTILLED WATER
	DOMESTIC COLD WATER (POTABLE)
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	DRAIN WATER, MISCELLANEOUS DRAINAGE
	LABORATORY COMPRESSED AIR
	LABORATORY VACUUM
	LABORATORY VENT
	LABORATORY WASTE
	NATURAL GAS
	OVERFLOW DRAIN
	PUMP DISCHARGE
	RELIEF VENT
	ROOF DRAIN
	REVERSE OSMOSIS RETURN
	REVERSE OSMOSIS SUPPLY
	SANITARY
	STORM DRAIN
	TEMPERED WATER RETURN
	TEMPERED WATER SUPPLY
	VENT
	POINT OF DISCONNECTION (REMOVE TO POINT)
	POINT OF CONNECTION (CONNECT TO EXISTING)

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
AD-X	AREA DRAIN DESIGNATION
ETL-X	EXPANSION TANK DESIGNATION
FD-X	FLOOR DRAIN DESIGNATION
FS-X	FLOOR SINK DESIGNATION
GLX	GREASE INTERCEPTOR DESIGNATION
GRUX	GREASE RECOVERY UNIT DESIGNATION
HWG-X	HOT WATER GENERATOR DESIGNATION
DLX	OIL INTERCEPTOR DESIGNATION
E-X	PLUMBING FIXTURE DESIGNATION
RD-X	ROOF / OVERFLOW DRAIN DESIGNATION
RP-X	RECIRCULATING PUMP DESIGNATION
SEC	SEWAGE EJECTOR DESIGNATION
SP-X	SUMP PUMP DESIGNATION
WBP-X	WATER BOOSTER PUMP DESIGNATION
WMX	WATER METER DESIGNATION
WHX	WATER HEATER DESIGNATION
EA	EXHAUST AIR, EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
NC	NOISE CRITERIA, NORMALLY CLOSED
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION OR ELEVATOR
EMS	ENERGY MANAGEMENT SYSTEM
EO	EQUALIZING
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ESS	EMERGENCY STOP SWITCH
ETC	ETCETERA
EWI	ENTERING WATER TEMPERATURE
EX	EXISTING
EXP	EXPANSION
BA	BUILDING AUTOMATION SYSTEM
BD	BALANCING DAMPER
BDD	BACKDRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
BO	BLOW OFF
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BV	BALANCING VALVE
CA	CONTROL AIR
CBV	CALIBRATED BALANCING VALVE
CC	CONTROLS CONTRACTOR
CD	CONDENSATE DRAIN
CF	CHEMICAL FEED
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT, CARBON MONOXIDE
COP	CARBON DIOXIDE
COP	COEFFICIENT OF PERFORMANCE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CTE	CONNECT TO EXISTING
CU-FT	CUBIC FEET
CU-YD	CUBIC YARD
CV	CONTROL VALVE OR VALVE FLOW COEFFICIENT
CW	COLD WATER, DOMESTIC CITY WATER
°C	DEGREE(S) CELSIUS
D	DEEP, DRAIN WATER
DB	DECIBEL, DRY BULB
DW	DISTILLED WATER
DD	DUCT DETECTOR
DOC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DHW	DOMESTIC HOT WATER SUPPLY
DHWR	DOMESTIC HOT WATER RECIRCULATION
DIA	DIAMETER
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DL	DOOR, LOUVER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DSP	DRY SPRINKLER PIPE
DW	DISTILLED WATER
DWG	DRAWING
DX	DIRECT EXPANSION
N	NITROGEN
N/A	NOT APPLICABLE
NC	NOISE CRITERIA, NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GAS
NO	NORMALLY OPEN, NITROUS OXIDE
No	NUMBER
NOM	NOMINAL
NPSH	NET POSITIVE SUCTION HEAD
NPW	NON-POTABLE WATER
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OB	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OVERFLOW DRAIN, OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OF	OVERFLOW
OS&Y	OUTSIDE STEM AND YOKE

PLUMBING ABBREVIATIONS

#	NUMBER OR POUND	F	FIRE LINE	P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
\$	DOLLAR	F&T	FLOAT AND THERMOSTATIC TRAP	PBD	PARALLEL BLADE DAMPER
%	PERCENT	FD	FIRE DAMPER, FLOOR DRAIN OR FORCED DRAFT	PCP	PUMPED CONDENSATE, PLUMBING CONTRACTOR
&	AND	FDV	FIRE DEPARTMENT VALVE	PCP	PUMP CONTROL PANEL
+	PLUS	FF	FINISHED FLOOR	PD	PRESSURE DROP, PUMP DISCHARGE
-	MINUS	FFE	FINISHED FLOOR ELEVATION	PG	PILOT GAS
/	DIVIDE BY OR PER	FHE	FUME HOOD EXHAUST	PH	PHASE
<	LESS THAN	FINFT	FINS PER FOOT	PIV	PRESSURE INDEPENDENT
=	EQUALS OR EQUAL TO	FINWTH	FINS PER INCH	PIV	PRESSURE INDEPENDENT CONTROL VALVE
>	GREATER THAN	FR	FILTERED FUEL RETURN	PIV	POST INDICATING VALVE
@	AT	FM	FLOWMETER	PNL	PANEL
x	MULTIPLY BY OR BY	FMF	FLOWMETER FITTING	PRH	POUNDS PER HOUR
x'	INCHES OR INCH	FOB	FLAT ON BOTTOM	PRV	PRESSURE REDUCING VALVE, PRESSURE REGULATING VALVE
x"	FEET OR FOOT	FOT	FLAT ON TOP	PSI	POUNDS PER SQUARE INCH
x'	PLUS OR MINUS	FP	FIRE PROTECTION CONTRACTOR	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
Ø	ROUND OR DIAMETER, PHASE	FFM	FEET PER MINUTE	PSIG	POUNDS PER SQUARE INCH GAUGE
≤	LESS THAN OR EQUAL TO	FFS	FEET PER SECOND	PVC	POLYVINYL CHLORIDE
≥	GREATER THAN OR EQUAL TO	FS	FLOW SWITCH	PW	POTABLE WATER
A	COMPRESSED AIR	FSD	FIRE / SMOKE DAMPER	ΔP	DIFFERENTIAL PRESSURE
AAV	AUTOMATIC AIR VENT OR AIR ADMITTANCE VALVE	FT	FEET OR FOOT	QTY	QUANTITY
ACFM	ACTUAL CUBIC FEET PER MINUTE	°F	DEGREE(S) FAHRENHEIT	RA	RETURN AIR
ACH	AIR CHANGES PER HOUR	G	NATURAL GAS	RAF	RETURN AIR FAN
ACV	AUTOMATIC CONTROL VALVE	GA	GAUGE	RD	ROOF DRAIN, ROUND
AD	ACCESS DOOR OR AREA DRAIN	GAL	GALLON, GALLONS	REGRC	REGULATING
AF	ANTIFREEZE	GC	GENERAL CONTRACTOR	REL	RELIEF AIR
AFC	ABOVE FINISHED CEILING	GEN	GENERATOR	REV	REVISION
AFF	ABOVE FINISHED FLOOR	GHR	GLYCOL HEATING RETURN	RH	RELATIVE HUMIDITY
AFG	ABOVE FINISHED GRADE	GHS	GLYCOL HEATING SUPPLY	RL	REFRIGERANT LIQUID
ALT	ALTERNATE	GPH	GALLONS PER HOUR	RRA	REVERSE OSMOSIS WATER RETURN
APD	AIR PRESSURE DROP	GPM	GALLONS PER MINUTE	ROS	REVERSE OSMOSIS WATER SUPPLY
ARCH	ARCHITECTURAL, OR ARCHITECT	H	HEIGHT LIMIT	RPM	REVOLUTIONS PER MINUTE
ATC	AUTOMATIC TEMPERATURE CONTROL	HOA	HAND-OFF-AUTO	RPZ	REDUCED PRESSURE ZONE
AUTO	AUTOMATIC	HORIZ	HORIZONTAL	RS	REFRIGERANT SUCTION
AV	AIR VENT	HP	HORSEPOWER	RV	RELIEF VENT, REFRIGERANT VENT
AV	ACID RESISTANT VENT	HPC	HIGH PRESSURE, HORSEPOWER	RX	REMOVE EXISTING
AW	ACID RESISTANT WASTE	HPS	HIGH PRESSURE STEAM CONDENSATE	SA	SUPPLY AIR, SHOCK ARRESTOR
BAS	BUILDING AUTOMATION SYSTEM	HT	HEIGHT	SAN	SANITARY, SOIL, WASTE
BD	BALANCING DAMPER	HTG	HEATING	SCFM	STANDARD CUBIC FEET PER MINUTE
BDD	BACKDRAFT DAMPER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SD	STORM DRAIN, SMOKE DAMPER
BFF	BELOW FINISHED FLOOR	HWR	HOT WATER RETURN	SF	SQUARE FOOT
BFP	BACKFLOW PREVENTER	HWS	HOT WATER SUPPLY	SP	STATIC PRESSURE
BMS	BUILDING MANAGEMENT SYSTEM	HZ	HERTZ	SPEC	SPECIFICATION
BO	BLOW OFF	IA	INSTRUMENT AIR	SPR	SPRINKLER LINE
BOD	BOTTOM OF DUCT	ID	INDIRECT DRAIN, INSIDE DIAMETER	SQ FT	SQUARE FOOT
BOP	BOTTOM OF PIPE	IN	INCH, INCHES	SQ IN	SQUARE INCH
BTU	BRITISH THERMAL UNIT	INV	INVERT OR INVENTORY	SS	STAINLESS STEEL, SANITARY SEWER
BTUH	BRITISH THERMAL UNIT PER HOUR	IN EL	INVERT ELEVATION	SW	SOFT WATER
BV	BALANCING VALVE	ISO	ISOLATION	TSTAT	THERMOSTAT
CA	CONTROL AIR	ISO	ISOLATION	TA	TRANSFER AIR
CBV	CALIBRATED BALANCING VALVE	KW	KILOWATTS	TAB	TEST AND BALANCE
CC	CONTROLS CONTRACTOR	KWH	KILOWATT HOUR	TD	TOP OF DUCT
CD	CONDENSATE DRAIN	L	LONG LENGTH	TOP	TOP OF PIPE
CF	CHEMICAL FEED	LA	LABORATORY AIR	TS	TAMPER SWITCH
CFH	CUBIC FEET PER HOUR	LAT	LEAVING AIR TEMPERATURE	TSP	TOTAL STATIC PRESSURE
CFM	CUBIC FEET PER MINUTE	LBHR	POUNDS PER HOUR	TW	TREATED WATER
CHWR	CHILLED WATER RETURN	LL	LOW LIMIT	TWR	TEMPERED WATER RETURN
CHWS	CHILLED WATER SUPPLY	LP	LOW PRESSURE	TWS	TEMPERED WATER SUPPLY
CLG	CEILING	LPC	LOW PRESSURE STEAM CONDENSATE	TYP	TYPICAL
CO	CLEANOUT, CARBON MONOXIDE	LPS	LOW PRESSURE STEAM SUPPLY	ΔT	TEMPERATURE DIFFERENTIAL
COP	CARBON DIOXIDE	LW	LABORATORY VACUUM	UC	UNDERCUT
COP	COEFFICIENT OF PERFORMANCE	LWT	LEAVING WATER TEMPERATURE	UL	UNDERWRITERS LABORATORIES
CPVC	CHLORINATED POLYVINYL CHLORIDE	MA	MEDICAL AIR	UNO	UNLESS NOTED OTHERWISE
CTE	CONNECT TO EXISTING	MAV	MANUAL AIR VENT	V	VOLTS, VENT
CU-FT	CUBIC FEET	MAX	MAXIMUM	VAC	VACUUM
CU-YD	CUBIC YARD	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR	VD	VOLUME DAMPER
CV	CONTROL VALVE OR VALVE FLOW COEFFICIENT	MC	MECHANICAL CONTRACTOR	VENT	VENTILATION
CW	COLD WATER, DOMESTIC CITY WATER	MCC	MOTOR CONTROL CENTER	VERT	VERTICAL
°C	DEGREE(S) CELSIUS	MD	MANUAL DAMPER	VFD	VARIABLE FREQUENCY DRIVE
D	DEEP,				

