PIPING SYMBOLS

PIPING SYMBOL	DESCRIPTION
HPS	HIGH PRESSURE STEAM (60 PSIG AND ABOVE)
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM (15 PSIG AND BELOW)
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
PC	CONDENSATE PUMP DISCHARGE
HWS	HOT WATER HEATING SUPPLY
HWR	HOT WATER HEATING RETURN
GHS	GLYCOL–WATER HEATING SUPPLY
GHR	GLYCOL–WATER HEATING RETURN
SWS	SOLAR WATER SUPPLY
SWR	SOLAR WATER RETURN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RHG	REFRIGERANT HOT GAS
CWS	CONDENSER WATER SUPPLY (FROM TOWER)
CWR	CONDENSER WATER RETURN (TO TOWER)
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
GCS	CHILLED GLYCOL–WATER SUPPLY
GCR	CHILLED GLYCOL–WATER RETURN
MW	MAKE–UP WATER
D	DRAIN LINE
V	VENT LINE
GRS	GLYCOL–WATER RUN AROUND SUPPLY
GRR	GLYCOL–WATER RUN AROUND RETURN
X	EXISTING PIPE
FWPD	FEEDWATER PUMP DISCHARGE
FWPS	FEEDWATER PUMP SUCTION
CTPD	CONDENSATE TRANSFER PUMP DISCHARGE
CTPS	CONDENSATE TRANSFER PUMP SUCTION
CF	CHEMICAL FEED
OFL	OVERFLOW
A	COMPRESSED AIR
G	NATURAL GAS MAIN FUEL
G(I)	NATURAL GAS IGNITER FUEL
LPG(I)	LIQUEFIED PETROLEUM GAS IGNITER FUEL
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
CW	COLD WATER (CITY WATER)
SW	SOFTENED WATER
HW	HOT WATER
RH	ROLLER–TYPE HANGER
SH	VARIABLE SPRING–TYPE HANGER (TYPE 51)*
SCH	SPRING CUSHION–TYPE HANGER (TYPE 48 OR 49)*
	CLEVIS–TYPE HANGER
TH	TRAPEZE HANGER (PROVIDE U–BOLT PIPE ATTACHMENT TO TRAPEZE EXCEPT WHERE RH ARE INDICATED)
PS	FLOOR–SUPPORTED PIPE STAND
RC	RISER CLAMP (TYPE 42)*
WB	WALL BRACKET (TYPE 31, 32, 33)*
CSH	CONSTANT SUPPORT HANGER (TYPE 54, 55, 56)*
SS	SLIDING SUPPORTS (TYPE 35)*

* TYPE NUMBERS REFER TO MANUFACTURER'S STANDARDIZATION SOCIETY STANDARD PRACTICE SP-58

NOTE : NOT ALL SYMBOLS SHOWN APPLY

GENERAL PIPING SYMBOLS

PIPING SYMBOL	DESCRIPTION
	DIRECTION OF PIPE PITCH (DOWN)
	DIRECTION OF FLOW
	ANCHOR
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	PIPE UP
	PIPE DOWN
	INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
	FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
	THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
	THERMOMETER
	PRESSURE GAGE
FE	FLOW ELEMENT
	REFRIGERANT SIGHT GLASS
	TEST PLUG (PRESSURE/TEMPERATURE)
AV	AUTOMATIC AIR VENT
MV	MANUAL AIR VENT
	QUICK–COUPLE HOSE CONNECTOR

NOTE : NOT ALL SYMBOLS SHOWN APPLY

VALVE SYMBOLS

VALVE SYMBOL	DESCRIPTION
	GATE VALVE – THREADED/FLANGED
	GLOBE VALVE – THREADED/FLANGED
	GATE VALVE WITH 3/4" HOSE ADAPTER
	CHECK VALVE
	WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
	WYE STRAINER WITH VALVED DRAIN AND QUICK–COUPLE HOSE CONNECTOR
	FLEXIBLE CONNECTION
	ANGLE GLOBE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	TWO–WAY MODULATING CONTROL VALVE
	MODULATING CONTROL BUTTERFLY VALVE
	TWO–WAY TWO POSITION CONTROL VALVE
	THREE–WAY MODULATING CONTROL VALVE
	THREE–WAY TWO POSITION CONTROL VALVE
	PRESSURE REGULATING VALVE
	PRESSURE SAFETY VALVE
	AUTOMATIC BALANCING CONTROL VALVE
	CALIBRATED BALANCING VALVE
	GATE VALVE WITH GLOBE–VALVED BYPASS
	PLUG VALVE
	CONTROL VALVE (CV) – FLOAT–OPERATED
	PRESSURE REDUCING VALVE (PRV)
LC	WATER LEVEL CONTROLLER
M	FLOW METER

NOTE : NOT ALL SYMBOLS SHOWN APPLY

FINAL DESIGN
APPROVED FOR CONSTRUCTION

Revisions: | Date

CONSULTANTS:

Mark G. Hertz
Digitally signed by Mark G. Hertz
Date: 2018.03.12 16:48:25 -04'00'

ENGINEER-OF-RECORD MARK G. HERTZ | FL. P.E. NO. 53279

MARK G. HERTZ LICENSE No. 53279 STATE OF FLORIDA PROFESSIONAL ENGINEER

ARCHITECT/ENGINEERS:

AKEA INC.
3603 NW 98th Street, Suite B
Gainesville, FL 32606
Phone: (352) 474–6124
Fax: (352) 553–4437
COA: FL #26693
AKEA Project No. 094–14

Drawing Title: MECHANICAL PIPING SYMBOLS LEGEND

Approved: Project Director

Project Title: RENOVATE WARD 3C FOR CARDIOLOGY EQUIPMENT INSTALLATION

Location: GAINESVILLE, FLORIDA

Date: MARCH 9, 2018 | Checked: MGH | Drawn: MGH

Project Number: 573-CSI-102

Building Number: 1

Drawing Number: MH003

15 OF 62

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08–6231