PIPEWORK AND ASSOCIATED EQUIPMENT

- BALL VALVE
- BUTTERFLY VALVE
- NON-RETURN VALVE
- DOUBLE CHECK VALVE
- PRESSURE REDUCING VALVE
- DIFFERENTIAL PRESSURE CONTROL VALVE
- PRESSURE RELIEF VALVE
- DIFFERENTIAL PRESSURE CONTROL VALVE
- 2-PORT MOTORIZED VALVE (ON/OFF)
- 2-PORT MOTORIZED VALVE (MODULATING)
- 3-PORT MOTORIZED VALVE (L PORT)
- 3-PORT MOTORIZED VALVE (T PORT, ON/OFF)
- 3-PORT MOTORIZED VALVE (T PORT, MODULATING)
- 3-PORT BALL VALVE
- DOUBLE REGULATING VALVE
- COMMISSIONING SET
- FLOW MEASURING ORIFICE
- TEST POINTS
- DRAIN COCK
- STRAINER
- FLEXIBLE CONNECTIONS
- FLEXIBLE BELLOWS
- FLEXIBLE HOSE (CLEAR BRAIDED)
- UNION
- CHANGE IN MATERIAL
- FLANGES
- PUDDLE FLANGE
- CIRCULATION PUMP
- DIAPHRAGM TYPE EXPANSION TANK
- DIRT AND AIR SEPARATOR (DC)
- THERMAL INSULATION
- THERMAL INSULATION C/W CLADDING

PIPEWORK AND ASSOCIATED EQUIPMENT

- KILOWATTHOUR METER SINGLE/THREE PHASE
- ENERGY/HEAT METER
- FLOW METER
- FLOW SWITCH
- DIFFERENTIAL PRESSURE SWITCH
- DIFFERENTIAL PRESSURE SENSOR
- PRESSURE SENSOR
- TEMPERATURE SENSOR
- PRESSURE GAUGE
- TEMPERATURE GAUGE
- ELECTRIC ISOLATOR SINGLE/THREE PHASE
- REDUCER
- ELECTRIC IMMERSION HEATER
- BOREHOLE
- ENERGY PILE

PIPE LINE TYPES

- 32ø PE100 PIPE
- 40ø PE100 PIPE
- 50ø PE100 PIPE
- 63ø PE100 PIPE
- 75ø PE100 PIPE
- 90ø PE100 PIPE
- 125ø PE100 PIPE
- 160ø PE100 PIPE
- 180ø PE100 PIPE
- 200ø PE100 PIPE
- 225ø PE100 PIPE
- 250ø PE100 PIPE
- STEEL PIPE
- COPPER PIPE

CABLE LINE TYPES

- POWER CONN. BY OTHERS
- CONTROL CONN. BY OTHERS
- ELECTRICAL CONN. BY G.I.

MECHANICAL SERVICES ABBREVIATION

ASHP	AIR SOURCE HEAT PUMP
AAV	AUTOMATIC AIR VENT
BMS	BUILDING MANAGEMENT SYSTEM
CHW	CHILLED WATER
CLG	COOLING
CP	CONTROL PANEL
CU	COPPER PIPE
CV	CONTROL VALVE
DAC	DRY AIR COOLER
DBV	DIFFERENTIAL BYPASS VALVE
DHW	DOMESTIC HOT WATER
DC	DRAIN COCK
F	FLOW
FC	"FREE" COOLING
GL	GROUND LOOP
GSHP	GROUND SOURCE HEAT PUMP
HTG	HEATING
LTHW	LOW TEMPERATURE HOT WATER
LSV	LOCKSHIELD VALVE
MCWS	MAINS COLD WATER SUPPLY
MAV	MANUAL AIR VENT
MCC	MOTOR CONTROL CENTER
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
P	CIRCULATION PUMP
PHE	PLATE HEAT EXCHANGER
PRV	PRESSURE RELIEF VALVE
PDB	POWER DISTRIBUTION BOARD
PU	PRESSURISATION UNIT
RTN	RETURN
T	TEMPERATURE SENSOR
TR	TRENCH
UFH	UNDERFLOOR HEATING
UFC	UNDERFLOOR COOLING
VSD	VARIABLE SPEED DRIVE

EQUIPMENT REFERENCES

- S DENOTES TO SOURCE SIDE
- C DENOTES TO COOLING
- FC DENOTES TO FREE COOLING
- H DENOTES TO HEATING
- L DENOTES TO LOAD SIDE
- CONNECTION TO CONTROL PANEL
- POWER FROM DISTRIBUTION BOARD

SATNDARD COMPONENT'S ARRANGEMENT

- COMMISSIONING SET (5D, 2D)
- FLOW MEASURING ORIFICE (5D, 2D)
- PADDLE FLOW SWITCH (5D, 5D)
- FLOW METER (3D, 5D)

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Rev	By	Chkd	Apprvd	Date	Description
A	MP			30-Jun-11	Typical Schematic Symbols

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Project

Drawing

Mechanical Symbol Sheet

Drawn by:	MP	Date:	31-May-11
Checked by:		Date:	
Approved by:		Date:	

Drawing No. SCCS-GIL-0008

Revision A

Drawing Scale: NTS