

NOTES

1. AIR COOLED CHILLERS CH-1,2 AND DRYCOOLER DC-1 ARE PRE-PURCHASED EQUIPMENT. M.C. SHALL ACCEPT AND INSTALL.
2. COOLANT DISTRIBUTION UNIT CDU-1 IS PRE-PURCHASED. M.C. SHALL ACCEPT AND INSTALL.
3. ALL PRE-PURCHASED EQUIPMENT INCLUDES FACTORY START-UP. M.C. SHALL BE RESPONSIBLE FOR COMPLETION OF PRE-START-UP CHECKLIST AS APPROPRIATE.
4. M.C. SHALL PROVIDE NEW GLYCOL SYSTEM AS INDICATED ON THIS SCHEMATIC INCLUDING, BUT NOT LIMITED TO: GLYCOL PUMPS GLP-1,2, STORAGE TANK ST-1 AND CONTROL VALVE CV-1.
5. M.C. SHALL PROVIDE CHILLED WATER PIPING MANIFOLD FROM CDU-1 TO RDHX'S. CHILLED WATER PIPING MANIFOLD SHALL BE INSULATED.
6. M.C. SHALL ALSO PROVIDE DIGITAL CONTROL SYSTEM FOR CONTROL OF CV-1 AND DRYCOOLER FANS. REFER TO DETAIL 1/M4.
7. GLYCOL SYSTEM TO BE FILLED WITH 30% (BY VOLUME) ETHYLENE GLYCOL.
8. GLYCOL PIPING SHALL BE FULLY INSULATED INCLUDING ALL FITTINGS, VESSELS AND COMPONENTS INDICATED. GLYCOL SYSTEM OUTSIDE SHALL BE FULLY JACKETED.
9. INSTALLATION OF RACK TRANSITION FRAMES, REAR DOOR HEAT EXCHANGERS AND RDHX HOSE KITS SHALL BE BY THE RDHX VENDOR.
10. CHILLED WATER SYSTEM FILL, FLUSH AND FINAL FILL OF THE CHILLED WATER PIPING BETWEEN THE CDU AND RDHX SHALL BE BY THE RDHX VENDOR.
11. RDHX NAMING CONVENTION IS MATCHED TO RACK NAMING CONVENTION - RACK #1 WITH RDHX-1 ETC.

SYMBOLS LEGEND	
	BUTTERFLY VALVE (3" AND LARGER)
	BALL VALVE (2 1/2" AND SMALLER)
	BALANCING COCK
	CHECK VALVE
	STRAINER W/ PLUGGED BLOWOUT VALVE
	HOSE BIBB, WALL HYDRANT OR SILL COCK
	MANUAL AIR VENT W/ DRIP TUBE
	PRESSURE GAUGE W/ "PETE'S PLUG"
	THERMOMETER
	FLOW VENTURI
	CIRCUIT SETTER
	SAFETY RELIEF VALVE
	DIFFERENTIAL PRESSURE SWITCH
	BACKFLOW PREVENTER
	3-WAY BALL VALVE
	3-WAY MASTER-SLAVE BUTTERFLY VALVE

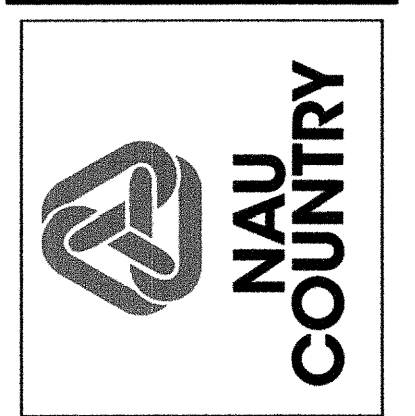
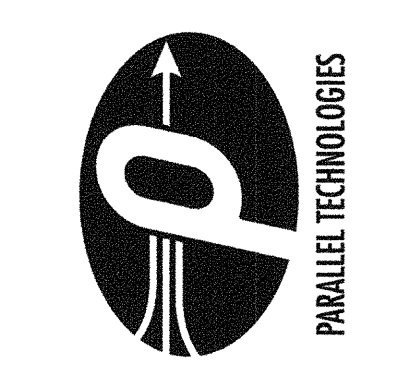
PIPING LEGEND	
	GLYCOL WATER SUPPLY
	GLYCOL WATER RETURN
	NON-POTABLE HUMIDIFIER MAKE-UP
	COIL CONDENSATE DRAIN
	PUMPED COIL CONDENSATE DRAIN
	ELBOW TURNING DOWN
	ELBOW TURNING UP
	PLUGGED OR CAPPED PIPE
	UNION
	CONNECTION - EXISTING TO NEW

1 CHILLED AND CONDENSER WATER SCHEMATIC
M-1 SCALE: NONE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Nathan O. Clyde
 42063
 Registration No.
 10/26/12
 Date

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REVISION NO.	DATE	REVISION NO.	DATE	REVISION NO.	DATE	REVISION NO.	DATE

ISSUE DATE: 10/19/2012

SCHEMATIC
 DATA CENTER PROJECT
 NAU COUNTRY INSURANCE
 7333 SUNWOOD DRIVE NW
 RAMSEY, MN 55303

PROJECT #: 436
 DRAWN BY: NOC
 CHECKED BY: NOC
 SCALE: N/A

DRAWING NUMBER:
M-1