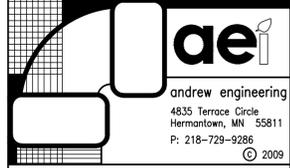
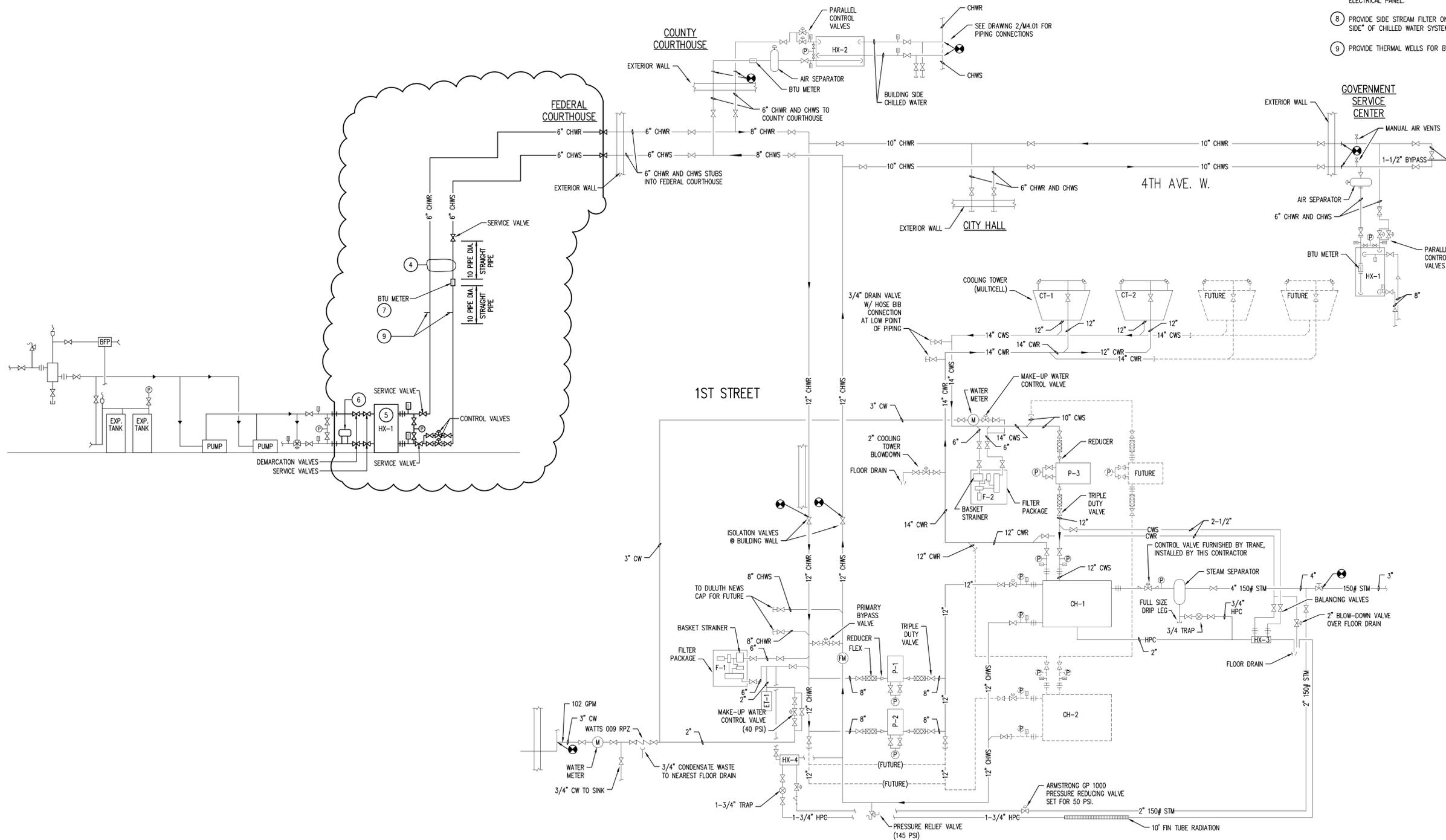


HEAT EXCHANGER SCHEDULE																	
TAG	LOCATION	MANUFACTURER & MODEL	TYPE	SERVICE	MBH	COLD SIDE (DISTRICT CHILLED WATER)				HOT SIDE (BUILDING CHILLED WATER)				# PLATES	HEAT TRANSFER AREA 2334.91 SQ. FT.	COMMENTS	
						FLOW (GPM)	ENTERING TEMP (°F)	LEAVING TEMP (°F)	PRESSURE DROP (FT)	FLOW (GPM)	ENTERING TEMP (°F)	LEAVING TEMP (°F)	PRESSURE DROP (FT)				FLUID
HX-1	MECHANICAL ROOM	B&G MODEL P62	PLATE & FRAME	CHILLED WATER	3789.18324	630	40	52	3.51	DISTRICT WATER	630.27	54	42	3.51	water	321	Furnished by Owner Installed by Contractor

HYDRONIC FILTER SCHEDULE														
UIT NUMBER	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID	FLOW RATE (GPM)	WORKING FLUID	PRESSURE DROP	ELECTRICAL REQUIREMENTS			EFFICIENCY			NOTES
								MOTOR HP	VOLTAGE	PHASE	>74 MICRONS	74-40 MICRONS	40-20 MICRONS	
HX-1	LAKOS TBI 0030-SRV	FEDERAL COURTHOUSE	SIDE STREAM FILTER	CHILLED WATER	31.5	0' TO SYSTEM	1	208	3	98	96	92	FIELD VERIFY VOLTAGE PRIOR TO ORDERING FILTER. COORDINATE LOCATION WITH GSA PRIOR TO PLACEMENT	

KEYED NOTES

- CONNECT 6" CHWS & CHWR TO EXISTING. FIELD VERIFY LOCATION, ARRANGEMENT & SIZE OF EXISTING PIPING.
- MOVE EXISTING DUCTWORK, PIPING & ELECTRICAL CONNECTION AS REQ'D FOR NEW PIPING. FIELD VERIFY DUCTWORK
- MOVE EXISTING UNIT HEATER AS REQ'D FOR NEW PIPING.
- REUSE EXISTING COOLING TOWER SUPPLY & RETURN PIPING ROUTE. COOLING TOWER PIPING TO BE REMOVED BY ANOTHER CONTRACT.
- HX-1 FURNISHED BY OWNER, INSTALLED BY CONTRACTOR - REFER TO FLOW DIA. FOR EXTENT OF INSTALLATION
- SIDE STREAM FILTER
- INSTALL BTU METER FURNISHED BY DULUTH STEAM. INSTALL SERVICE VALVE 10 PIPE DIAMETERS FROM METER. PROVIDE 120V, 20AMP ELECTRICAL CIRCUIT FROM NEAREST ELECTRICAL PANEL.
- PROVIDE SIDE STREAM FILTER ON "BUILDING SIDE" OF CHILLED WATER SYSTEM.
- PROVIDE THERMAL WELLS FOR BTU METER



1	8/17/09	ISSUED FOR BIDS	ML
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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 Engineer under the laws of the State of Minnesota.

Registration No. 22220
Date: 8/17/09
Andrew J Thielen

PROJECT
DISTRICT CHILLED WATER
EXTENSION INTO GERALD
HEANEY FEDERAL BUILDING

SHEET TITLE
FLOW DIAGRAM
AND SCHEDULES

LOCATION
515 W 1st STREET
DULUTH, MN 55802

OWNER
GOVERNMENT SERVICES
ADMINISTRATION

PROJECT NO.
9005

DRAWING CREATION DATE:
5/11/09

1 DISTRICT COOLING FLOW DIAGRAM
M2.0 SCALE: NONE