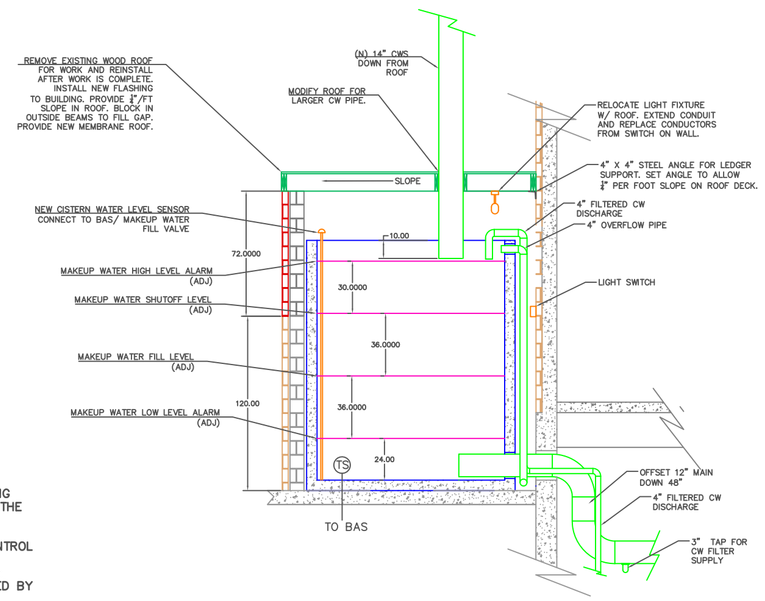
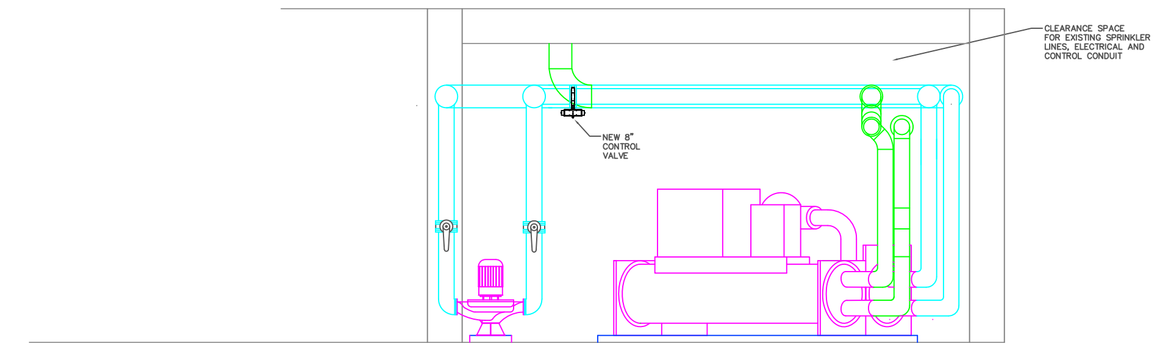
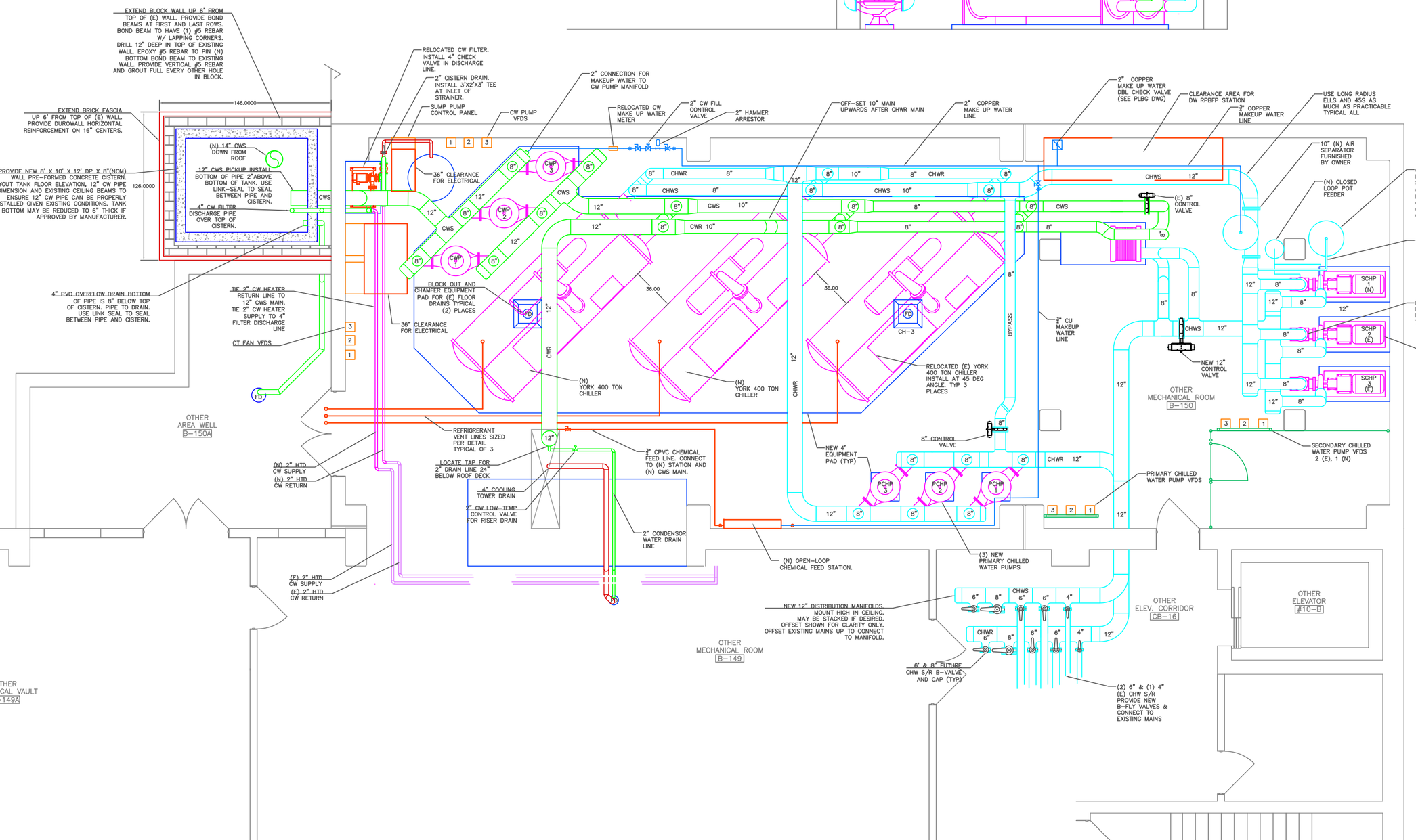


GENERAL NOTES ON CONTROLS

1. CHILLER PLANT IS FULLY OPERATIONAL WITH EXISTING CONTROLS. THE NEW WORK SHOULD NOT INCREASE THE CURRENT NUMBER OF POINTS.
2. THERE WILL BE SIGNIFICANT WORK INVOLVED WITH RELOCATION OF EQUIPMENT-- I.E. MOVING VFDS, CONTROL VALVES, CHILLERS AND PUMPS.
3. SIGNIFICANT DIFFERENCES IN CONTROL SCHEME ARE:
   A. PRIMARY CHILLED WATER PUMPS ARE CONTROLLED BY FLOW METERS ON CHILLERS.
   B. CONDENSER WATER PUMPS ARE CONTROLLED BY FLOW METERS ON CHILLERS.
   C. PRIMARY CHILLED WATER FLOWS WILL BE MONITORED FOR EACH CHILLER AND THE PRIMARY/ SECONDARY BYPASS CONTROL VALVE SHALL BE MODULATED TO MAINTAIN MINIMUM FLOW SET-POINTS FOR CHILLERS.
   D. FREE COOLING CHILLED WATER FLOW SHALL BE ENABLED BY CLOSING THE 12" CONTROL VALVE IN THE SECONDARY CHILLED WATER MAIN, CLOSING ALL CHILLER CONTROL VALVES AND OPENING THE 8" BYPASS CONTROL VALVE. PRIMARY CHILLED WATER PUMPS SHALL BE DISABLED, SECONDARY CHILLED WATER PUMPS SHALL PROVIDE FLOW BASED ON NORMAL DEMAND CONTROL, BUT LIMITED TO MAX FLOW OF HEAT EXCHANGER CAPACITY.
   E. FREE COOLING CONDENSER WATER FLOW SHALL BE ENABLED BY CLOSING ALL CHILLER CW CONTROL VALVES AND OPENING THE HEAT EXCHANGER CW CONTROL VALVE. CONDENSER WATER FLOW SHALL BE SET AT MAXIMUM FLOW RATE OF HEAT EXCHANGER.
   F. FREE COOLING CHILLED WATER TEMPERATURE SHALL BE CONTROLLED BY VARYING THE FAN SPEED ON THE COOLING TOWERS. LOW TEMPERATURE MINIMUM LIMIT SHALL BE 38F AND MAY BE CONTROLLED BY MODULATING THE COOLING TOWER BYPASS VALVE TO MAINTAIN TEMPERATURE.
   G. CW HEATER SHALL BE ENABLED TO RAISE THE CW TEMPERATURE TO 38F WHEN CW TEMP FALLS BELOW 36F. CW HEATER SHALL RAISE CW TEMP TO 45F ONLY WHEN THE CHILLERS ARE ENABLED. CW TEMP SHALL BE MET PRIOR TO STARTING CW PUMPS. CW HEATER SHALL BE DISABLED ONCE CW PUMPS ARE STARTED. CW HEATER SHALL BE DISABLED WHEN RUNNING IN ECONOMIZER MODE.
   H. CW FILTER SHALL BE ENABLED WHENEVER CW PUMPS ARE ENABLED.
   I. WHEN OUTSIDE AIR TEMP FALLS BELOW 36F, ALL COOLING TOWER CONTROL VALVES AND THE CONDENSER WATER BYPASS VALVE SHALL OPEN TO ALLOW WATER TO DRAIN BACK INTO THE CISTERN. AFTER FIVE MINUTES, THE CONDENSER WATER LOW-TEMP CONTROL VALVE SHALL OPEN TO ALLOW THE CW RISER TO DRAIN BELOW ROOF LEVEL.





Revisions	Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

Drawing Title	MH101 (PHASE 2, 3) Chiller Room Mechanical
Approved Project Director	
Project Title	Piping and Chilled Water Water Treatment and Chiller
Location	CHEYENNE VAMC
Date	04/14/2015
Checked	
Drawn	
Project Number	
Building Number	BUFFALO BLDG.
Drawing Number	Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

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three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot