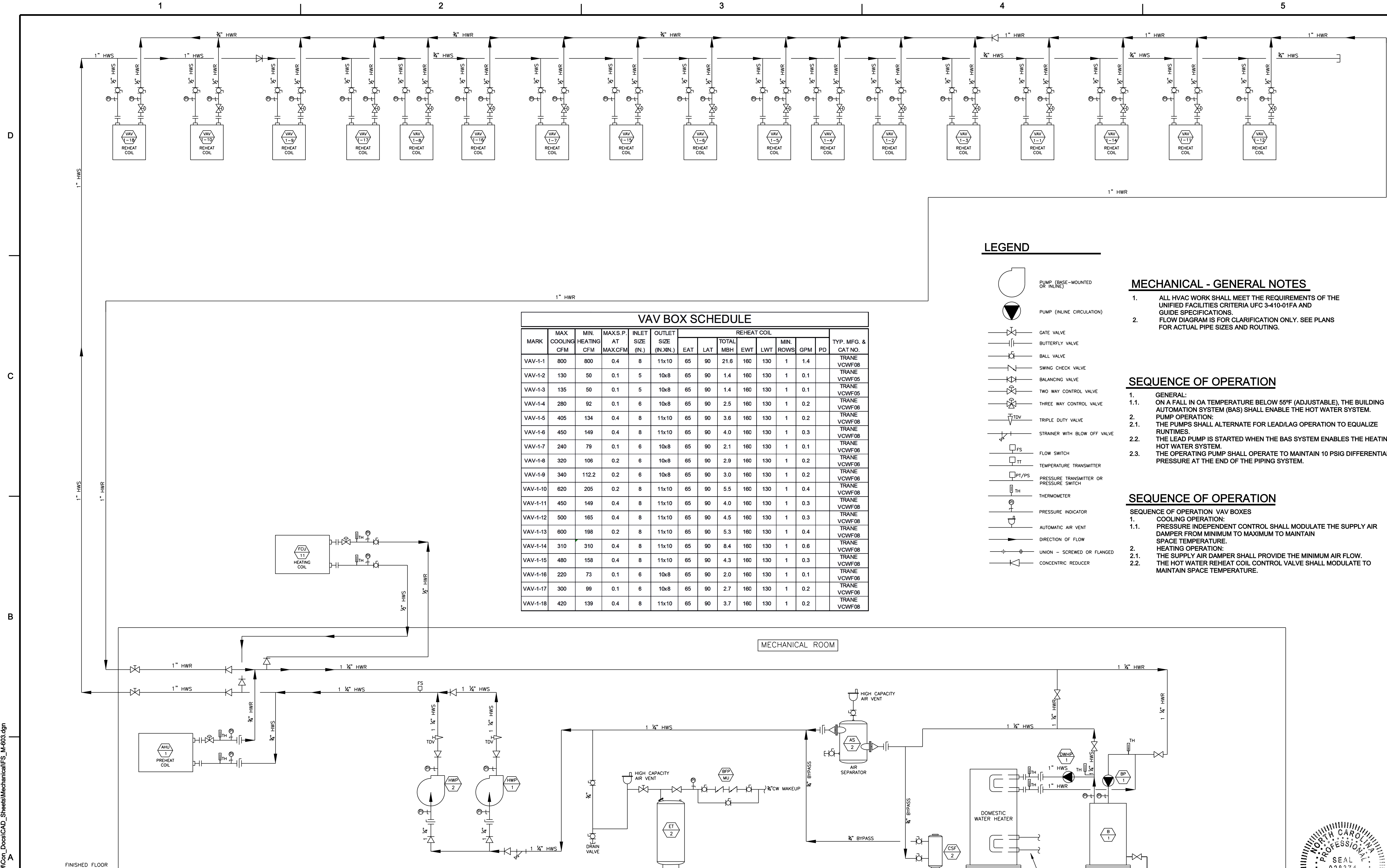


01:43 PM on Thursday, March 04, 2010
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VAV BOX SCHEDULE													
MARK	MAX COOLING CFM	MIN HEATING CFM	MAX S.P. AT MAX CFM	INLET SIZE (IN.)	OUTLET SIZE (IN.)	REHEAT COIL						TYP. MFG. & CAT. NO.	
						EAT	LAT	TOTAL MBH	EWT	LWT	MIN. ROWS		GPM
VAV-1-1	800	800	0.4	8	11x10	65	90	21.6	160	130	1	1.4	TRANE VCWF08
VAV-1-2	130	50	0.1	5	10x8	65	90	1.4	160	130	1	0.1	TRANE VCWF05
VAV-1-3	135	50	0.1	5	10x8	65	90	1.4	160	130	1	0.1	TRANE VCWF05
VAV-1-4	280	92	0.1	6	10x8	65	90	2.5	160	130	1	0.2	TRANE VCWF08
VAV-1-5	405	134	0.4	8	11x10	65	90	3.6	160	130	1	0.2	TRANE VCWF08
VAV-1-6	450	149	0.4	8	11x10	65	90	4.0	160	130	1	0.3	TRANE VCWF08
VAV-1-7	240	79	0.1	6	10x8	65	90	2.1	160	130	1	0.1	TRANE VCWF08
VAV-1-8	320	106	0.2	6	10x8	65	90	2.9	160	130	1	0.2	TRANE VCWF08
VAV-1-9	340	112.2	0.2	6	10x8	65	90	3.0	160	130	1	0.2	TRANE VCWF08
VAV-1-10	620	205	0.2	8	11x10	65	90	5.5	160	130	1	0.4	TRANE VCWF08
VAV-1-11	450	149	0.4	8	11x10	65	90	4.0	160	130	1	0.3	TRANE VCWF08
VAV-1-12	500	165	0.4	8	11x10	65	90	4.5	160	130	1	0.3	TRANE VCWF08
VAV-1-13	600	198	0.2	8	11x10	65	90	5.3	160	130	1	0.4	TRANE VCWF08
VAV-1-14	310	310	0.4	8	11x10	65	90	8.4	160	130	1	0.6	TRANE VCWF08
VAV-1-15	480	158	0.4	8	11x10	65	90	4.3	160	130	1	0.3	TRANE VCWF08
VAV-1-16	220	73	0.1	6	10x8	65	90	2.0	160	130	1	0.1	TRANE VCWF06
VAV-1-17	300	99	0.1	6	10x8	65	90	2.7	160	130	1	0.2	TRANE VCWF06
VAV-1-18	420	139	0.4	8	11x10	65	90	3.7	160	130	1	0.2	TRANE VCWF08

HOT WATER BOILER SCHEDULE											
MARK	LOCATION	FUEL	TYP. MFG. & CATALOGUE NO.	MBH INPUT	MBH OUTPUT	EWT (°F)	LWT (°F)	GPM	VENT (IN.)	MAX. P.D.	NOTES
B-1	MECH. ROOM	NATURAL GAS	LOCHINVAR KB-399	399	372	125	160	21	4"	8	1,2

- NOTES:
- PROVIDE WITH CIRCULATION PUMP, BP-1.
 - PROVIDE WITH DOMESTIC HOT WATER PRIORITIZATION.

LEGEND

- PUMP (BASE-MOUNTED OR INLINE)
- PUMP (INLINE CIRCULATION)
- GATE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- SWING CHECK VALVE
- BALANCING VALVE
- TWO WAY CONTROL VALVE
- THREE WAY CONTROL VALVE
- TRIPLE DUTY VALVE
- STRAINER WITH BLOW OFF VALVE
- FLOW SWITCH
- TEMPERATURE TRANSMITTER
- PRESSURE TRANSMITTER OR PRESSURE SWITCH
- THERMOMETER
- PRESSURE INDICATOR
- AUTOMATIC AIR VENT
- DIRECTION OF FLOW
- UNION - SCREWED OR FLANGED
- CONCENTRIC REDUCER

MECHANICAL - GENERAL NOTES

- ALL HVAC WORK SHALL MEET THE REQUIREMENTS OF THE UNIFIED FACILITIES CRITERIA UFC 3-410-01FA AND GUIDE SPECIFICATIONS.
- FLOW DIAGRAM IS FOR CLARIFICATION ONLY. SEE PLANS FOR ACTUAL PIPE SIZES AND ROUTING.

SEQUENCE OF OPERATION

- GENERAL:
 - ON A FALL IN OA TEMPERATURE BELOW 55°F (ADJUSTABLE), THE BUILDING AUTOMATION SYSTEM (BAS) SHALL ENABLE THE HOT WATER SYSTEM.
- PUMP OPERATION:
 - THE PUMPS SHALL ALTERNATE FOR LEAD/LAG OPERATION TO EQUALIZE RUNTIMES.
 - THE LEAD PUMP IS STARTED WHEN THE BAS SYSTEM ENABLES THE HEATING HOT WATER SYSTEM.
 - THE OPERATING PUMP SHALL OPERATE TO MAINTAIN 10 PSIG DIFFERENTIAL PRESSURE AT THE END OF THE PIPING SYSTEM.

SEQUENCE OF OPERATION

- SEQUENCE OF OPERATION VAV BOXES
 - COOLING OPERATION:
 - PRESSURE INDEPENDENT CONTROL SHALL MODULATE THE SUPPLY AIR DAMPER FROM MINIMUM TO MAXIMUM TO MAINTAIN SPACE TEMPERATURE.
 - HEATING OPERATION:
 - THE SUPPLY AIR DAMPER SHALL PROVIDE THE MINIMUM AIR FLOW.
 - THE HOT WATER REHEAT COIL CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE.

3 MARCH 2010 BUILDING DESIGN FINAL DESIGN FOR CONSTRUCTION



MARK	DESCRIPTION	DATE	APPR.
A	100% PRE-FINAL DESIGN	11/06/09	
B	FINAL DESIGN FOR CONSTRUCTION	03/03/10	

DESIGNED BY:	DATE:	26-JUL-2009
U.S. ARMY CORPS OF ENGINEERS HUNTSVILLE CENTER	DESIGNED BY:	WJ/2DY/08-R200
U.S. ARMY CORPS OF ENGINEERS HUNTSVILLE CENTER	CHK BY:	JL
	CONTRACT NO.:	W812DY-08-C-003
	FILE NUMBER:	XX-XX-XXXX
	AS NOTED	
	FILE NAME:	FS_M-602.dgn
	ANSI D	

15TH STREET FIRE STATION
FORT STEWART, GEORGIA

HOT WATER FLOW DIAGRAM

SHEET IDENTIFICATION
M-603
SHEET 101 OF 117

