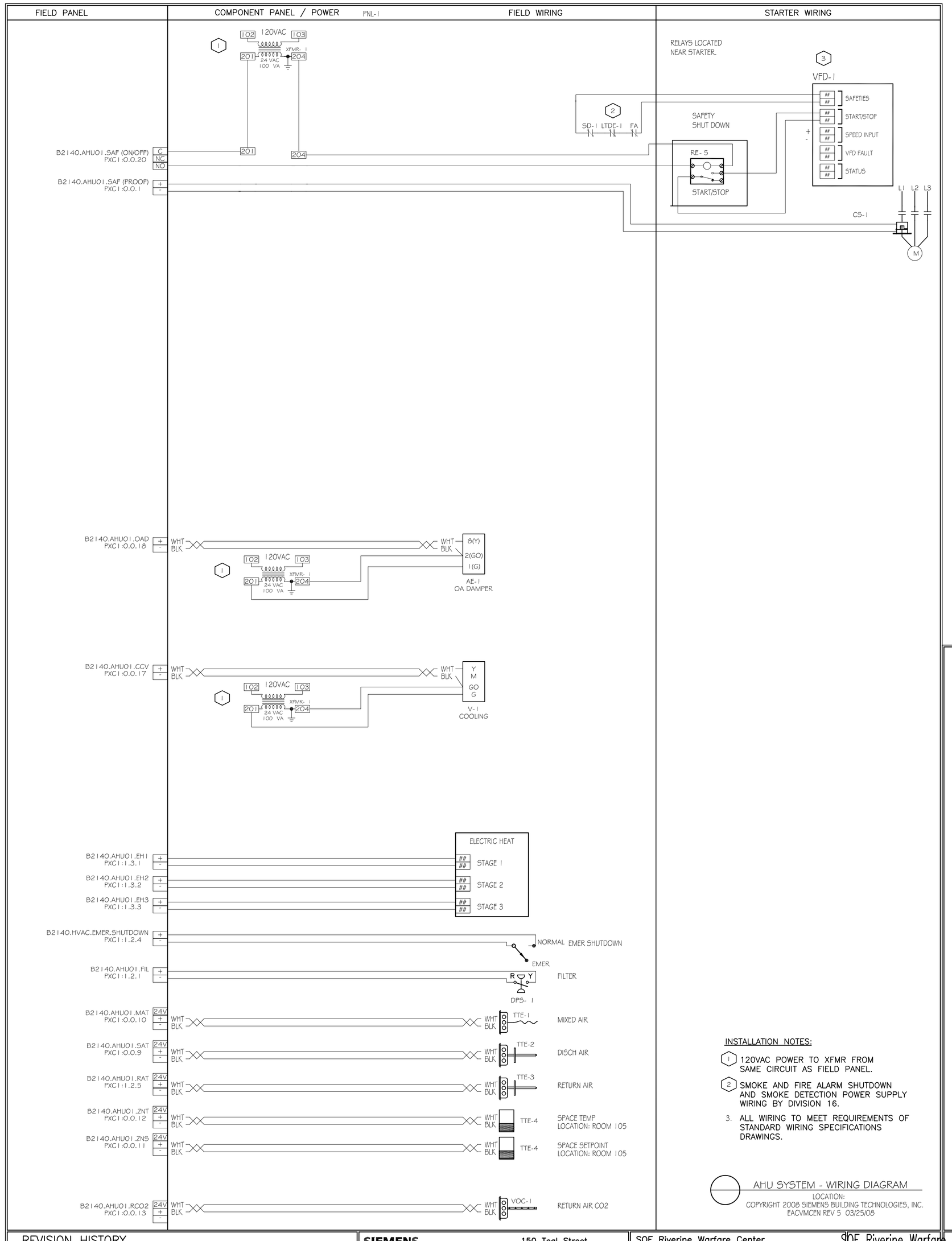


INSTALLATION NOTES:

1. 120VAC POWER TO XFMR FROM SAME CIRCUIT AS FIELD PANEL.
2. SMOKE AND FIRE ALARM SHUTDOWN AND SMOKE DETECTION POWER SUPPLY WIRING BY DIVISION 16.
3. ALL WIRING TO MEET REQUIREMENTS OF STANDARD WIRING SPECIFICATIONS DRAWINGS.

AHU SYSTEM - WIRING DIAGRAM

LOCATION:

COPYRIGHT 2008 SIEMENS BUILDING TECHNOLOGIES, INC.

EACVMCEN REV 5 03/25/08

Air Handler 1 Sequence of Operations

The constant volume air handling unit consists of a mixed air section with outdoor air damper, pre-filter, chilled water cooling coil, electric heating coil and supply fan. The unit is DDC controlled using electric actuation.

The air handling unit is scheduled for automatic operation 24 hours per day.

Occupied
The fan starts or continues to run and the unit is controlled as follows:

The supply air temperature set point is reset based on the room temperature set point based upon the following reset schedule:

Offset from Zone Set Point	SAT Set Point
+ 3 Deg F	55 Deg F
0 Deg F	72 Deg F
-3 Deg F	90 Deg F

The electric heating stages and the cooling coil valve modulate in sequence without overlap to maintain the supply air temperature set point.

The outside air damper modulates to maintain the return CO2 level between 700 and 1000 PPM, with a low limit set point of 48 degrees as sensed by the mixed air temperature sensor.

Unoccupied (Normal Off)
The supply fan is off. The cooling coil valve closes and electric heating is off. The outside air damper is closed to the outdoor air.

Safety
Smoke detectors in the supply air stream de-energize the supply fan upon activation. The electric heating is off. All dampers and valves position to their normal position after the fan is de-energized.

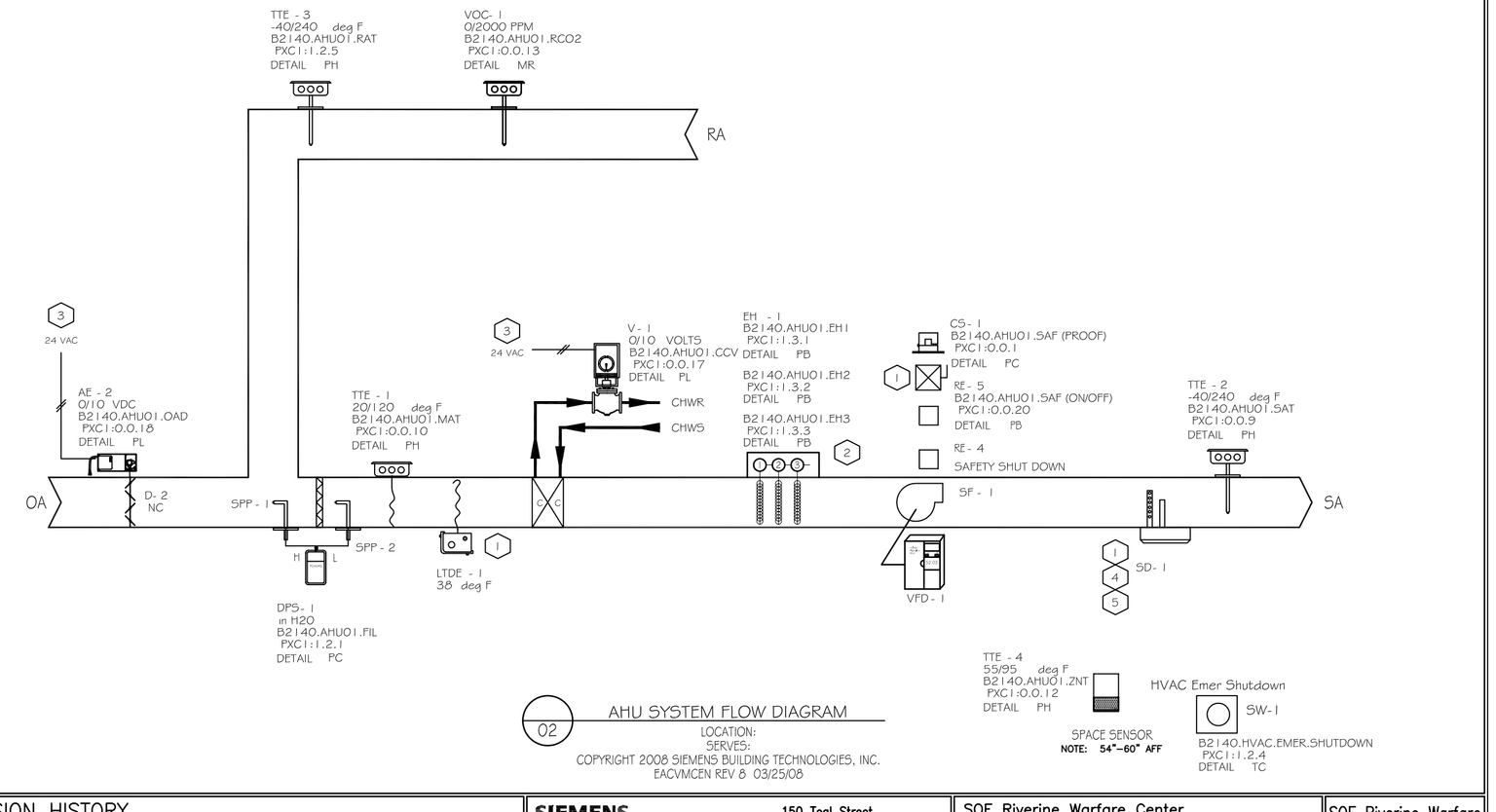
A low temperature detector in the mixed air plenum de-energizes the supply fan when temperatures below 38 degrees F (3 degrees C) are sensed. The cooling coil valve opens, The outside air damper is closed to the outdoor air.

An HVAC Emergency Shutdown Switch located in the Lobby de-energizes the supply fan when activated, and also generates an alarm to the DDC System. The cooling coil valve closes. The outside air damper is closed to the outdoor air.

A current switch is installed in the supply fan starter. The DDC system uses this switch to confirm the fan is in the desired state (i.e. on or off) and generates an alarm if status deviates from DDC start/stop control.

INSTALLATION NOTES:

1. SEE WIRING DETAIL ON ELECTRICAL DRAWING 02A.
2. ALL CONTACTORS AND SAFETY DEVICES BY OTHERS.
3. CONTROL TRANSFORMERS AND RELAYS MOUNTED IN COMPONENT PANEL.
4. PROVIDE WIRING CONTACTS PER ELECTRICAL DRAWING 02A.
5. SMOKE DETECTOR PROVIDED, MOUNTED, AND WIRED BY DIVISION 16.



AHU SYSTEM FLOW DIAGRAM

02

LOCATION:
SERVES:

COPYRIGHT 2008 SIEMENS BUILDING TECHNOLOGIES, INC.

EACVMCEN REV 8 03/25/08

DAMIEN W. SERAUSKAS, P.E.
PROFESSIONAL ENGINEERING SERVICES
15 CYPRESS POINT LANE NEW ORLEANS, LA 70131
VOICE: (504)-866-2600 FAX: (504)-218-8480

APPR	DATE	DESCRIPTION
DWS	06/10/2010	RECORD DRAWING
DWS	06/10/2010	AS-BUILT
MLS	1	

NAVFAC

DAMMON
ENGINEERING, INC.
CHIEF ENGINEER P.MMITT DAMMON, P.E.
CHIEF ARCHITECT ROMPRT WILTSE
1095 FLORIDA AVENUE
SLIDELL, LA 70458
(985) 649-5832

SEPT 4, 2009

SEAL

REVIEWED BY: R. WILTSE
PM/DM: T. ARTRIP
CHIEF ENG/ARCH. P. DAMMON

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
FPT GULF COAST

JOHN C. STENNIS SPACE CENTER
MISSISSIPPI

SOF RIVERINE AND COMBATANT CRAFT OPERATIONS FACILITY - PRE-FINAL

ENLARGED PLANS AND DETAILS

CODE ID. NO. N4412	SIZE D
SCALE:	AS SHOWN
MAXIMO NO.	######
STA. PROJ. NO.	P-210
WORK ORDER NO.	510247
CONSTR. CONTR. NO.	N62467-05-D-0096
NAVFAC DRAWING NO.	15026738
SHEET	91 OF 132

M4.2

DRAWFORM REVISION: 01 JAN 2009

REVISION HISTORY					

SIEMENS
New Orleans
Building Automation
150 Teal Street
Suite 100
St Rose, LA 70087
USA
Phone: (504)466-9300
Fax: (504)464-6800

SOF Riverine Warfare Center				
Stennis Space Center, MS				
ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
JWW	JWW	JWW	06/06/09	08/21/09
CAV w/o RF, CC, EHC				

SOF Riverine Warfare

02A

© COPYRIGHT 1994-09 New Orleans All Rights Reserved

C:\JOBS\SOF RIVERINE WARFARE\MDT\AHU 1A.DWG

© COPYRIGHT 1994-09 New Orleans All Rights Reserved

REVISION HISTORY					

SIEMENS
New Orleans
Building Automation
150 Teal Street
Suite 100
St Rose, LA 70087
USA
Phone: (504)466-9300
Fax: (504)464-6800

SOF Riverine Warfare Center				
Stennis Space Center, MS				
ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
JWW	JWW	JWW	06/06/09	08/21/09
AHU 1				

SOF Riverine Warfare

02

C:\JOBS\SOF RIVERINE WARFARE\MDT\AHU 1.DWG

REVDATE: FILE NAME: C:\Stennis Riverine Facility\Stennis Mechanical As-Built CAD.dwg LAYOUT NAME: M4.2 PLOTTED: Wednesday, June 09, 2010 - 6:16pm