

NOTES:

1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE SHEET M-000.
2. HWS & HWR BRANCHES TO INDIVIDUAL VAV REHEAT COILS ARE 3/4" (MINIMUM)
3. CHWS & CHWR BRANCHES TO INDIVIDUAL CRAC COILS ARE 1 1/4" (MINIMUM).
4. PROVIDE DIELECTRIC FITTINGS ON ALL PIPES PENETRATING ALL WALLS DESIGNATED AS SAPF ON DRAWING E-132.



US Army Corps
of Engineers
Mobile District

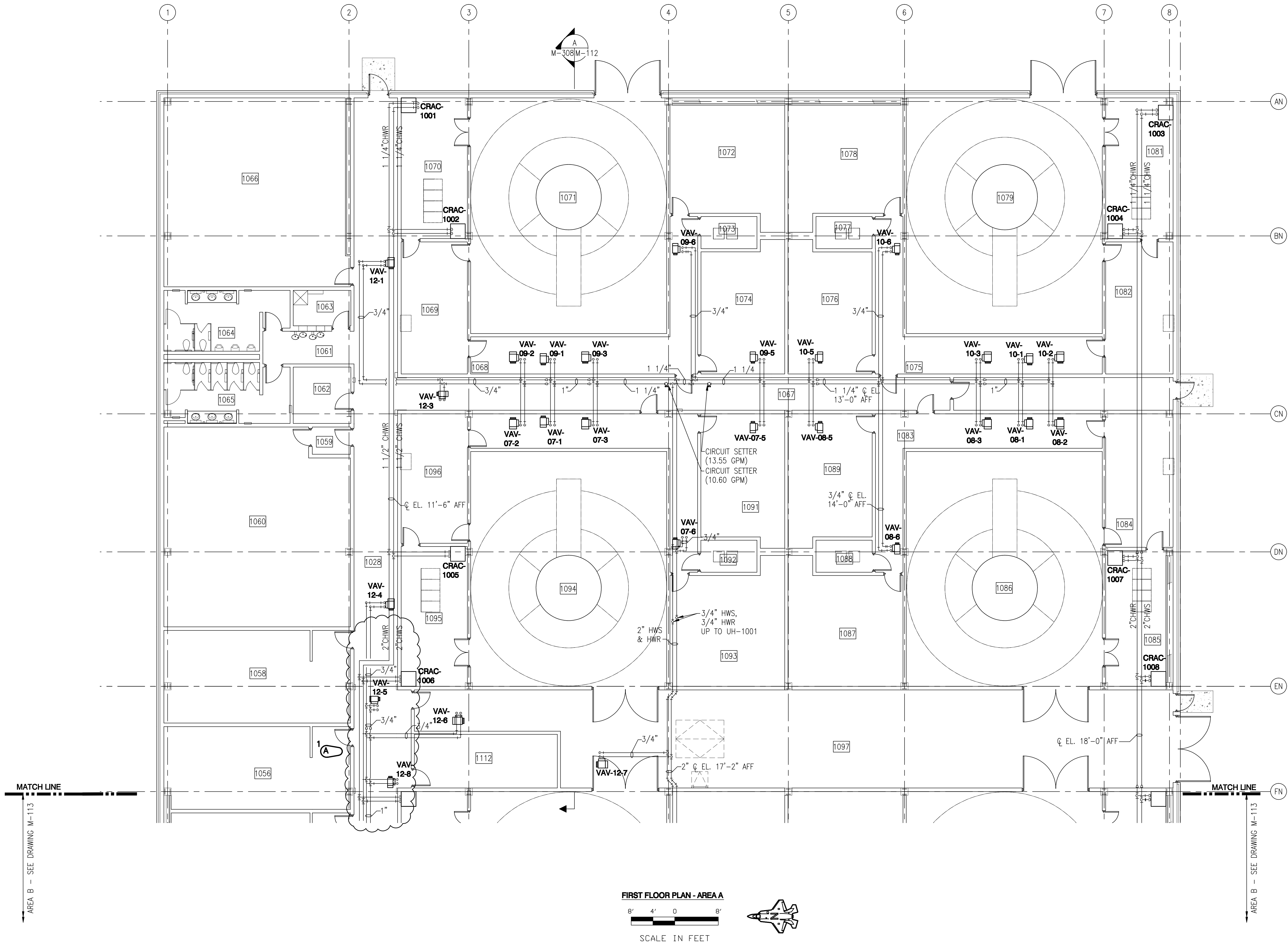
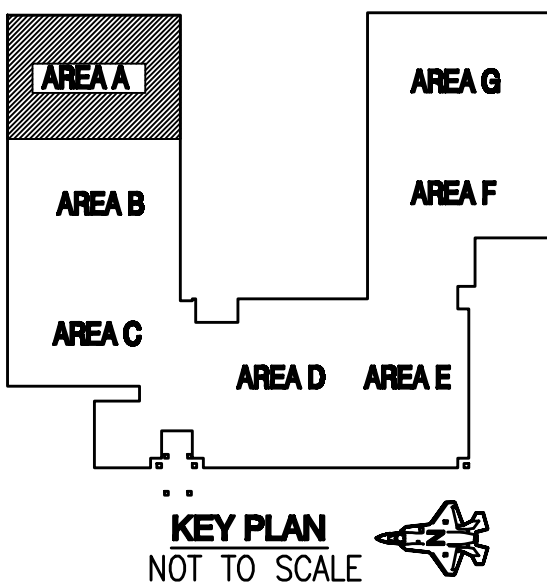
Symbol	No.	Description	Date	Approved
AS-BUILT	1	FIELD CHANGE - RELOCATED CHILLED WATER SUPPLY AND RETURN		

Designed By: V. POLAND	Date: JULY, 2008
Drawn By: R. BAILLIF	File No.:
Checked By: R. JORDAN	I.S.O. Sheet File Name: M112EB45.DWG
Reviewed By:	Solicitation Number: URGC-08-0006

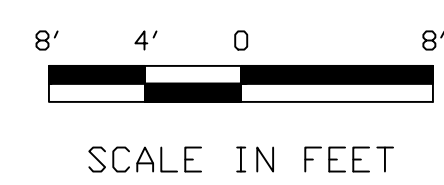
EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
MECHANICAL PIPING
FIRST FLOOR PLAN
— AREA A

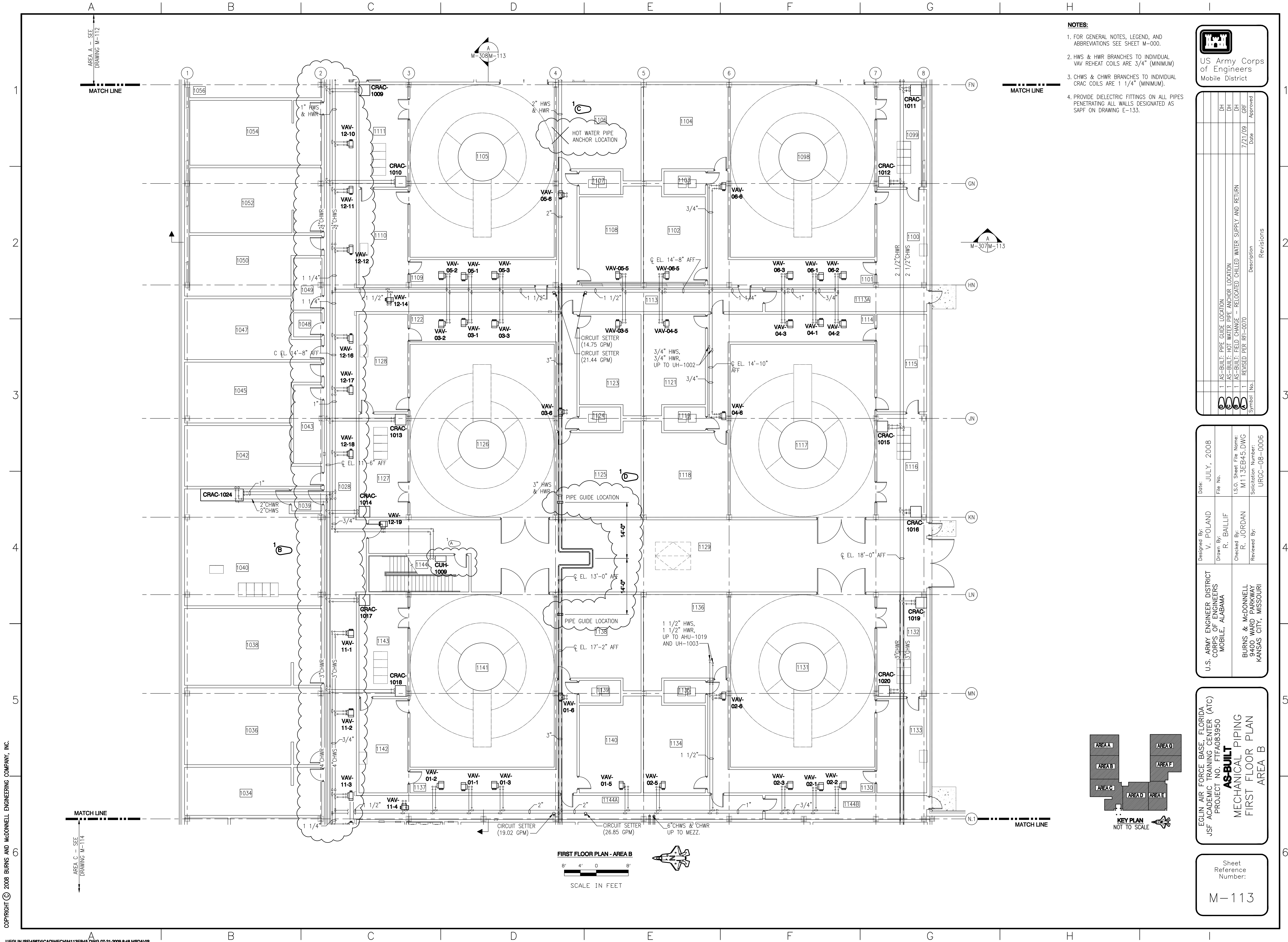
Sheet
Reference
Number:

M-112



FIRST FLOOR PLAN - AREA A





NOTES:

1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE SHEET M-000.
2. HWS & HWR BRANCHES TO INDIVIDUAL VAV REHEAT COILS ARE 3/4" (MINIMUM).
3. CHWS & CHWR BRANCHES TO INDIVIDUAL CRAC COILS ARE 1 1/4" (MINIMUM).
4. PROVIDE DIELECTRIC FITTINGS ON ALL PIPES PENETRATING ALL WALLS DESIGNATED AS SAPF ON DRAWING E-133.



US Army Corps
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Mobile District

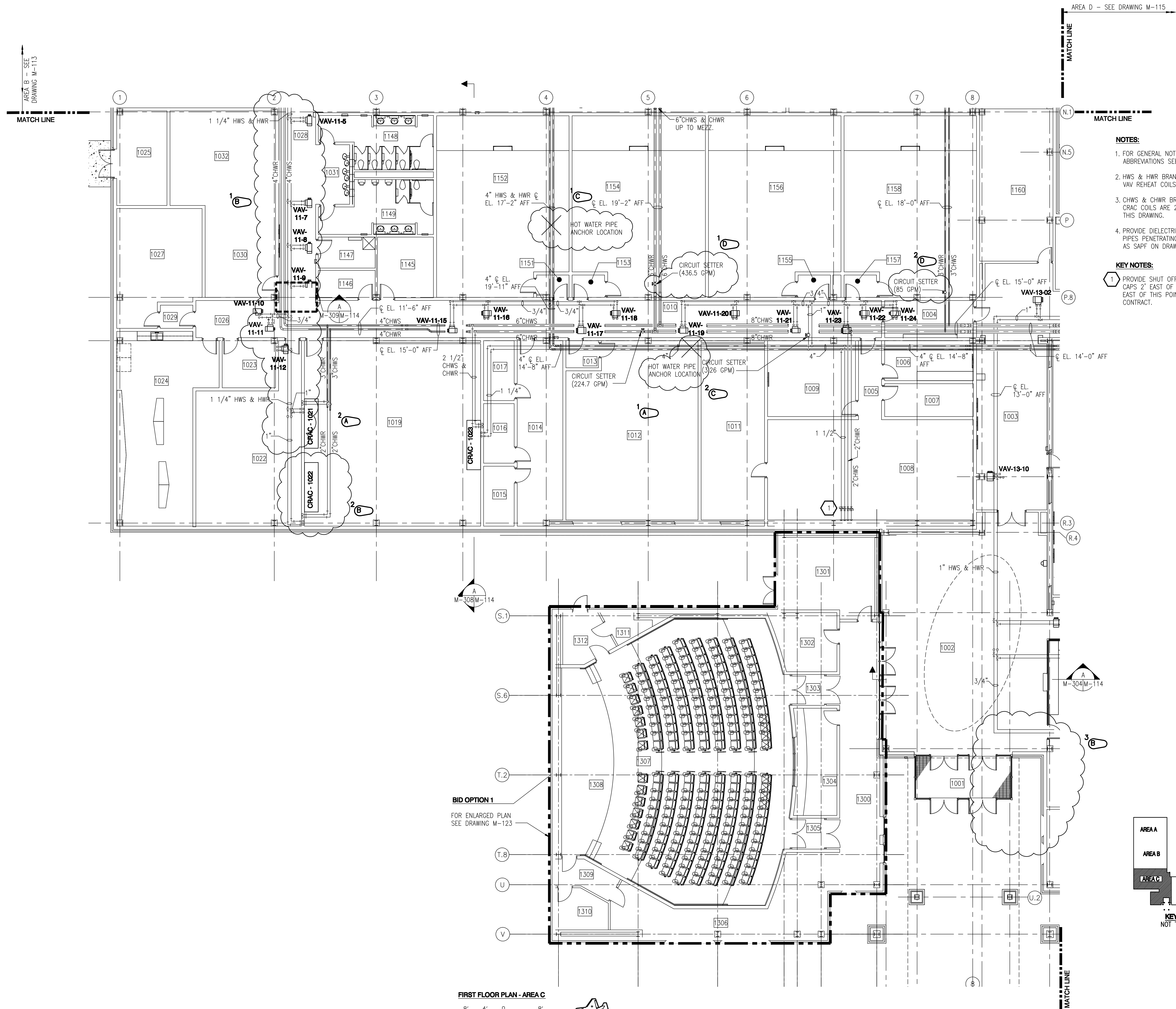
Symbol	No.	Description	Revisions
1	AS-BUILT: PIPE GUIDE LOCATION		
1	AS-BUILT: HOT WATER PIPE ANCHOR LOCATION		
1	AS-BUILT: FIELD CHANGE - RELOCATED CHILLED WATER SUPPLY AND RETURN		
1	REVISED PER RFI-0070		
		Date	7/21/09
		Approved	

Designed By:	V. POLAND	Date:	JULY, 2008
Drawn By:	R. BAILLIF	File No.	
Checked By:	R. JORDAN	I.S.O. Sheet File Name:	M113EB45.DWG
Reviewed By:		Solicitation Number:	URGC-08-0006
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA		BURNS & MCDONNELL 9400 WARD PARKWAY KANSAS CITY, MISSOURI	

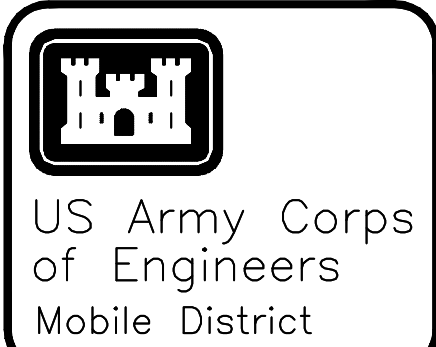
EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
MECHANICAL PIPING
FIRST FLOOR PLAN
AREA B

Sheet
Reference
Number:

M-113



- NOTES:**
1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE SHEET M-000.
 2. HWS & HWR BRANCHES TO INDIVIDUAL VAV REHEAT COILS ARE 3/4" (MINIMUM).
 3. CHWS & CHWR BRANCHES TO INDIVIDUAL CRAC COILS ARE 2 1/2" (MINIMUM) ON THIS DRAWING.
 4. PROVIDE DIELECTRIC FITTINGS ON ALL PIPES PENETRATING ALL WALLS DESIGNATED AS SAPP ON DRAWING E-134.
- KEY NOTES:**
1. PROVIDE SHUT OFF VALVES AND PIPE CAPS 2' EAST OF WALL. ALL PIPING EAST OF THIS POINT IS PART OF BASE CONTRACT.



Symbol	No.	Description	Revisions
1	AS-BUILT - RELOCATED CIRCUIT SETTERS		
2	AS-BUILT - HOT WATER PIPE ANCHOR LOCATION		
3	AS-BUILT - FIELD CHANGE - RELOCATED CHILLED WATER/HOT WATER SUPPLY AND RETURN		
2	AMENDMENT NO. 0003		
9/12/08	Date		
Approved			

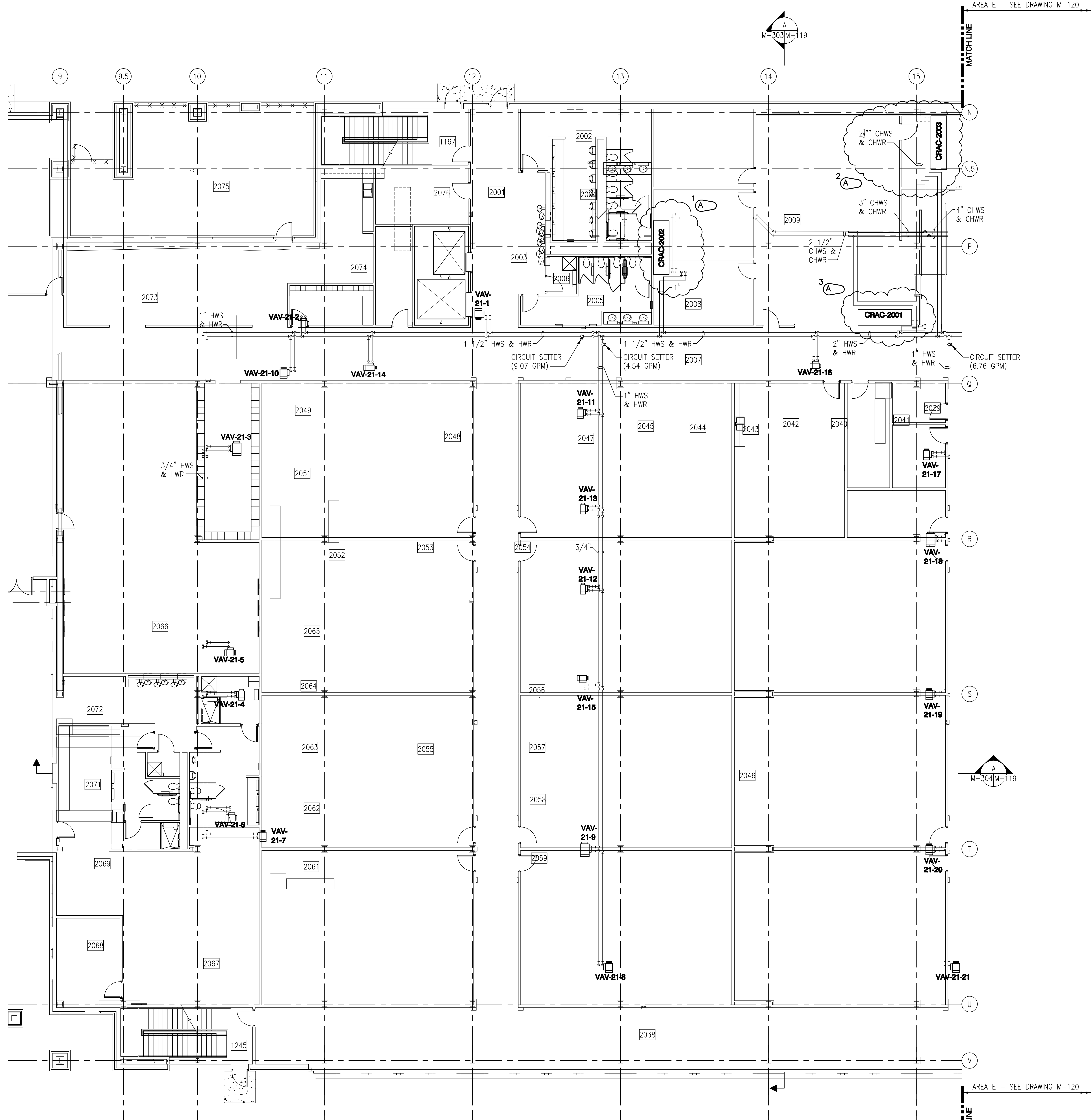
Designed By:	V. POLAND	Date:	JULY, 2008
Drawn By:	R. BAILLIF	File No.	
Checked By:	R. JORDAN	I.S.O. Sheet File Name:	M114EB45.DWG
Reviewed By:		Solicitation Number:	URGC-08-0006
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA		BURNS & MCDONNELL 9400 WARD PARKWAY KANSAS CITY, MISSOURI	

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
MECHANICAL PIPING
FIRST FLOOR PLAN
— AREA C

Sheet
Reference
Number:

M-114

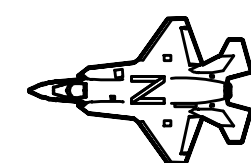
AMENDMENT NO. 0003



SECOND FLOOR PLAN - AREA D

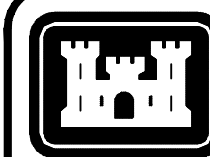
8' 4' 0' 8'

SCALE IN FEET



NOTES:

1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE SHEET M-000.
2. HWS & HWR BRANCHES TO INDIVIDUAL VAV REHEAT COILS ARE 3/4" (MINIMUM).
3. CHWS & CHWR BRANCHES TO INDIVIDUAL CRAC COILS ARE 2 1/2" (MINIMUM).



US Army Corps
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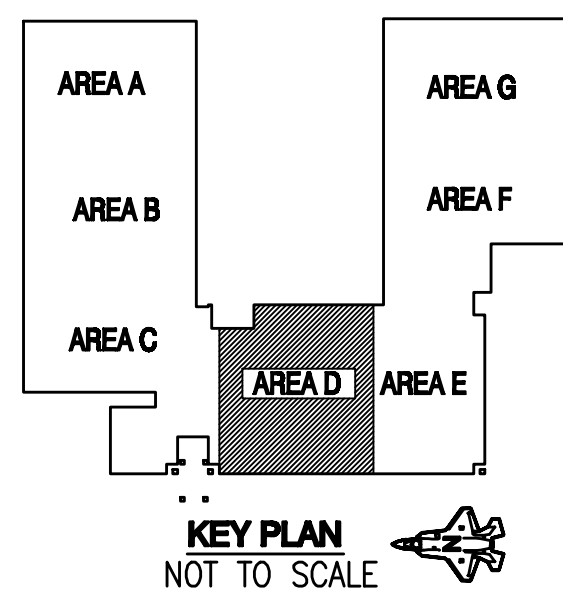
Revisions	Symbol	No.	Description	Date	Approved
3	AS-BUILT	FIELD CHANGE - RELOCATED CHILLED WATER/HOT WATER SUPPLY AND RETURN			

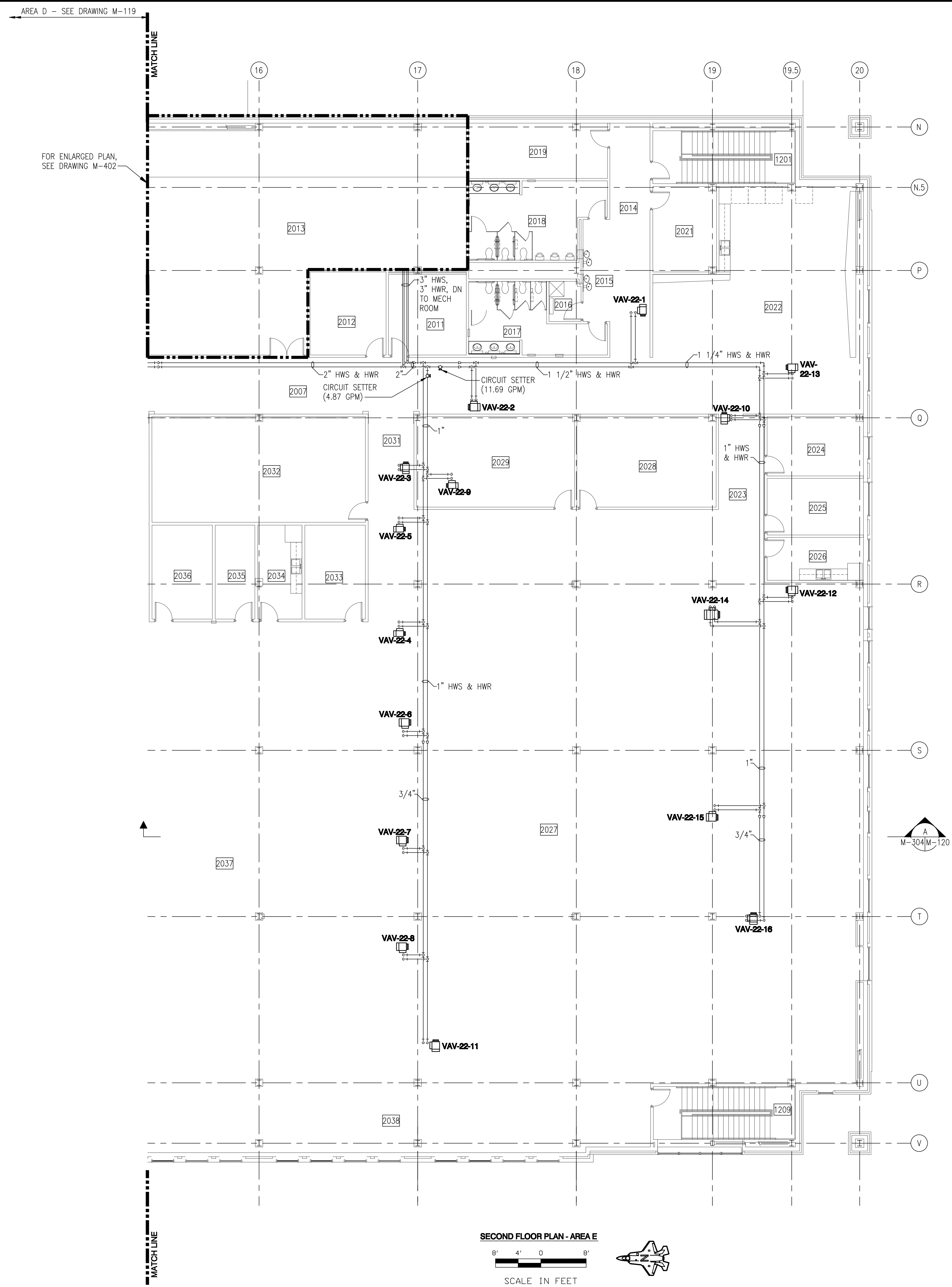
Designed By:	V. POLAND	Date:	JULY, 2008
Drawn By:	R. BAILLIF	File No.:	
Checked By:	R. JORDAN	I.S.O. Sheet File Name:	M119BA45.DWG
Reviewed By:		Solicitation Number:	URGC-08-0006

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
MECHANICAL PIPING
SECOND FLOOR PLAN
— AREA D

Sheet
Reference
Number:

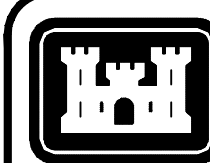
M-119





NOTES:

1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE SHEET M-000.
2. HWS & HWR BRANCHES TO INDIVIDUAL VAV REHEAT COILS ARE 3/4" (MINIMUM)



US Army Corps
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Mobile District

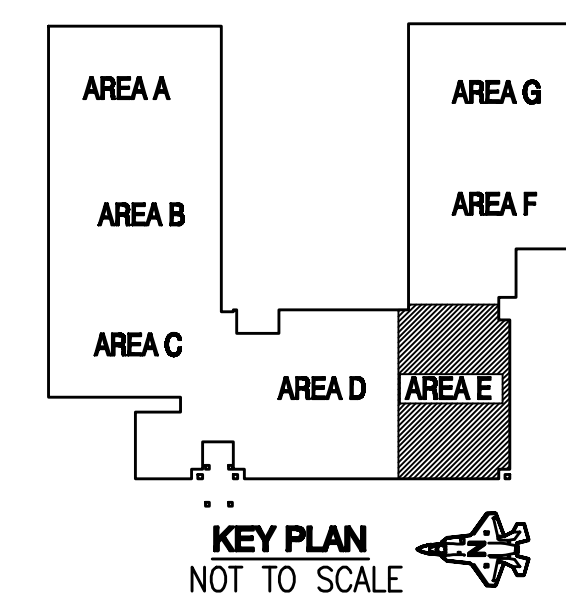
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U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA	Designed By: V. POLAND Drawn By: R. MORANDO Checked By: R. JORDAN Reviewed By:	Date: JULY, 2008 File No. U.S. Sheet File Name: M120EB45.DWG Solicitation Number: URG08-08-0006
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EGLIN AIR FORCE BASE, FLORIDA
USF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
MECHANICAL PIPING
SECOND FLOOR PLAN
— AREA E

Sheet
Reference
Number:

M-120

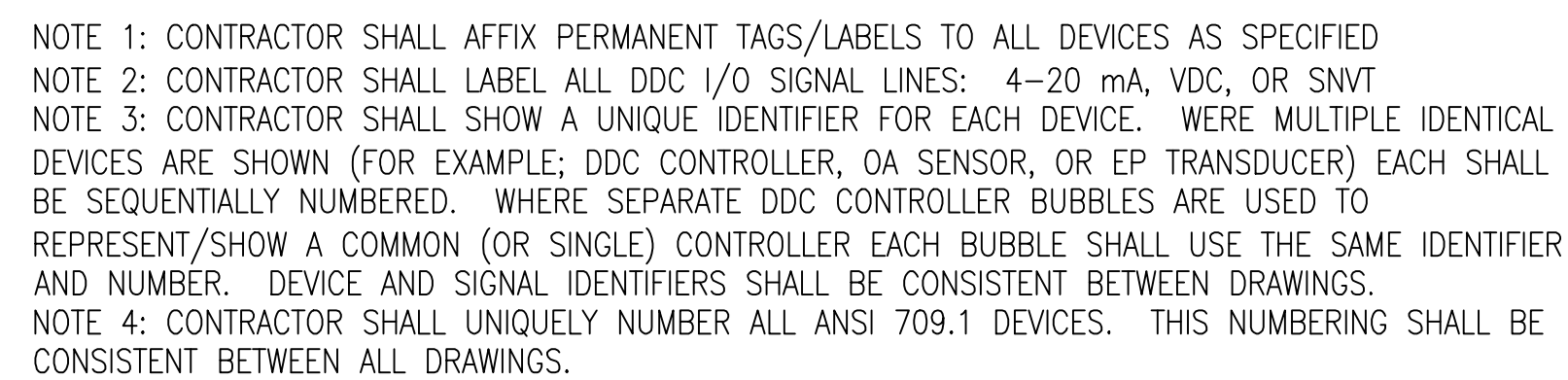


HOT WATER BOILER SCHEDULE		
NO.	HWB-1	HWB-2
LOCATION	MECH RM 1185	MECH RM 1185
TYPE	GAS-FIRED CONDENSING	GAS-FIRED CONDENSING
PRESSURE RATING (PSIG)	160	160
ALTITUDE (FT)	95	95
FLUID	HOT WATER	HOT WATER
LVG WATER TEMP (F)	160	160
ENT WATER TEMP (F)	130	130
OUTPUT RATINGS		
MINIMUM GROSS OUTPUT (MBH)	1790	1790
PRIMARY INPUT FUEL SOURCE	NATURAL GAS	NATURAL GAS
BURNER INPUT (CFH @ 1000 BTU/CF)	2000	2000
MINIMUM EFFICIENCY (%)	86	86
BLOWER MOTOR (HP)	1/2	1/2
ELECTRICAL DATA (V / PH / HZ)	460 / 3 / 60	460 / 3 / 60
REMARKS	NOTES 1,2	NOTES 1,2
NOTES:		
1. MANUFACTURER SHALL PROVIDE STARTER IN ACCORDANCE WITH DIVISION 26 SPECIFICATIONS.		
2. DISCONNECT SHALL BE PROVIDED BY DIVISION 26.		

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ELECTRICAL DATA (V / PH / HZ)	3
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COMPUTER ROOM AIR CONDITIONING UNITS - CRAC-1001 THROUGH -1024; CRAC-2001 THROUGH -2003

MODEL ID	FUNCTION	NAME	DESCRIPTION	SETTING (WITH UNITS)	RANGE (WITH UNITS)	nc/CPT NAME	IO TYPE
PROOFS & SAFETIES		<__>	<UNIT MANUFACTURER'S PROOFS> (SEE NOTES)	<__>	ALM/NORMAL	<__>	<BI>
		<__>	<UNIT MANUFACTURER'S SAFETIES> (SEE NOTES)	<__>	ALM/NORMAL	<__>	<BI>
START/STOP		SYS-OCC	OCCUPANCY INPUT (FROM SYSTEM SCHEDULER)	~	OCC/UNOCC	<__>	NVI
		SF-SS	SUPPLY FAN START/STOP	~	[OFF/L/OMED/H]	<__>	BO
		UNIT STATUS	UNIT STATUS (HTG AND/OR CLG REQUEST) (SEE NOTE)	~	HVAC_COOL/ HVAC_HEAT	<__>	NVO
ZONE TEMPERATURE CONTROL		CH-V-C	CHILLED WATER VALVE COMMAND	~	<0-100% OPEN>	<__>	AO
		HW-V-C	HOT WATER VALVE COMMAND	~	<0-100% OPEN>	<__>	AO
		ZN-T	ZONE TEMPERATURE **	~	<__>	<__>	AI
		ZN-T-SP	ZONE TEMPERATURE SETPOINT	72 DEG F	68-77 DEG F	<__>	AI
		OFF/AUTO	UNIT OFF/AUTO SWITCH	~	OFF/AUTO	<__>	BI
			CHILLED WATER VALVE PID LOOP SETTINGS	~	~	<__>	~
			HOT WATER VALVE PID LOOP SETTINGS	~	~	<__>	~

NOTE 1: CONTRACTOR SHALL AFFIX PERMANENT TAGS/LABELS TO ALL DEVICES AS SPECIFIED
NOTE 2: CONTRACTOR SHALL LABEL ALL DCDC I/O SIGNAL LINES: 4-20 mA, VDC, OR SNVT
NOTE 3: CONTRACTOR SHALL SHOW A UNIQUE IDENTIFIER FOR EACH DEVICE. WHERE MULTIPLE IDENTICAL DEVICES ARE SHOWN (FOR EXAMPLE: DDC CONTROLLER, OA SENSOR, OR EP TRANSDUCER) EACH SHALL BE SEQUENTIALLY NUMBERED. WHERE SEPARATE DDC CONTROLLER BUBBLES ARE USED TO REPRESENT/SHOW A COMMON (OR SINGLE) CONTROLLER EACH BUBBLE SHALL USE THE SAME IDENTIFIER AND NUMBERING IDENTIFIERS SHALL BE CONSISTENT BETWEEN DRAWINGS.
NOTE 4: CONTRACTOR SHALL UNIQUELY NUMBER ALL ANSI 709.1 DEVICES. THIS NUMBERING SHALL BE CONSISTENT BETWEEN ALL DRAWINGS.

ALARMS			
ALARM CONDITION (SEE NOTES)	ALARM PRIORITY	M&C ROUTING	BLDG ROUTING REQ'D
~	~	~	~
ALM		<—>	~
~	~	~	~
~	~	~	~
~	~	~	~
~	~	~	~
~	~	~	~
** ZN-T MORE THAN 77 DEG F OR BELOW 68 DEG F		<—>	~
~	~	~	~
~	~	~	~
~	~	~	~
~	~	~	~
~	~	~	~

D. SPACE TEMPERATURE CONTROL: THE DDC HARDWARE SHALL CONNECT TO THE UNITS CONTROL PANEL AND BE ABLE TO REMOTELY CONTROL AND MONITOR THE UNIT. THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE CHILLED WATER AND/OR HOT WATER VALVE(S) SHALL BE MODULATED TO MAINTAIN ZONE TEMPERATURE SETPOINT (ZN -T- SP).

[illegible]

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA	Designed By: G. FAUST Drawn By: R. BAILLIF	Date: JULY, 2008 File No.
BURNS & McDONNELL 9400 WARD PARKWAY KANSAS CITY, MISSOURI	Checked By: R. JORDAN Reviewed By:	ISO, Sheet File Name: M714EB45.DWG Solicitation Number: URGG08-09-0006

EGLIN AIR FORCE BASE, FLORIDA
F ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFQA083950
AS-BUILT
CRAC UNITS CONTROL
SCHEMATIC, SEQUENCE
& POINTS LIST

M-714

CHILLED WATER SYSTEM SEQUENCE OF OPERATION

CONTRACTOR SHALL INSTALL DDC HARDWARE TO PERFORM THIS SEQUENCE OF OPERATION AND TO PROVIDE SNVT INPUTS, OUTPUTS, AND ALARMS AS SPECIFIED AND SHOWN ON THE POINTS SCHEDULE. UNLESS OTHERWISE SPECIFIED, ALL MODULATING CONTROL SHALL BE PROPORTIONAL-INTEGRAL (PI) CONTROL.

A. SYSTEM ENABLE AND LOOP ENABLE

(1) THIS SYSTEM SHALL MONITOR THE ENABLED STATUS OF ALL SYSTEMS SERVED BY THIS SYSTEM. IF ANY SYSTEMS SERVED BY THIS SYSTEM IS ENABLED, THIS SYSTEM SHALL BE ENABLED (SYS-ENA). IF ALL SYSTEMS SERVED BY THIS SYSTEM ARE NOT ENABLED, THIS SYSTEM SHALL NOT BE ENABLED.

(2) WHEN THIS SYSTEM IS ENABLED (SYS-ENA) AND THE CHILLED WATER PUMP IS PROOFED ON, THE PRESSURE CONTROL, CHILLER CONTROL, AND CHILLED WATER TEMPERATURE CONTROL LOOPS SHALL BE ENABLED.

B. HAND-OFF-AUTO SWITCH: THE CHILLED WATER PUMP VARIABLE FREQUENCY DRIVE (VFD) SHALL HAVE AN H-O-A SWITCH:

(1) HAND: WITH THE H-O-A SWITCH IN "HAND" POSITION, THE PUMP SHALL START AND RUN CONTINUOUSLY. PUMP SPEED SHALL BE UNDER MANUAL OPERATOR CONTROL.

(2) OFF: WITH THE H-O-A SWITCH IN "OFF" POSITION, THE PUMP SHALL STOP.

(3) AUTO: WITH THE H-O-A SWITCH IN "AUTO" POSITION, THE PUMP SHALL RUN SUBJECT TO THE CHILLED WATER PUMP START/STOP (CH-PMP-SS) COMMAND, AND PUMP SPEED SHALL BE UNDER CONTROL OF THE DDC SYSTEM.

D. PROOFS AND SAFETIES:

(1) DDC HARDWARE SHALL MONITOR ALL PROOFS AND SAFETIES.

(2) PROOFS: CHILLED WATER PUMP STATUS

(3) SAFETIES: NONE

(4) DDC HARDWARE RESET OF ALL PROOFS AND SAFETIES SHALL BE VIA A LOCAL BINARY PUSH-BUTTON (RST-BUT) INPUT TO THE DDC HARDWARE, VIA A REMOTE COMMAND TO THE DDC HARDWARE VIA SNVT, OR BOTH (WHERE THE CONTRACTOR PROVIDES BOTH RESET FUNCTIONS AND THE OPERATOR CAN USE EITHER ONE TO PERFORM THE RESET), AS SHOWN ON THE POINTS SCHEDULE DRAWING.

E. PRESSURE CONTROL: WHEN THIS LOOP IS ENABLED THE DDC HARDWARE SHALL MODULATE THE PUMP VARIABLE FREQUENCY DRIVE UNIT TO MAINTAIN THE PIPE SYSTEM PRESSURE AT SETPOINT, AS MEASURED BY THE DIFFERENTIAL PRESSURE TAP AND SENSOR. IF THE LEAD PUMP IS RUNNING AT 100 PERCENT AND THE DIFFERENTIAL PRESSURE FALLS 2 PSI BELOW THE SETPOINT FOR 15 MINUTES, A LAG PUMP SHALL BE STARTED. THE OUTPUT TO THE VFD'S SHALL BE MODULATED TO SATISFY THE DIFFERENTIAL PRESSURE SETPOINT. IF THE AVERAGE SPEED OF THE LEAD AND LAG PUMPS DROPS BELOW 40%, THE LAG PUMP SHALL BE STOPPED, AND THE OUTPUT TO THE LEAD PUMP VFD SHALL MODULATE TO SATISFY THE DIFFERENTIAL PRESSURE SETPOINT. WHEN THIS LOOP IS DISABLED, THE DDC HARDWARE CAPACITY MODULATION OUTPUT TO THE VFD SHALL BE ZERO PERCENT.

THE DDC SYSTEM SHALL AUTOMATICALLY TRACK THE RUN TIME OF THE LEAD OPERATING PUMP AND AUTOMATICALLY SWITCH THE ROLE OF LEAD PUMP AFTER EVERY 100 HOURS OF OPERATION AMONG CHWP-1, -2, AND -3. A MAXIMUM OF TWO PUMPS SHALL RUN AT DESIGN CONDITIONS WITH ONE PUMP REMAINING IN STANDBY. THE STANDBY PUMP SHALL START WHEN THE DIFFERENTIAL PRESSURE SWITCH INDICATES A FAILURE OF AN OPERATING PUMP.

F. CHILLER CONTROL: WHEN THIS LOOP IS ENABLED, THE DDC HARDWARE SHALL TURN A CHILLER ON. WHEN THIS LOOP IS DISABLED, THE CHILLERS SHALL BE OFF.

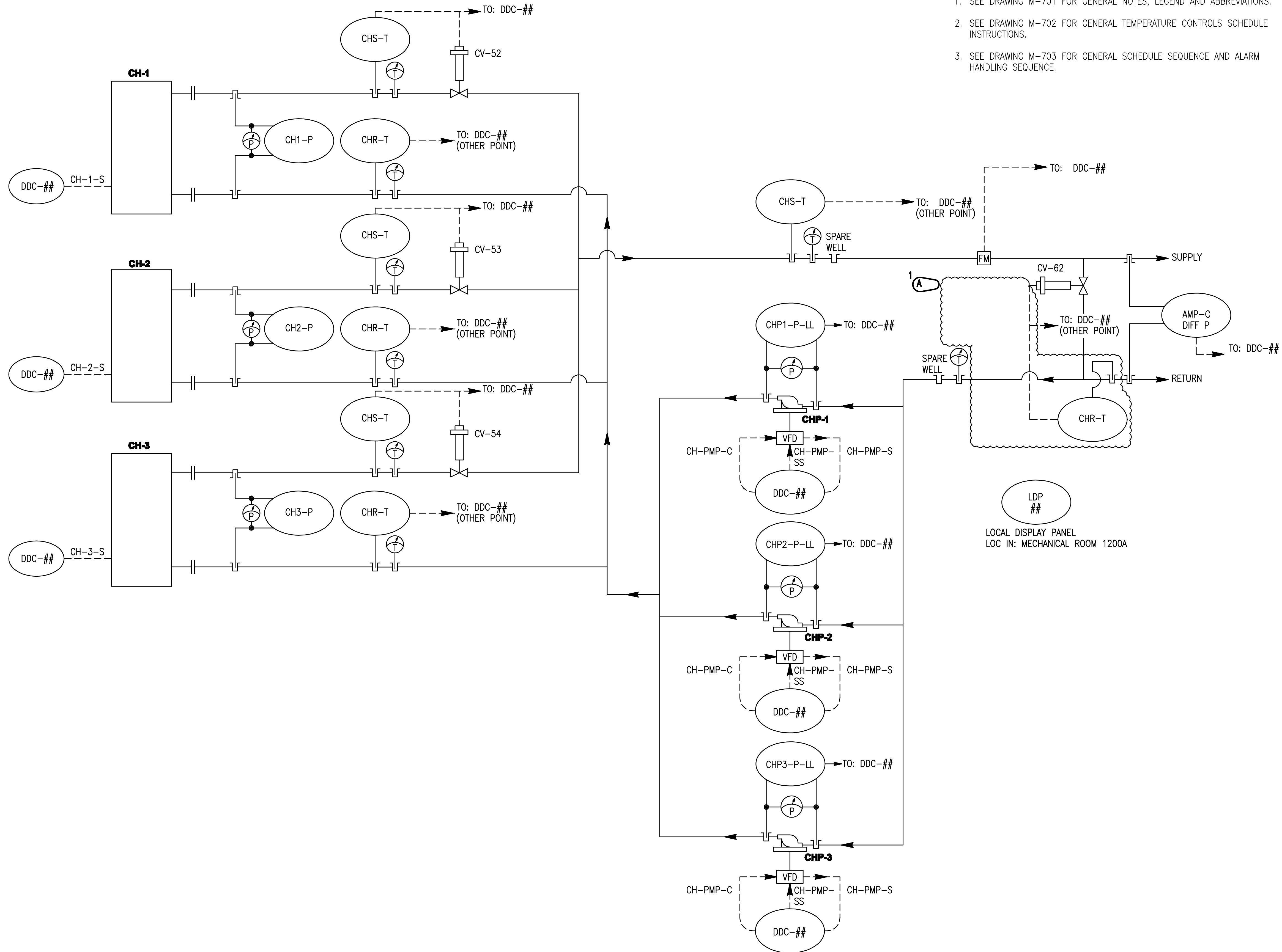
G. STARTING THE FIRST CHILLER SHALL REQUIRE THE FOLLOWING SEQUENCE (ASSUMING CHILLER CH-1 IS THE LEAD CHILLER):

1. OPEN COOLING TOWER ISOLATION VALVE CV-58.
2. OPEN CONDENSER WATER VALVE CV-55 AT CH-1. (NOTE: IF A CHILLER IS ALREADY RUNNING, START CONDENSER PUMP FIRST, AND THEN OPEN CONDENSER WATER VALVE WITH A TWO-MINUTE STROKE.)
3. START CONDENSER WATER PUMP CWP-1.
4. UPON CONFIRMATION OF FLOW, CT-1 FANS SHALL START AND RAMP UP TO SPEED TO MAINTAIN CONDENSER WATER SUPPLY TEMPERATURE SETPOINT (CWS-T-SP).
5. VERIFY CONDENSER WATER FLOW THROUGH CH-1 AS INDICATED BY PRESSURE DIFFERENTIAL SWITCH (CH1-P) AS SHOWN ON M-718.
6. START PRIMARY PUMP CHWP-1 AND SLOWLY OPEN MOTORIZED VALVE CV-52.
7. CHWP-1 VFD SHALL MODULATE TO MAINTAIN PRESSURE SETPOINT IN SYSTEM AS DESCRIBED IN E ABOVE.
8. VERIFY CHILLED WATER FLOW THROUGH CH-1 AS INDICATED BY PRESSURE DIFFERENTIAL SWITCH (CH1-P) AS SHOWN ON M-717.
9. SEND START SIGNAL TO CHILLER, CH-1. CONTROL VALVE CV-62 (BYPASS VALVE) SHALL BEGIN TO MODULATE OPEN TO MAINTAIN A CONSTANT DESIGN FLOW THROUGH CH-1.

H. CHILLER SEQUENCING: WHEN THE AVERAGE LOAD OF THE OPERATING CHILLER OR CHILLERS IS 50 PERCENT OF EACH CHILLER'S CAPACITY OR GREATER FOR 15 MINUTES, THE NEXT CHILLER SHALL BE STARTED, AND THE LOAD TO EACH CHILLER SHALL BE EQUALIZED. WHEN THE AVERAGE LOAD OF THE OPERATING CHILLER OR CHILLERS IS LESS THAN 25 PERCENT OF EACH CHILLER'S CAPACITY FOR 30 MINUTES, A LAG CHILLER SHALL BE STAGED DOWN, AND THE OPERATING CHILLER OR CHILLERS SHALL RAMP UP TO SATISFY THE BUILDING LOAD. THE DDC SYSTEM SHALL AUTOMATICALLY TRACK THE RUN TIME OF EACH CHILLER, AND SHALL AUTOMATICALLY SWITCH THE ROLE OF LEAD CHILLER AFTER EVERY 100 HOURS OF OPERATION. EACH CHILLER SHALL HAVE A MINIMUM ON-TIME OF 30 MINUTES (ADJ.) AND A MINIMUM OFF-TIME OF 30 MINUTES (ADJ.).

THE BYPASS CONTROL VALVE CV-62 SHALL MODULATE TO MAINTAIN A CONSTANT DESIGN FLOW THROUGH THE CHILLER EVAPORATORS. AS THE DIFFERENTIAL PRESSURE OF ANY OF THE CHILLERS BEGINS TO DROP WITH THE CHILLED WATER INLET VALVES IN THE FULL OPEN POSITION CV-62 SHALL BEGIN TO MODULATE OPEN. AS THE PRESSURE DIFFERENTIAL BEGINS TO RISE ABOVE THE SETPOINT, CV-62 SHALL BEGIN TO CLOSE.

I. CHILLED WATER TEMPERATURE CONTROL: WHEN THIS LOOP IS ENABLED THE CHILLER SHALL MODULATE TO MAINTAIN A CHILLED WATER SUPPLY TEMPERATURE (CHS-T) AT SETPOINT (CHS-T-SP) AND A DIFFERENTIAL TEMPERATURE (CH-T-SP) COMPARING CHILLED WATER SUPPLY TEMPERATURE (CHS-T) TO THE CHILLED WATER RETURN TEMPERATURE (CHR-T). IF THE DIFFERENTIAL TEMPERATURE FALLS BELOW 6 DEG F AND THE CHILLER IS OPERATING AT MINIMUM CAPACITY FOR 10 MINUTES OR MORE, THE CHILLER SHALL BE DE-ENERGIZED.



CHILLED WATER SYSTEM CONTROL SCHEMATIC

WATER-COOLED CHILLER

NODE: <DDC##>
NODE LOCATION: < >
NODE ADDRESS: Domain = < >, Subnet = < >, Node = < >
NODE ID: < >

CH-1, CH-2, & CH-3: POINTS SCHEDULE

FUNCTION	NAME	DESCRIPTION	SETTINGS WITH UNITS	RANGE WITH UNITS	I/O TYPE	DISPLAY REQD	M&C TREND REQD	OVRD REQD	ALARM CONDITION
PROOFS AND SAFETIES	CH-CHP1-LL	CHILLED WATER PUMP (CHP-1) PRESSURE SWITCH	< >	ON/OFF	BI	X	~	~	TRUE
	CH-CHP2-LL	CHILLED WATER PUMP (CHP-2) PRESSURE SWITCH	< >	ON/OFF	BI	X	~	~	TRUE
	CH-CHP3-LL	CHILLED WATER PUMP (CHP-3) PRESSURE SWITCH	< >	ON/OFF	BI	X	~	~	TRUE
START/STOP	SYS-ENA	SYSTEM ENABLE	~	ENABLE/DISABLE	NVI	X	~	X	~
	CH-CHP1-SS	CHILLED WATER PUMP (CHP-1) START/STOP	~	START/STOP	BO	~	~	X	~
	CH-CHP2-SS	CHILLED WATER PUMP (CHP-2) START/STOP	~	START/STOP	BO	~	~	X	~
	CH-CHP3-SS	CHILLED WATER PUMP (CHP-3) START/STOP	~	START/STOP	BO	~	~	X	~
PRESSURE CONTROL	SEC-PMP-C	CHILLED WATER VFD PUMP SPEED COMMAND	~	<0-100%>	AO	X	~	~	~
	SEC-P	CHILLED WATER SUPPLY PRESSURE	~	< >	AI	~	~	~	* CHS-P MORE THAN 25% ABOVE OR BELOW CHS-P
	SEC-P-SP	CHILLED WATER SUPPLY PRESSURE SETPOINT	< >	~	~	~	~	X	~
	CH-CHP3-SS	CHILLED WATER PUMP PID LOOP SETTINGS	< >	~	~	~	~	~	~
CHILLED WATER TEMPERATURE CONTROL	CHS-T	CHILLED WATER SUPPLY TEMPERATURE	~	< >	AI	X	X	~	* CHS-T MORE THAN 10 DEG F ABOVE OR BELOW
	CHS-T-SP	CHILLED WATER SUPPLY TEMPERATURE SETPOINT	42 DEG F	~	~	X	X	X	~
	CHR-T	CHILLED WATER RETURN TEMPERATURE	~	< >	AI	~	~	~	~
	CH-T-SP	CHILLED WATER TEMPERATURE DIFFERENTIAL SETPOINT	12 DEG F	~	~	X	~	X	~
	CH-S	CHILLER STATUS (STATE)	~	START/STOP	BI	X	X	~	~

- NOTES:
1. ALL SETPOINTS SHALL BE ADJUSTABLE
 2. ASTERISK *: ALARM CONDITION SHALL BE ACTIVE ONLY WHEN THE SYSTEM IS IN OCCUPIED MODE AND HAS BEEN IN OCCUPIED MODE FOR MORE THAN 5 MINUTES.

ABBREVIATIONS AND ACRONYMS

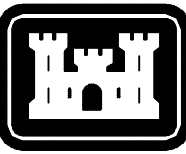
~ N/A
X REQUIRED
< > CONTRACTOR DEFINED

AI ANALOG INPUT
AO ANALOG OUTPUT
BI BINARY INPUT
BO BINARY OUTPUT

NVI NETWORK VARIABLE INPUT
NVO NETWORK VARIABLE OUTPUT

NOTES:

1. SEE DRAWING M-701 FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS.
2. SEE DRAWING M-702 FOR GENERAL TEMPERATURE CONTROLS SCHEDULE INSTRUCTIONS.
3. SEE DRAWING M-703 FOR GENERAL SCHEDULE SEQUENCE AND ALARM HANDLING SEQUENCE.



US Army Corps
of Engineers
Mobile District

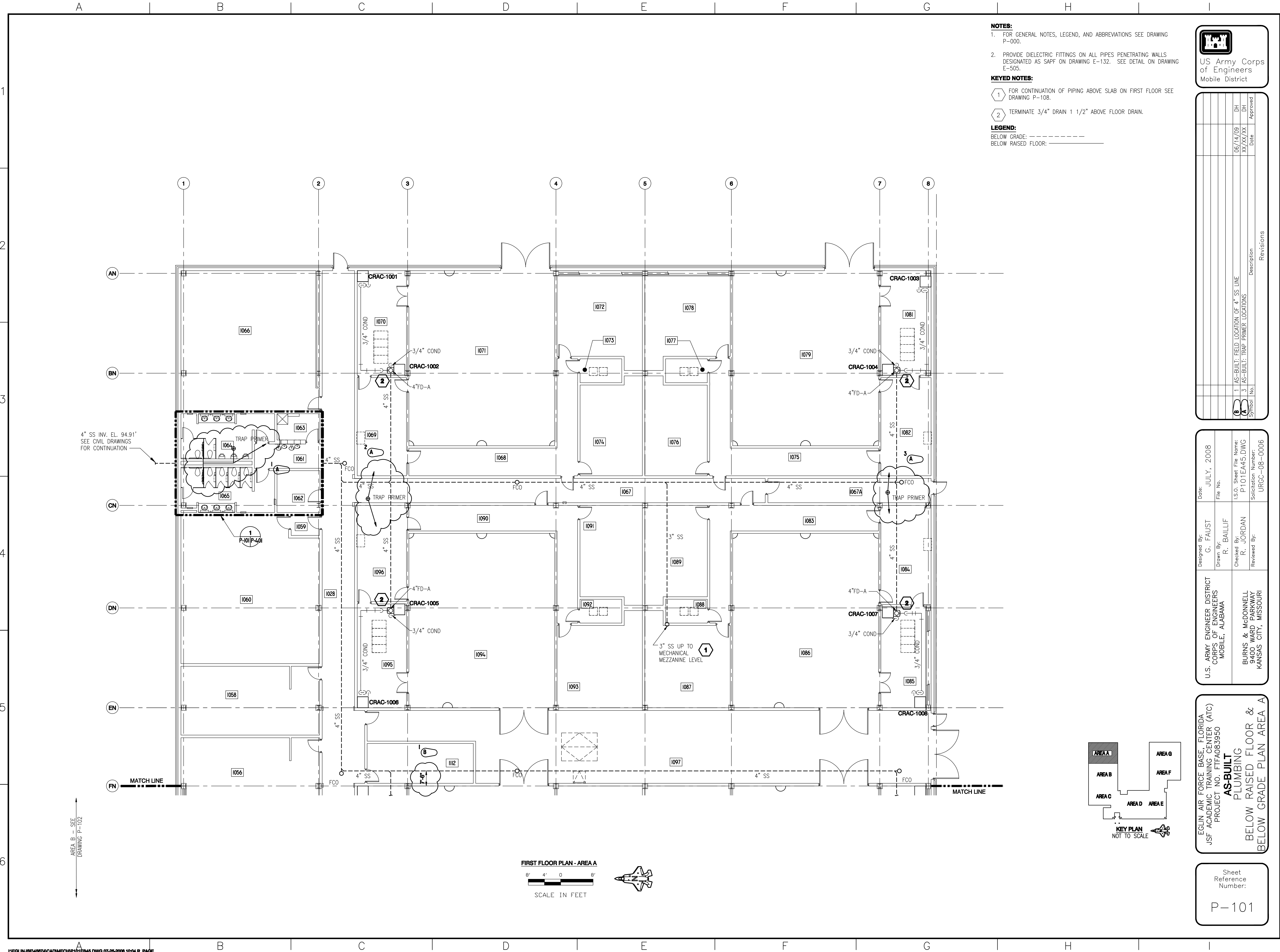
Revisions	Description	Date	SPR	Approved
2	REVISED FOR RFI 238 & 241	5/10/10		
1				

Date:	JULY, 2008
Designed By:	G. FAUST
Drawn By:	R. BAILLIF
Checked By:	R. JORDAN
Reviewed By:	
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA	I.S.O. Sheet File Name: M717EB45.DWG Solicitation Number: URCC-08-0006

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
CHILLED WATER SYSTEM
CONTROL SCHEMATIC
SEQUENCE & POINTS LIST

Sheet
Reference
Number:

M-717



US Army Corps
of Engineers
Mobile District

Symbol	No.	Description	Date	Approved
1	AS-BUILT: FIELD LOCATION OF 4" SS LINE		06/14/09	DH
2	AS-BUILT: TRAP PRIMER LOCATIONS		XX/XX/XX	DH

Designed By: G. FAUST
Drawn By: R. BAILLIF
Checked By: R. JORDAN
Reviewed By:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA

BURNS & MCDONNELL
ENGINEERS
2400 WARD PARKWAY
KANSAS CITY, MISSOURI

Date: JULY, 2008
File No.

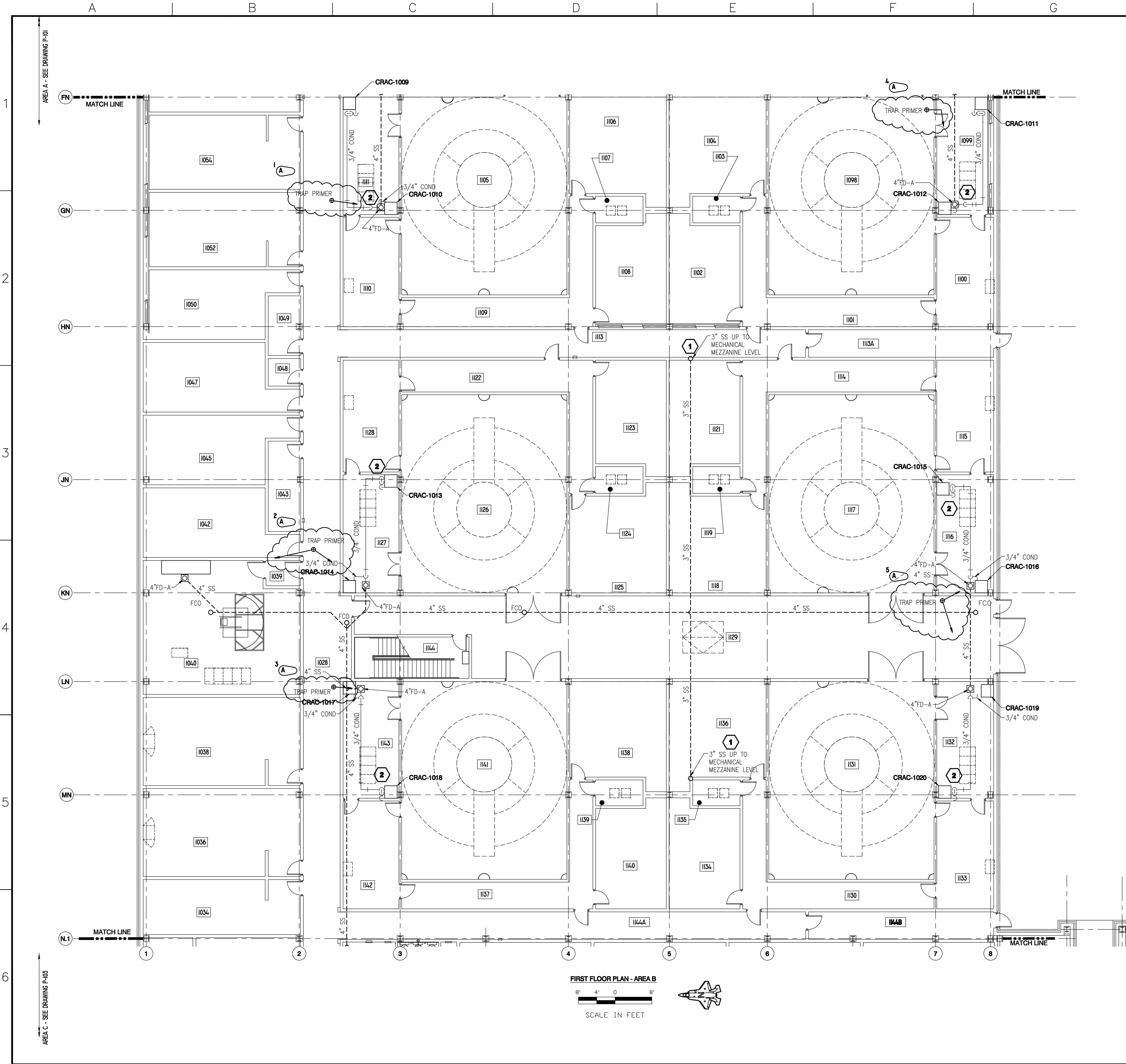
I.S.O. Sheet File Name:
P101EA45.DWG

Solicitation Number:
URCC-08-0006

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950

AS-BUILT
PLUMBING
BELOW RAISED FLOOR &
BELOW GRADE PLAN AREA A

Sheet
Reference
Number:
P-101



- NOTES:**
1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE DRAWING P-000.
 2. PROVIDE DIELECTRIC FITTINGS ON ALL PIPES PENETRATING WALLS DESIGNATED AS SAPF ON DRAWING E-133. SEE DETAIL 1 ON DRAWING E-505.
- KEYED NOTES:**
- 1 FOR CONTINUATION OF PIPING ABOVE SLAB ON FIRST FLOOR SEE DRAWING P-109.
 - 2 TERMINATE 3/4" DRAIN 1 1/2" ABOVE FLOOR DRAIN.
- LEGEND:**
- BELOW GRADE: _____
- BELOW RAISED FLOOR: _____

US Army Corps of Engineers
Mobile District

Symbol	No.	Description	Date	Approved
AS-BUILT	5	AS-BUILT - TRAP PRIMER LOCATIONS	XX/XX/XX	

Date: JULY, 2008

Designed By: G. FAUST

Drawn By: R. BAILLIF

Checked By: R. JORDAN

Reviewed By:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA

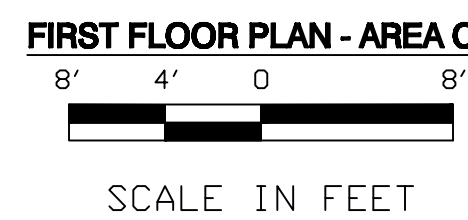
BURNS & MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MISSOURI

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950

AS-BUILT
PLUMBING
BELOW RAISED FLOOR &
BELOW GRADE PLAN AREA B

Sheet
Reference
Number:

P-102



US Army Corps
of Engineers
Mobile District

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA	Drawn By: G. FAUST R. BAILLIF	File No.	JULY, 2008
BURNS & McDONNELL 9400 WARD PARKWAY KANSAS CITY, MISSOURI	Checked By: R. JORDAN	I.S.O. Sheet File Name: P103EA45.DWG	
	Reviewed By:	Solicitation Number: URGC-08-0006	

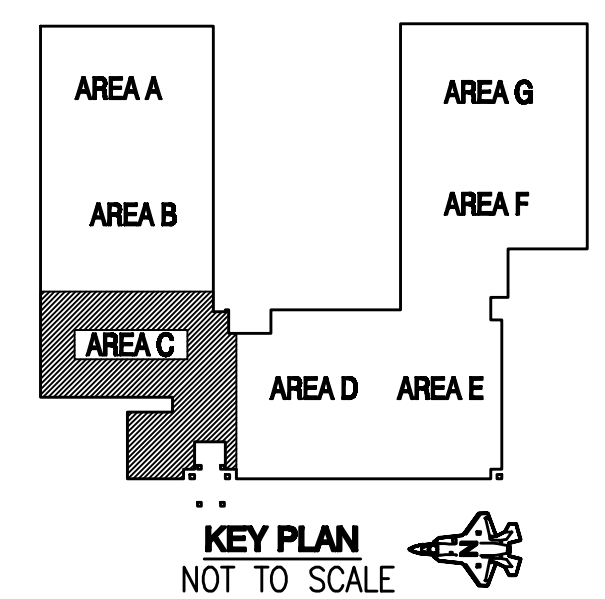
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950

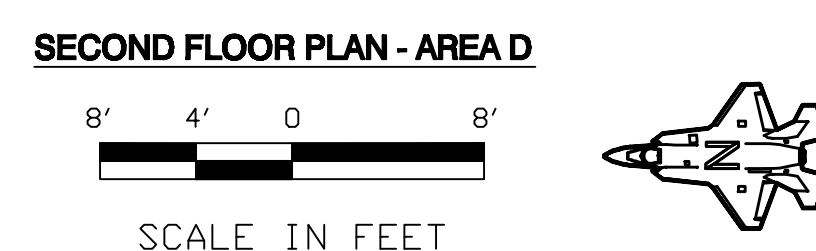
AS-BUILT
PLUMBING

BELOW RAISED FLOOR &
BELOW GRADE PLAN AREA C

Sheet
Reference
Number:

-103





NOTES:

1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE DRAWING P000.
2. FOR COMPRESSED AIR DROP DETAIL SEE DRAWING P501.

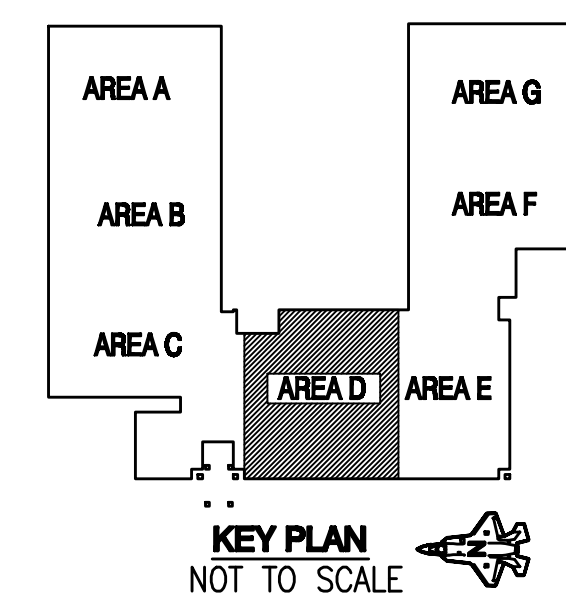
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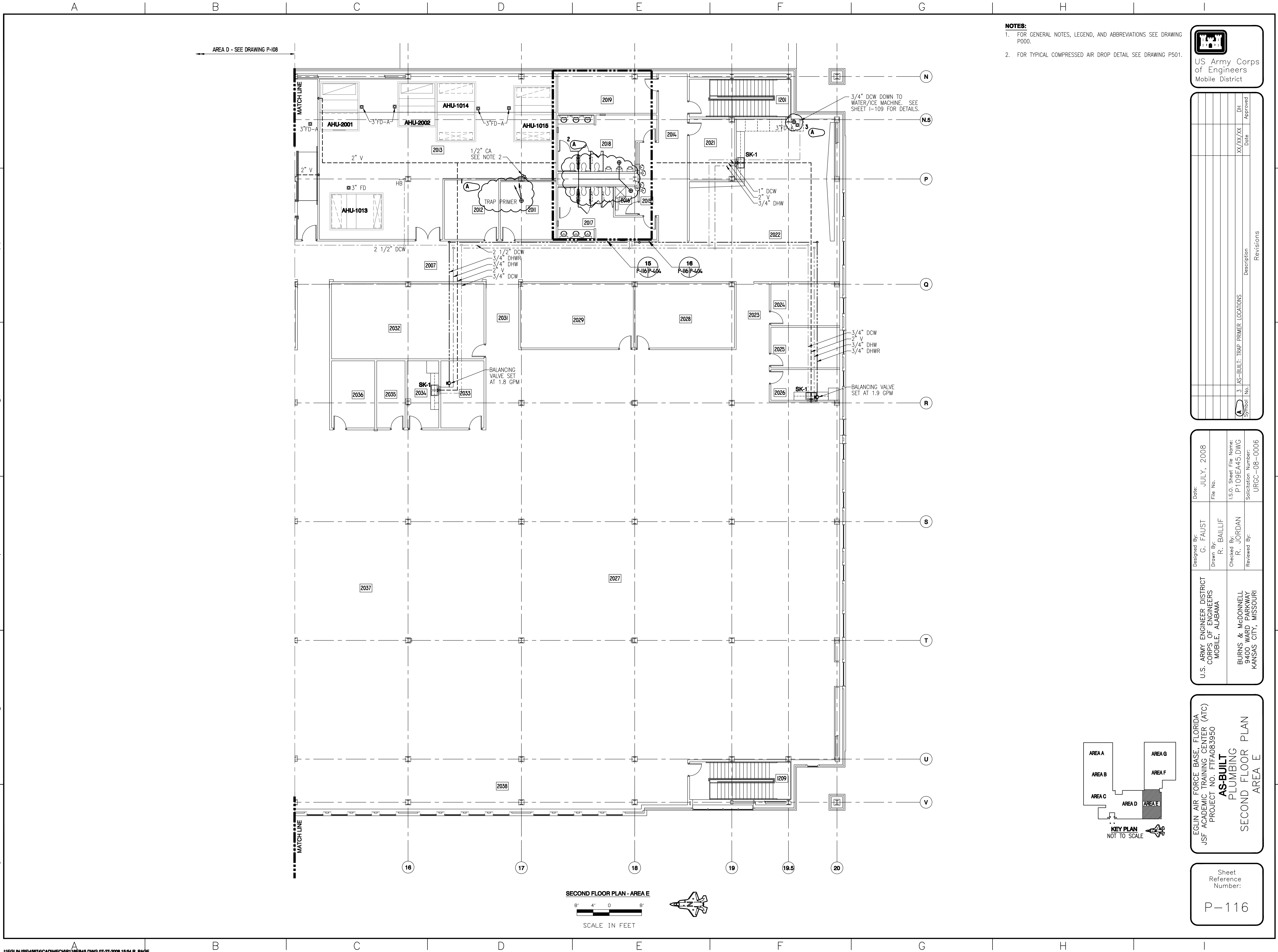
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA	Designed By: G. FAUST Drawn By: R. BAILLIF Checked By: R. JORDAN Reviewed By:	Date: JULY, 2008 File No. I.S.D. Sheet File Name: P108EA45.DWG Solicitation Number: URG08-09-0006
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EGLIN AIR FORCE BASE, FLORIDA
 USF ACADEMIC TRAINING CENTER (ATC)
 PROJECT NO. FTFA083950
AS-BUILT
 PLUMBING
 SECOND FLOOR PLAN
 AREA D

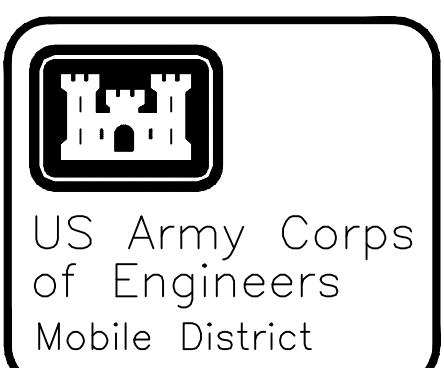
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Reference
Number:

P-115





- NOTES:**
1. FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS SEE DRAWING P000.
 2. FOR TYPICAL COMPRESSED AIR DROP DETAIL SEE DRAWING P501.



Revisions	
Symbol	Description
3	AS-BUILT: TRAP PRIMER LOCATIONS
XX/XX/XX	Date
XX/XX/XX	Approved
XX/XX/XX	DH

Designed By:	G. FAUST	Date:	JULY, 2008
Drawn By:	R. BAILLIF	File No.:	
Checked By:	R. JORDAN	I.S.O. Sheet File Name:	P109EA45.DWG
Reviewed By:		Solicitation Number:	URGC-08-0006

EGLIN AIR FORCE BASE, FLORIDA
JSF ACADEMIC TRAINING CENTER (ATC)
PROJECT NO. FTFA083950
AS-BUILT
PLUMBING
SECOND FLOOR PLAN
AREA E

Sheet
Reference
Number:
P-116