

Panel: 115-103A-2E

Supply From: CRN22 115-2
 Supply From: SMD 15-4-04
 Supply: 115-008 Wye/0-0V

Mounting: Recessed
 End Use: Type 1

A.I.C. Rating: 22,000A
 Main Type: MCS
 Main Rating: 225A


CKT	Circuit Description	Trip Poles	1	2	3	4	5	6	7	8	Circuit Description	CKT
1	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	1
2	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	2
3	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	3
4	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	4
5	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	5
6	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	6
7	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	7
8	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	8
9	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	9
10	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	10
11	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	11
12	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	12
13	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	13
14	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	14
15	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	15
16	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	16
17	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	17
18	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	18
19	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	19
20	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	20
21	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	21
22	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	22
23	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	23
24	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	24
25	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	25
26	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	26
27	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	27
28	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	28
29	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	29
30	Existing	20A 1	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing	30
31	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Existing - GFCI	31
32	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	32
33	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	33
34	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	34
35	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	35
36	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	36
37	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	37
38	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	38
39	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	39
40	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	40
41	Space	--	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	0 V/A	Space	41
Total Load:			0.00 kVA			0.00 kVA			0.00 kVA			

Notes: NEW PANELBOARD, TOTAL PROVIDE 100 A MAIN BREAKER

TOTAL CONNECTED				ESTIMATED DEMAND			



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|--------------------------------------|--|---|--|--|
| CORRECT ARC FLASH DEFICIENCIES | | Project No. 552-16-551
VA Project No.
JRS Project No. | | Office of
Construction
and Facilities
Management

 Department of
Veterans Affairs |
| Dayton, Ohio | | Building Number | | |
| 06/20/17
Checked MSG
Drawn JRS | | Drawing Number
115E001
Dep. of | | |



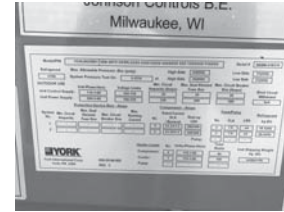
A SITE PHOTOGRAPH



B SITE PHOTOGRAPH



C SITE PHOTOGRAPH



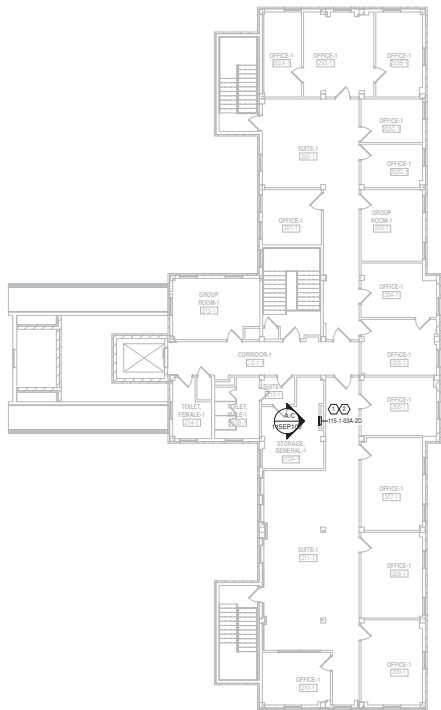
D SITE PHOTOGRAPH

GENERAL NOTES

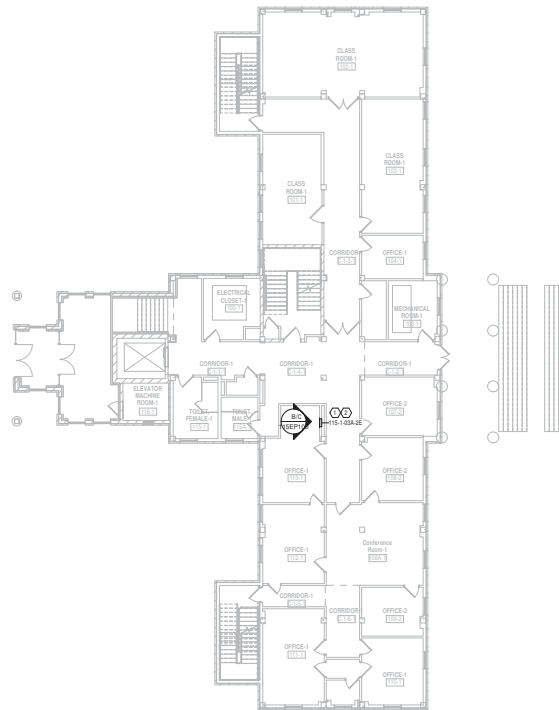
- SCHEDULE ANY OUTAGE WITH THE COR 4 WEEKS PRIOR TO PERFORMING WORK.
- WORK SHALL BE PERFORMED OUTSIDE NORMAL WORKING HOURS.
- PROVIDE DESIGNATED MESSAGE FOR ALL CIRCUITS UNLESS OTHERWISE INDICATED.
- DO NOT EXCEED 100% OF THE RATED CURRENT OF THE CIRCUIT.
- UNDER EXISTING ALI, AT EACH BRANCH CIRCUIT FED BY EACH PANEL EXISTING UNDER THIS PROJECT AND UPDATE PANEL. SCHEDULE ACCORDING TO ROOM/EQUIPMENT IT SERVES.

NOTES

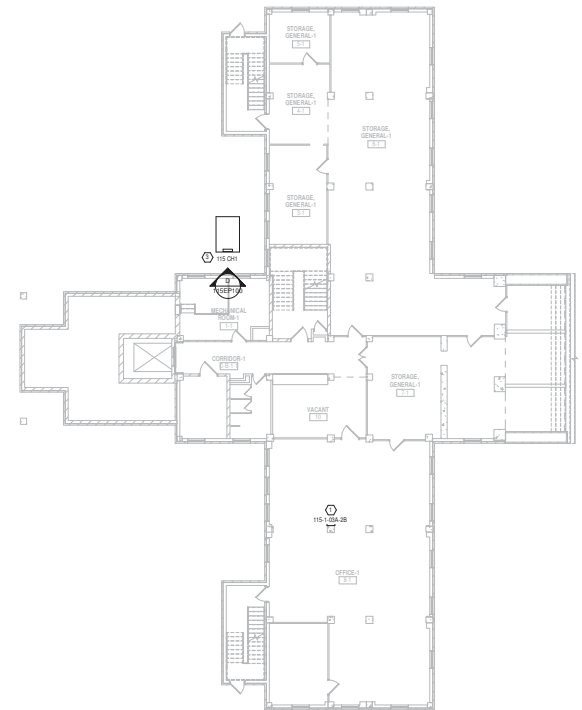
- REMOVE PANEL AND TUB. REPLACE WITH NEW. REFER TO SINGLE LINE DIAGRAM.
- RE-FRAME OF WALL SHALL BE REQUIRED TO ACCOMMODATE NEW PANEL. WORK TO BE PERFORMED BY LICENSED GENERAL CONTRACTOR. WALL FINISH TO MATCH EXISTING.
- REFER TO SHEET 115EP100 FOR CHALLER PANEL WORK.



SECOND FLOOR PLAN - POWER
Scale: 3/32" = 1'-0"



FIRST FLOOR PLAN - POWER
Scale: 3/32" = 1'-0"



BASEMENT FLOOR PLAN - POWER
Scale: 3/32" = 1'-0"

<p>7/11/2017 5:38:13 PM</p>	<p>CONSULTANTS:</p> <p>Heapy Engineering MEP Design Technology Planning Commissioning Energy Nationally Recognized Leader in Sustainability 1400 W Dorothy Lane, Dayton, OH 45409-1310 Ph 937-224-0861 Fax 937-224-5777 www.heapy.com Firm License No.: 91528</p>	<p>ARCHITECT/ENGINEERS:</p> <p>JOHN POE ARCHITECTS</p> <p>3131 BERNARD DRIVE, SUITE 200 MARIETTA, OHIO 45750 937-481-5200 PHONE 937-481-5200 FAX jpo@johnpoe.com</p>	<p>Drawing Title</p> <p>B115 BASEMENT POWER PLAN</p> <p>Approved: Project Director</p>	<p>Project Title</p> <p>CORRECT ARC FLASH DEFICIENCIES</p> <p>Location: Dayton, Ohio</p> <p>Date: 07/06/2017</p>	<p>Project No.: 520-16-551 JPA Project No.: Building Number: 115 Drawing Number: 115EP100 Dep. of</p>	<p>Office of Construction and Facilities Management Department of Veterans Affairs</p>
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Model/PSN										VCAL0052B17XB SD7K SD7K K00RUK00X 440X15XXX XXX XXXXXX F1A00K										Serial No. 88888-018370																																																																															
Refrigerant		Max. Allowable Pressure-Bar (psig)										High Side 4500/50										Low Side 316/50																																																																													
R134a		System Pressure Test On 3.2/54										at High Side										Low Side 316/50																																																																													
OUTDOOR USE		Vol-Piston-Hertz										Min. Circuit										Max. Dual Element										Max. Circuit Breaker																																																																			
Use Control Supply		115-140										Voltage Lines										20										Time Size										Size (Inch)																																																									
Use Power Supply		200-340										150-220										210										360										20										Short Circuit (Withstand)																																															
		200-340										150-220										210										360										20										10A																																															
Protection Device Size-Amm																				Compressor-Amm																				Fan-Pin																																																											
System Min. Dual										Max. Dual										Min. F.L.A										Max. F.L.A										Min. F.L.A										Max. F.L.A																																																	
10 Ampacity										Element										Breaker Size										Raising										Current										F.L.A										F.L.A																																							
1										-										-										-										7										11.5/10.5										11.5/10.5										11.5/10.5										11.5/10.5																			
2										-										-										-										-										7										11.5/10.5										11.5/10.5										11.5/10.5										11.5/10.5									
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The diagram is a top-down view of a building's floor plan, overlaid with a complex electrical wiring schematic. It shows various rooms, including what appears to be a control room, several offices or workstations, and a large open area. Red circles with numbers 1 through 5 are placed at strategic points: 1 is near the top left, 2 is near the top center, 3 is near the top right, 4 is near the bottom left, and 5 is near the bottom center. A legend in the bottom left corner shows a square symbol for 'ELECTRIC' and a triangle symbol for 'WARNING'. A label 'CO-OPERATOR CONTACTORS' is positioned at the bottom center, with a line pointing to a specific area of the diagram.

1. Move existing FSC Conductors from extent of Control Panel to by right hand side. Wire size and clearance to remain same. If required, new wires of same type and size required to be installed from existing class or free blocks and/or for motors to prevent arcing.
2. If required for installing new class 1 free block, existing class 1 free block, controllers and control transformers to be moved retaining existing wiring.
3. Install four (4) new rated 3-pole 100A, 600V class 1 free blocks one for each component. Remove from main switch to these four block using existing/wire AW106 wire and from new blocks to corresponding component controllers.
4. Replace existing control conductors type R11 E5511 with dual controllers rated for at least 200A/200V and having a listing of a short-circuit rating of at least 65kA with upstream 100A class 1 fuses (e.g. Schneider type LC1E65 rated to the one installed in block 305 Chiller/2 Control panel).

Chiller 115-1:

A.) The compressor contactors 1M, 2M, 4M and 5M (RAM Industries type R11D9511) are rated for a SCCR of 5 kA. As no documentation available on SCCR with upstream device, nor on listing, these need to be replaced with listed ones rated for at least 20HP, 80 Amperes and rated for a SCCR of at least 65kA at 208V with upstream 100 Ampere class J fuses (such as Schneider type LC1D65).

B.) For the contactors to be rated for the needed SCCR, additional suitable fuses (100A) with suitable fuse holders (100A, 600V class J fuses) have to be installed ahead of these contactors.

C.) Due to space restrictions, these new fuse holders will have to be installed at the present location of the fan contactors 7M, 8M, 10M and 11M which will have to be moved to the top right hand side of the control panel maintaining the present incoming and outgoing wiring. New wires (AWG#12) may be required for this as splicing is not acceptable.

D.) Also the fuses and controllers CR1, CR2, as well as control transformer will be required to be moved towards the right in order to make space for an additional 3 pole 100A class J fuseblock for controller 1M.

E.) Utilize existing wires from Main disconnect to compressor controllers for this (now from main disconnect to line side of new fuse blocks). New wires rated for at least 75C, AWG#6 to be utilized to connect from the load side of new fuse blocks to line side of compressor controllers.

F.) Ensure proper mounting of all components as well as proper terminations.

Fuse Replacement Markings Required:

A.) If fuses are utilized, the fuse holders shall be provided with the required fuse replacement markings.

A permanent marking shall be installed showing the fuse replacement type, current rating, and voltage rating for each fuse installed, or a table listing each fuse with its corresponding replacement marking.

Caution Marking Required:

A.) Due to the installation requirements of a short-circuit current rating (SCCR) of at least 65,000 rms symmetrical amperes, the following caution marking shall be installed in the control panel.

Warning-Risk of fire or electric shock. The opening of the branch circuit protective devices may be an indication that a fault current has been interrupted. All current carrying parts and other components protected by the branch circuit protective devices should be examined and replaced if damaged.

General Discrepancies/Information Required:

A.) The drawings should be updated after correction of discrepancies.

B.) Confirm all new components to be labelled as per schematic. Label adjacent to components, not on components and not on wireway cover.

C.) Southwest Energy Systems will be doing the inspection and labelling under a separate contract.

[illegible]

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Heapy Project No.: 2016-05088 Firm License No.: 01528



**SOUTHWEST
ENERGY
SYSTEMS**

Approved: Project Director

	Date
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Checked MDO	Drawn MDO
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 Department of
Veterans Affairs





GENERAL NOTES

A. SCHEDULE ANY OUTAGES WITH THE COR 4 WEEKS PRIOR TO PERFORMING WORK.

B. WORK SHALL BE PERFORMED OUTSIDE OF CHURCH SERVICES SCHEDULE.

1. REPLACE EXISTING 600A, 2 POLE, 240V BREAKER WITH NEW 300A, 2 POLE, 240V BREAKER. FIELD VERIFY PANEL INFORMATION PRIOR TO ORDERING.



		ARCHITECT/ENGINEERS: 		Drawing Title B118 BASEMENT POWER PLAN		Project Title CORRECT ARC FLASH DEFICIENCIES		Project No. 552-16-051 VA Project No. Building Number 118		Office of Construction and Facilities Management	
CONSULTANTS:  Heagy Engineering MEP Design/Technology Planning Commissioning Energy <i>Nationally Recognized Leader in Sustainability</i> 1400 W Dorothy Lane, Dayton, OH 45409-1310 PH 937-224-0801 Fax 937-224-5777 www.heagy.com Heagy Project No. 2015-05038 Firm License No. 01528				3131 NEWARK DRIVE, SUITE 200 MANASSAS, OHIO 937-441-2206 PHONE 937-441-2203 FAX jpoa@johnpoe.com		Location Dayton, Ohio		Drawing Number 118EP100		Department of Veterans Affairs	
Date		Approved: Project Director		Date 07/06/2017		Checked MSG		Drawn JRS		Desig. of	