Northbrook
HEALTH & REHABILITATION CENTER

Hello Kevin,

Please find attached, correspondence from MPS Engineering and Consulting Engineering Associates to address the 96 hour fuel supply and also the facility Air Conditioning requirement.

We have also attached a copy of our agreement with our generator maintenance provider (TAW) and attached recent maintenance documentation.

Please feel free to contact me if you have further questions on this matter.

Sincerely,

Steve Webber

Steve Webber

Administrator

MPS ENGINEERING

240 Pine Ave. North
Oldsmar, FL 34677

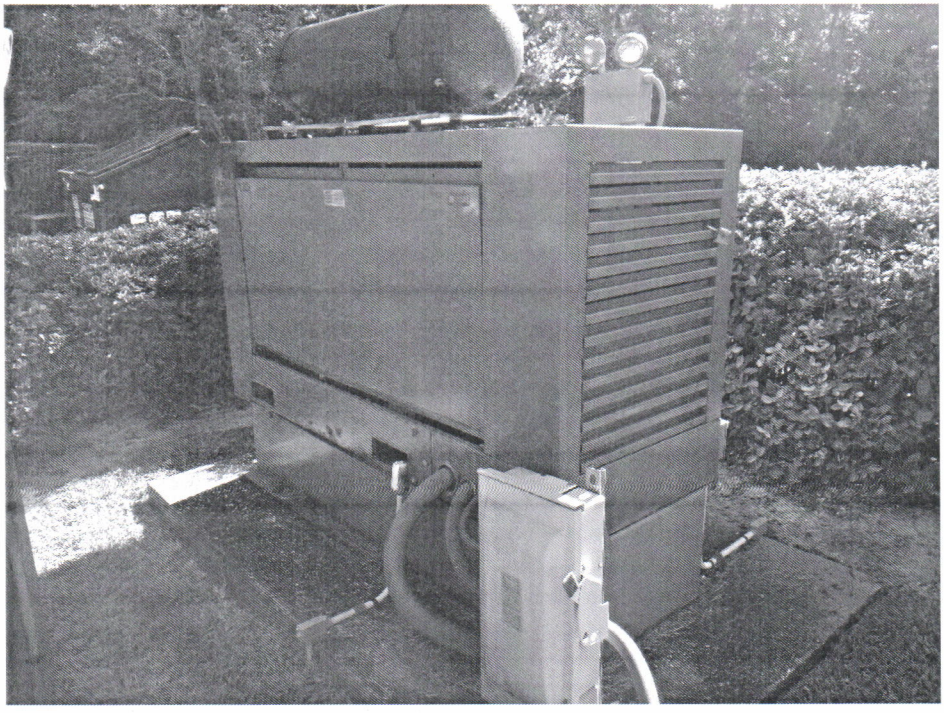
MPS ENGINEERING
www.mpseng.com
813.855.2721
AN M.P. SPYCHALA COMPANY

FIELD REPORT

Date:	**November 17, 2017**
To:	**Summit Care II, Inc.**
From:	**Scott Roper, PE**
Project:	**Northbrook Health & Rehab**
MPS Job #:	**217207**

RE: Standby Power Assessment as Related to the Governor's Emergency Rule 59AER17-1

Generator – The existing standby generator is an Onan 30KW/37.5KVA diesel with a diesel base tank. The generator is capable of providing 104 Amps at 120/208 Volts 3-phase. The generator has a 100 amp fused disconnect to protect the emergency feeds to the essential electrical system. It is located at the back of the facility in a grassy landscape area. The unit appears to be in serviceable condition and is currently serving the building's emergency electrical system. The existing critical branch transfer switch is rated at 125 Amps. The life safety branch transfer switch is rated for 125 Amps. There are no HVAC units in this facility connected to the essential electrical system.



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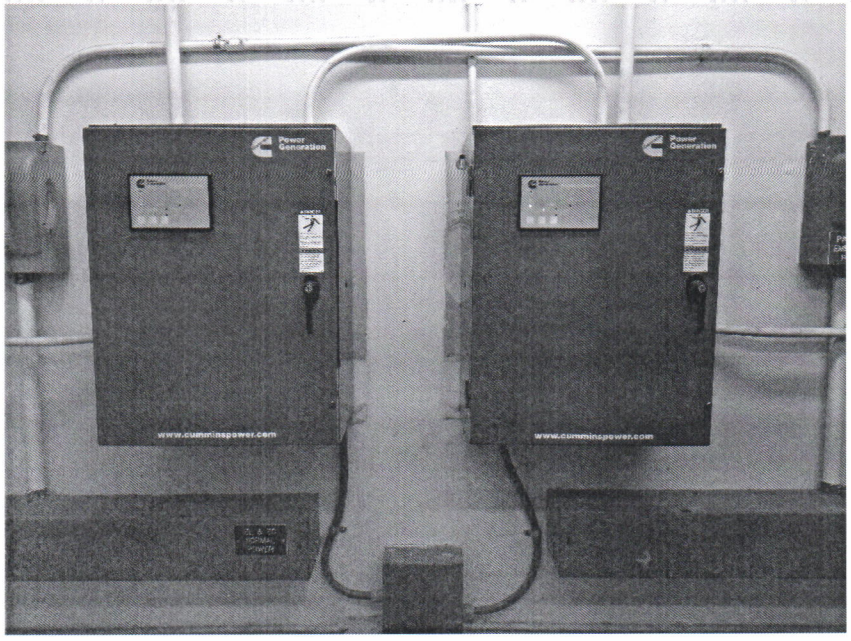

Electrical Distribution System – The system voltage is 208/120V 3 phase, 4 wire system. The existing 500 KVA pad mount utility transformer is located outside near the main electrical room. The service entrance consists of a main lug 2000 Amp switchboard with six service rated main breakers installed. The distribution equipment is all Square D and appears to be in good condition. There is no main breaker in the switchboard. The peak demand measured in April 2017 is 210KW.

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Recommendations – We have surveyed the facility and reviewed available existing plans and have the following recommendations for complying with the emergency rule.

The existing generator is loaded to near max capacity. Due to the size of the existing mechanical equipment a second generator will be required to meet the mandated cooling in the facility. That being the case, there are a few options we can recommend.

Option #1 would be to install a new dedicated optional standby generator with 96 hours of fuel capacity to power the required HVAC equipment that is needed to serve the designated lifeboat areas. The exact size of the generator and how the HVAC equipment would be connected to it would have to be determined through some additional investigative work. The fact that there are currently 6 separate mains in the building (the maximum allowed per code) makes this a more complex scenario. This option would require a new generator with properly sized base tank, a new transfer switch, new distribution panelboard, and revised wiring from the HVAC equipment to the new panelboard. A breaker would need to be placed in one of the existing panels to feed the new transfer switch. A load study may be required to determine if the existing panel can support the additional new load of the rewired HVAC equipment. A mechanical engineer will need to determine what existing or additional units will need to be on emergency power to supply cooling to the lifeboat areas that would be designated to house residents and staff during a prolonged power outage.

Option #2 would be to install a new dedicated optional standby generator with 96 hours of fuel capacity to power the whole building. The new system will consist of a new 275KW generator with properly sized base tank and a new service entrance rated transfer switch.

If you have any questions regarding the information provided above, please call for clarification.

Sincerely,

Scott Roper, PE
Principal / Electrical Engineer

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ENGINEERING
ASSOCIATES, INC.

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Tampa, Florida 33626-1608

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NORTHBROOK HEALTH AND REHABILITATION
575 LAMAR AVENUE
BROOKSVILLE, FL 34601

FLORIDA EMERGENCY RULE 59AER17-1
HVAC STUDY

Prepared for:

SUMMIT CARE II, INC.

NOVEMBER 20, 2017

Presented by:

John W. Wells, III, PE
FL PE #49347

TABLE OF CONTENTS

INTRODUCTION

Consulting Engineering Associates, Inc. (CEA) was retained by Summit Care II, Inc. to calculate the cooling requirements for the existing single story, 120-bed building located at 575 Lamar Avenue, Brooksville, FL 34601, to determine if the area to become the "Lifeboat" is in compliance with Florida Emergency Rule 59AER17-1, and has sufficient cooling capacity to keep the area below 80° F during an emergency event when the cooling system for the "Lifeboat" is on emergency power.

FIELD OBSERVATIONS AND EVALUATION

On October 30, 2017, a field visit was made by Eric O. Vieira, PE, of Consulting Engineering Associates, Inc. to obtain the HVAC equipment information serving the area of the building to become the "Lifeboat" during and after an emergency situation, such as a hurricane. For the area considered for the "Lifeboat", see **Attachment A**.

Based upon our observations and other generally accepted load factors, the following input values were found and utilized to calculate the HVAC cooling load of the "Lifeboat" area:

Lighting load: 1.5 watts/ft^2 (1)

Internal Equipment Load: 0.25 watt/ft^2 (accounts for computers and any other items which may be plugged into emergency receptacles)

People Heat Output: 250 BTU/person sensible; 200 BTU/person latent

Safety Factor: 10%

Wall Height: 8'0"

Ceiling Height: 8'0";

Indoor Temperature: 80° F

Roof U-Factor: 0.05 (R-19 insulation) [2]

Wall U-Factor: 0.054 (R-19 insulation)

Glazing: Shading Coefficient – 0.7; Double pane; U-factor summer = 0.9; U-factor winter = 0.91

People Load: 120 Residents

Outside Air Based Upon: Existing Record Documents by Leland D. Eisenhower, LTD., dated August 1, 1986.

[1] This is the assumed existing load.

[2] Record Documents by Paul G. Sieben, AIA, dated June 9, 1986, indicates the roof is insulated with R-27 batt insulation. However an insulation value of R-19 was utilized in our cooling load calculations to account for the age and non-uniformity of the insulation due to building repairs over the years.

HVAC LOAD CALCULATIONS AND EVALUATION

Utilizing the above input values, we calculated the cooling and heating requirements of the building, see **Attachment B.** In summary, our capacity load calculations indicate that a total 39.42 tons of cooling is required, including the required outside air load, to maintain the maximum indoor temperature of 80° F.

EXISTING HVAC EQUIPMENT SERVING THE "LIFEBOAT"

The "Lifeboat" area identified in the **Attachment A** section of the building is air conditioned by three (3) DX split systems, designated as AHU-1, AHU-2, and AHU-4, which were designed to provide 12,075 CFM of total supply air. The approximate date the air handler was installed is unknown from Manufacturer's nameplate information. The following is a summary of the existing equipment:

AHU / CU-1 (15-tons):

Manufacturer: Carrier

Model Number: 40RUAA16A2A6 / 38AUDA16A0B5A0A0A0

Serial Number: 0714U05214 / 4813U42658

Electrical: 208/3/60

AHU / CU-2 (10-tons):

Manufacturer: Carrier

Model Number: 40RM012 / 38AUZA12A0B5A0A0A0

Serial Number: 2306U11487 / 1513C92834

Electrical: 208/3/60

AHU / CU-4 (15-tons):

Manufacturer: Carrier

Model Number: 40RM - 016 - - B611HC / 38AKS016 - - - 521 - -

Serial Number: 0406X01150 / 3705G50071

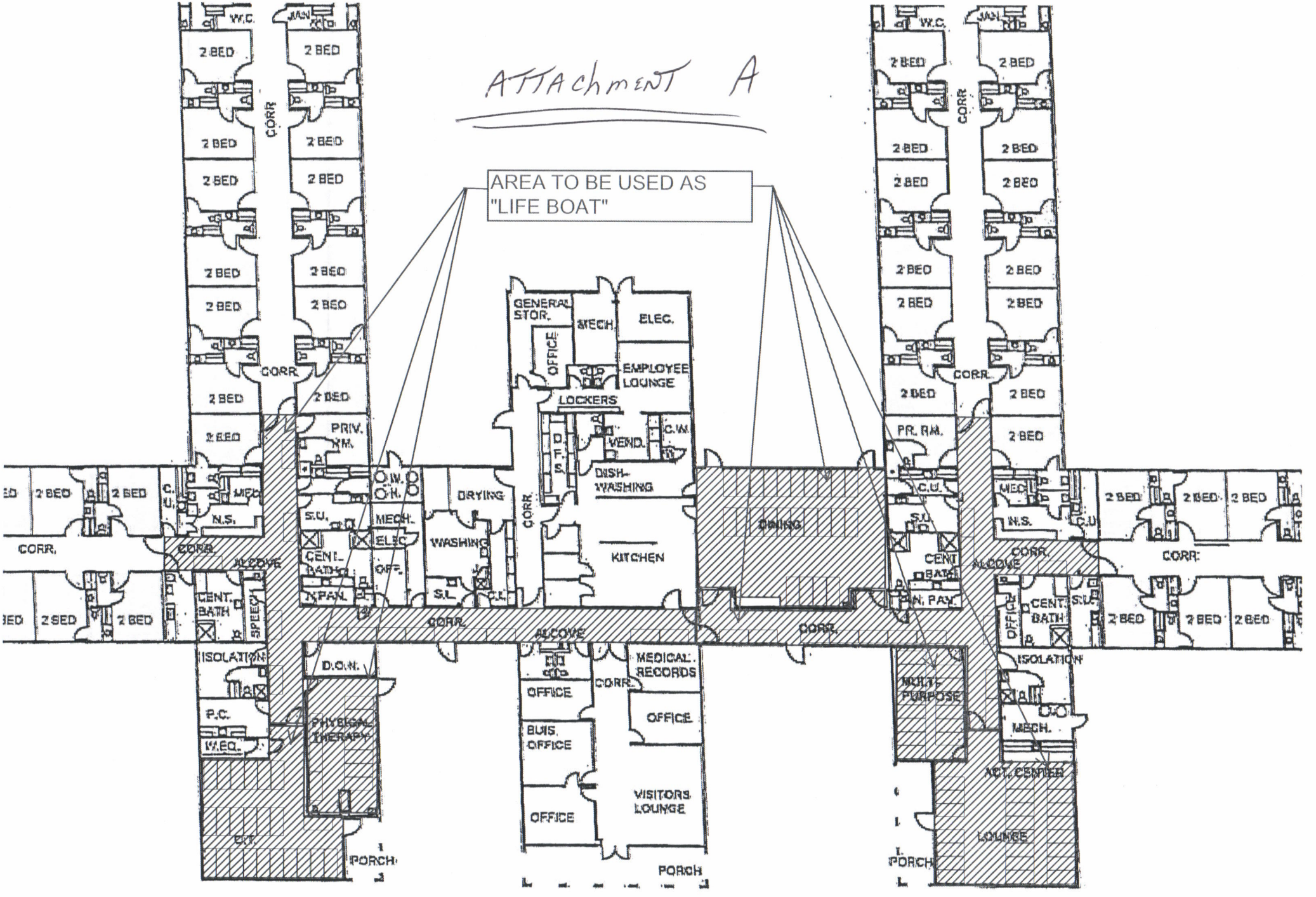
Electrical: 208/3/60

CONCLUSIONS

The existing air handlers are of sufficient size to maintain the "Lifeboat" area identified in **Attachment A** to a maximum indoor temperature of 80° F. At the time of use, all doors separating the "Lifeboat" area from adjacent unconditioned areas must be closed to minimize the cooling loss to other areas of the building which do not have their air conditioning systems on the generator.

A test of the existing HVAC equipment should be conducted on AHU-1, AHU-2, and AHU-4 by a certified Test and Balance Agency to verify that the cooling capacity available as it exists today is still in accordance with the Manufacturer's nameplate rating.

ATTACHMENT A



LIFE BOAT CALCULATIONS:	REQUIRED:	PROVIDED:
AREA OF LIFEBOAT (120 RESIDENTS @ 50 SF):	6,000 SF (50 SF/RESIDENT)	7,009 SF (58 SF/RESIDENT)

Life Boat Floor

ATTACHMENT B

17103 Northbrook Health & Rehab
HVAC Load Analysis

for

Summit Care II, Inc.

Prepared By:

John W. Wells, III, PE
Consulting Engineering Associates, Inc.
8365 Gunn Highway
Tampa, FL 33626
813-448-0225
Friday, November 17, 2017

General Project Data Input

General Project Information

Project file name:	17103-Load-Calculations.CH8
Project title:	17103 Northbrook Health & Rehab
Designed by:	Joseph B. Nicotera, EI
Project date:	Tuesday, November 14, 2017
Weather reference city:	TAMPA, FLORIDA, USA
Client name:	Summit Care II, Inc.
Company name:	Consulting Engineering Associates, Inc.
Company representative:	John W. Wells, III, PE
Company address:	8365 Gunn Highway
Company city:	Tampa, FL 33626
Company phone:	813-448-0225

Barometric pressure:	29.900	in.Hg.
Altitude:	19	feet
Latitude:	28	Degrees
Mean daily temperature range:	17	Degrees
Starting & ending time for HVAC load calculations:	1am - 12am	
Number of unique rooms in this project:	14	

Building Default Values

Calculations performed:	Both heating and cooling loads	
Lighting requirements:	1.50	Watts per square foot
Equipment requirements:	0.25	Watts per square foot
People sensible load multiplier:	250	Btuh per person
People latent load multiplier:	200	Btuh per person
Room sensible safety factor:	10	%
Room latent safety factor:	10	%
Room heating safety factor:	10	%
People diversity factor:	100	%
Lighting profile number:	1	
Equipment profile number:	1	
People profile number:	1	
Building default ceiling height:	8.00	feet
Building default wall height:	8.00	feet

Internal Operating Load Profiles (C = 100)

	hr 1	hr 2	hr 3	hr 4	hr 5	hr 6	hr 7	hr 8	hr 9	hr 10	hr 11	hr 12	hr 13	hr 14	hr 15	hr 16	hr 17	hr 18	hr 19	hr 20	hr 21	hr 22	hr 23	hr 24
1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

General Project Data Input (cont'd)

Building-Level Design Conditions

Design Month	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Diff	In/Outdoor Correction
August	91	80	50%	80	61.06	-5
June	91	80	50%	80	61.06	-5
July	91	80	50%	80	61.06	-5
September	91	80	50%	80	61.06	-5
January	79	67	50%	80	3.39	-17
December	82	69	50%	80	8.97	-14
Winter	34			70		

Master Roofs

Roof No.	ASHRAE Roof#	Roof U-Fac	Dark Color	Susp. Ceil
1	1	0.050	Yes	Yes

Roof #1 Description: Pitched roof, asphalt shingles with 5/16" plywood, suspended ceiling below with R-19 insulation

Master Walls

Wall No.	ASHRAE Group	Wall U-Fac	Wall Color
1	C	0.054	M

Wall #1 Description: Frame wall, hollow metal framing, stucco exterior, interior finish, R-19 batt insulation

Master Partitions

Partition No.	Partition U-Factor	Cool T-D	Heat T-D
1	0.360	10	20

Partition #1 Description: Frame partition, hollow metal framing, siding exterior, no insulation or finish

Master Glass

Glass No.	Summer U-Factor	Winter U-Factor	Glass Shd.Coef.	Interior Shading	Interior Shd.Coef
1	0.900	0.910	0.700	2	0.000

Glass #1 Description: 1/4" single-pane window, low e, heat-absorbing pattern, insulated metal frame, no int shading

Master Shading Devices

Shade No.	Dist Horiz Overh Projects	Dist Beyond Right W.Edge	Dist Beyond Left W.Edge	Dist Overh Above Wind	Dist Right Fin Proj	Dist R-Fin Beyond W.Edge	Ht Of Right Fin	Dist Left Fin Proj	Dist L-Fin Beyond W.Edge	Ht Of Left Fin
1	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Air Handler #1 - Existing AHU-1 - Summary Loads

Rm No	Description Room Peak Time	Area People Volume	Htg.Loss Htg.CFM CFM/Sqft	Sen.Gain Clg.CFM CFM/Sqft	Lat.Gain S.Exh W.Exh	Htg.O.A. Req.CFM Act.CFM	Clg.O.A. Req.CFM Act.CFM
1	Area 1	863	9,546	22,014	5,060	Direct	Direct
	2pm June	23	524	774	0	332	332
		6,904	0.61	0.90	0	524	320
7	Corridor	1,635	12,229	30,963	2,860	Direct	Direct
	5pm August	13	671	1,975	0	629	629
		13,080	0.41	1.21	0	671	815
8	Physical Therapy	518	2,659	10,678	2,200	Direct	Direct
	2pm December	10	146	375	0	199	199
		4,144	0.28	0.72	0	146	155
9	DON (NIC)	145	1,289	4,097	0	Direct	Direct
	2pm December	0	71	300	0	56	56
		1,160	0.49	2.07	0	71	124
10	Central Bathing (NIC)	404	3,028	5,014	0	Direct	Direct
	3pm June	0	166	325	0	155	155
		3,232	0.41	0.80	0	166	134
11	Washing (NIC)	1,504	6,791	16,603	0	Direct	Direct
	3pm June	0	373	975	0	579	579
		12,032	0.25	0.65	0	373	402
	Room Peak Totals:	5,069	35,541	89,368	10,120		
	Total Rooms: 6	46	1,950	4,725	0	1,950	1,950
	Unique Rooms: 6	40,552	0.38	0.93	0	1,950	1,950

Air Handler #1 - Existing AHU-1 - Total Load Summary

Air Handler Description:	Existing AHU-1 Constant Volume - Proportion
Supply Air Fan:	Draw-Thru with program estimated horsepower of 0.56 HP
Fan Input:	80% motor and fan efficiency with 0.6 in. water across the fan
Sensible Heat Ratio:	0.92 --- This system occurs 1 time(s) in the building. ---

Air System Peak Time:	3pm in September.
Outdoor Conditions:	Clg: 91° DB, 80° WB, 137.58 grains, Htg: 34° DB
Indoor Conditions:	Clg: 80° DB, 50% RH, Htg: 70° DB

Summer: Ventilation controls outside air, ----- Winter: Ventilation controls outside air.

Room Space sensible loss:	35,541 Btuh		
Infiltration sensible loss:	0 Btuh	0 CFM	
Outside Air sensible loss:	75,764 Btuh	1,950 CFM	
Supply Duct sensible loss:	0 Btuh		
Return Duct sensible loss:	0 Btuh		
Return Plenum sensible loss:	0 Btuh		
Total System sensible loss:			111,305 Btuh
Heating Supply Air: 35,541 / (.999 X 1.08 X 17) =		1,950 CFM	
Winter Vent Outside Air (100.0% of supply) =		1,950 CFM	
Room space sensible gain:	84,802 Btuh		
Infiltration sensible gain:	0 Btuh		
Draw-thru fan sensible gain:	1,414 Btuh		
Supply duct sensible gain:	0 Btuh		
Reserve sensible gain:	22,848 Btuh		
Total sensible gain on supply side of coil:			109,065 Btuh
Cooling Supply Air: 109,065 / (.999 X 1.1 X 21) =		4,725 CFM	
Summer Vent Outside Air (41.3% of supply) =		1,950 CFM	
Return duct sensible gain:	0 Btuh		
Return plenum sensible gain:	0 Btuh		
Outside air sensible gain:	23,579 Btuh	1,950 CFM	
Blow-thru fan sensible gain:	0 Btuh		
Total sensible gain on return side of coil:			23,579 Btuh
Total sensible gain on air handling system:			132,643 Btuh
Room space latent gain:	10,120 Btuh		
Infiltration latent gain:	0 Btuh		
Outside air latent gain:	80,925 Btuh		
Total latent gain on air handling system:			91,045 Btuh
Total system sensible and latent gain:			223,688 Btuh

Check Figures

Total Air Handler Supply Air (based on a 21° TD):	4,725	CFM
Total Air Handler Vent. Air (41.27% of Supply):	1,950	CFM
Total Conditioned Air Space:	5,069	Sq.ft
Supply Air Per Unit Area:	0.9321	CFM/Sq.ft
Area Per Cooling Capacity:	271.9	Sq.ft/Ton
Cooling Capacity Per Area:	0.0037	Tons/Sq.ft
Heating Capacity Per Area:	21.96	Btuh/Sq.ft
Total Heating Required With Outside Air:	111,305	Btuh
Total Cooling Required With Outside Air:	18.64	Tons

Air Handler #2 - Existing AHU-2 - Summary Loads

Rm No	Description Room Peak Time	Area People Volume	Htg.Loss Htg.CFM CFM/Sqft	Sen.Gain Clg.CFM CFM/Sqft	Lat.Gain S.Exh W.Exh	Htg.O.A. Req.CFM Act.CFM	Clg.O.A. Req.CFM Act.CFM
2	Dining	1,368	9,558	30,150	5,280	Direct	Direct
	11am August	24	354	1,800	0	251	251
		10,944	0.26	1.32	0	140	269
3	Dining Corridor	430	6,961	15,259	1,100	Direct	Direct
	5pm August	5	258	700	0	79	79
		3,440	0.60	1.63	0	102	104
12	Visitor Lounge (NIC)	929	17,579	32,310	0	Direct	Direct
	6pm September	0	652	850	0	170	170
		7,432	0.70	0.91	0	258	127
	Room Peak Totals:	2,727	34,097	77,718	6,380		
	Total Rooms: 3	29	1,264	3,350	0	500	500
	Unique Rooms: 3	21,816	0.46	1.23	0	500	500

Air Handler #2 - Existing AHU-2 - Total Load Summary

Air Handler Description:	Existing AHU-2 Constant Volume - Proportion
Supply Air Fan:	Draw-Thru with program estimated horsepower of 0.40 HP
Fan Input:	80% motor and fan efficiency with 0.6 in. water across the fan
Sensible Heat Ratio:	0.92 --- This system occurs 1 time(s) in the building. ---
Air System Peak Time:	6pm in September.
Outdoor Conditions:	Clg: 87° DB, 79° WB, 137.66 grains, Htg: 34° DB
Indoor Conditions:	Clg: 80° DB, 50% RH, Htg: 70° DB

Summer: Ventilation controls outside air, ----- Winter: Ventilation controls outside air.

Room Space sensible loss:	34,097	Btuh			
Infiltration sensible loss:	0	Btuh	0	CFM	
Outside Air sensible loss:	19,427	Btuh	500	CFM	
Supply Duct sensible loss:	0	Btuh			
Return Duct sensible loss:	0	Btuh			
Return Plenum sensible loss:	0	Btuh			
Total System sensible loss:					53,524 Btuh
Heating Supply Air: 34,097 / (.999 X 1.08 X 25) =			1,264	CFM	
Winter Vent Outside Air (39.6% of supply) =			500	CFM	
Room space sensible gain:	72,756	Btuh			
Infiltration sensible gain:	0	Btuh			
Draw-thru fan sensible gain:	1,002	Btuh			
Supply duct sensible gain:	0	Btuh			
Reserve sensible gain:	3,561	Btuh			
Total sensible gain on supply side of coil:					77,319 Btuh
Cooling Supply Air: 77,319 / (.999 X 1.1 X 21) =			3,349	CFM	
Summer Vent Outside Air (14.9% of supply) =			500	CFM	
Return duct sensible gain:	0	Btuh			
Return plenum sensible gain:	0	Btuh			
Outside air sensible gain:	3,847	Btuh	500	CFM	
Blow-thru fan sensible gain:	0	Btuh			
Total sensible gain on return side of coil:					3,847 Btuh
Total sensible gain on air handling system:					81,167 Btuh
Room space latent gain:	6,380	Btuh			
Infiltration latent gain:	0	Btuh			
Outside air latent gain:	20,674	Btuh			
Total latent gain on air handling system:					27,054 Btuh
Total system sensible and latent gain:					108,221 Btuh

Check Figures

Total Air Handler Supply Air (based on a 21° TD):	3,349	CFM
Total Air Handler Vent. Air (14.93% of Supply):	500	CFM
Total Conditioned Air Space:	2,727	Sq.ft
Supply Air Per Unit Area:	1.2282	CFM/Sq.ft
Area Per Cooling Capacity:	302.4	Sq.ft/Ton
Cooling Capacity Per Area:	0.0033	Tons/Sq.ft
Heating Capacity Per Area:	19.63	Btuh/Sq.ft
Total Heating Required With Outside Air:	53,524	Btuh
Total Cooling Required With Outside Air:	9.02	Tons

Air Handler #3 - Existing AHU-4 - Summary Loads

Rm No	Description Room Peak Time	Area People Volume	Htg.Loss Htg.CFM CFM/Sqft	Sen.Gain Clg.CFM CFM/Sqft	Lat.Gain S.Exh W.Exh	Htg.O.A. Req.CFM Act.CFM	Clg.O.A. Req.CFM Act.CFM
4	Corridor	1,062	6,992	16,007	1,760	Direct	Direct
	3pm June	8	259	1,550	0	196	196
		8,496	0.24	1.46	0	183	281
5	Multi-Purpose	426	1,442	8,503	3,080	Direct	Direct
	3pm June	14	53	258	0	79	79
		3,408	0.13	0.61	0	38	47
6	Lounge	1,014	13,598	30,194	5,060	Direct	Direct
	2pm September	23	504	916	0	187	187
		8,112	0.50	0.90	0	356	166
13	Central Bathing (NIC)	568	2,202	6,079	0	Direct	Direct
	3pm June	0	82	725	0	105	105
		4,544	0.14	1.28	0	58	131
14	Central Bathing (NIC)	864	3,450	9,096	0	Direct	Direct
	3pm June	0	128	550	0	159	159
		6,912	0.15	0.64	0	90	100
	Room Peak Totals:	3,934	27,684	69,879	9,900		
	Total Rooms: 5	45	1,026	3,999	0	725	725
	Unique Rooms: 5	31,472	0.26	1.02	0	725	725

Air Handler #3 - Existing AHU-4 - Total Load Summary

Air Handler Description:	Existing AHU-4 Constant Volume - Proportion
Supply Air Fan:	Draw-Thru with program estimated horsepower of 0.63 HP
Fan Input:	80% motor and fan efficiency with 0.8 in. water across the fan
Sensible Heat Ratio:	0.90 --- This system occurs 1 time(s) in the building. ---
Air System Peak Time:	3pm in September.
Outdoor Conditions:	Clg: 91° DB, 80° WB, 137.58 grains, Htg: 34° DB
Indoor Conditions:	Clg: 80° DB, 50% RH, Htg: 70° DB

Summer: Ventilation controls outside air, ----- Winter: Ventilation controls outside air.

Room Space sensible loss:	27,684	Btuh			
Infiltration sensible loss:	0	Btuh	0	CFM	
Outside Air sensible loss:	28,169	Btuh	725	CFM	
Supply Duct sensible loss:	0	Btuh			
Return Duct sensible loss:	0	Btuh			
Return Plenum sensible loss:	0	Btuh			
Total System sensible loss:					55,852 Btuh
Heating Supply Air: 27,684 / (.999 X 1.08 X 25) =			1,026	CFM	
Winter Vent Outside Air (70.7% of supply) =			725	CFM	
Room space sensible gain:	68,883	Btuh			
Infiltration sensible gain:	0	Btuh			
Draw-thru fan sensible gain:	1,596	Btuh			
Supply duct sensible gain:	0	Btuh			
Reserve sensible gain:	21,843	Btuh			
Total sensible gain on supply side of coil:					92,323 Btuh
Cooling Supply Air: 92,323 / (.999 X 1.1 X 21) =			3,999	CFM	
Summer Vent Outside Air (18.1% of supply) =			725	CFM	
Return duct sensible gain:	0	Btuh			
Return plenum sensible gain:	0	Btuh			
Outside air sensible gain:	8,766	Btuh	725	CFM	
Blow-thru fan sensible gain:	0	Btuh			
Total sensible gain on return side of coil:					8,766 Btuh
Total sensible gain on air handling system:					101,089 Btuh
Room space latent gain:	9,900	Btuh			
Infiltration latent gain:	0	Btuh			
Outside air latent gain:	30,087	Btuh			
Total latent gain on air handling system:					39,987 Btuh
Total system sensible and latent gain:					141,077 Btuh

Check Figures

Total Air Handler Supply Air (based on a 21° TD):	3,999	CFM
Total Air Handler Vent. Air (18.13% of Supply):	725	CFM
Total Conditioned Air Space:	3,934	Sq.ft
Supply Air Per Unit Area:	1.0166	CFM/Sq.ft
Area Per Cooling Capacity:	334.6	Sq.ft/Ton
Cooling Capacity Per Area:	0.0030	Tons/Sq.ft
Heating Capacity Per Area:	14.20	Btuh/Sq.ft
Total Heating Required With Outside Air:	55,852	Btuh
Total Cooling Required With Outside Air:	11.76	Tons

PREVENTIVE MAINTENANCE AGREEMENT
Engine and Generator Systems

March 9, 2012

Heartland of Brooksville ("Customer"), of **575 Lamar Avenue, Brooksville**, Florida, **34601** and **TAMPA ARMATURE WORKS, INC.**, ("Contractor or TAW") of, 6312 78th Street, Riverview Florida,33578, in consideration of the promises made in this Agreement and intending to be legally bound, agree as follows:

RECITALS

Customer owns a generator system, together with associated equipment (herein "System"), for use by Customer in providing emergency and other sources of electrical power to a facility or facilities owned or operated by Customer. Contractor is engaged in the service and maintenance of systems like the System owned or operated by Customer and has been requested to provide maintenance and/or testing to the System pursuant to the terms and conditions of this Agreement (the "Services").

MAINTENANCE SERVICES

1. Contractor shall maintain and service the System, consisting of the equipment on Exhibit "A" attached to this Agreement and incorporated herein by reference (the "Equipment"), in accordance with schedule of Services described on Exhibit "A". Contractor shall provide scheduled preventive maintenance, with the schedule to be based on the specific needs of the Equipment as determined by Contractor. In addition, Contractor may provide other remedial maintenance and/or testing at Customer's request, as and when needed. Service maintenance and/or testing may include, without limitation, lubrication, adjustments, testing, and replacement of parts and components deemed necessary by Contractor. Scheduled Maintenance shall include those items of service and/or testing described on Exhibit "A" attached hereto, to be performed by Contractor at the intervals specified hereon. Other maintenance and/or testing requested by Customer and not described on Exhibit "A" shall include those items of service requested by Customer and agreed upon by Contractor.

EXCLUSIONS

.. Unless otherwise agreed by Contractor in writing, the service and maintenance performed pursuant to this Agreement shall not include any of the following:

(a) Electrical work external to the Equipment
(b) Furnishing of supplies or accessories.
(c) Painting or refinishing the Equipment of Furnishing the material therefore.
(d) Making specification changes to the Equipment.
(e) Performing services connected with relocation of the Equipment.
(f) Repairing damage resulting from, or furnishing parts required as a result of causes other than ordinary wear and tear including, without limitation: neglect; misuse, including faulty repair or maintenance by persons other than the Contractor; accidents; failure of electrical power, air conditioning, humidity control or events outside the reasonable control of Contractor, such as, but not limited to, Acts of God.
(g) Adding, removing, servicing, or maintaining accessories, attachments, or other devices not furnished by Contractor, unless specifically scheduled on Exhibit "A".
(h) Others: _____ _____

PARTS

3. Contractor shall furnish parts as necessary at Contractor's then current scheduled price or on an exchange basis, regardless of when installed and such parts shall be either new or equivalent to new in performance when used in the Equipment.

CHARGES

4. (A) Charges for the preventive maintenance described on Exhibit "A" are described herein.
(b) Charges for on-call, unscheduled service, or for Services otherwise requested by Customer, shall be at the rates then published and agreed upon by Contractor, in writing.

PAYMENT OF CHARGES

5. Customer agrees to pay Contractor immediately upon completion for the scheduled maintenance described on Exhibit "A". Customer otherwise agrees to pay Contractor for all on-call, unscheduled or otherwise Customer requested maintenance charges immediately on completion unless otherwise agreed by Contractor in writing. If Contractor elects to accept payment from Customer other than on completion for the Services provided pursuant to this Agreement, Customer shall promptly comply with terms of payment granted by Contractor. Any payment due, shall entitle Contractor to seek, in addition to the principal amount owed, interest at eighteen percent (18%) per year or maximum rate allowable by Florida law.

TERM

6. This Agreement shall be effective from the date of its execution by Contractor and Customer and shall remain in force unless terminated, in writing, by either party giving the other thirty (30) days written notice as provided herein. However, the giving of notice of termination shall not relieve or eliminate the obligations of the Contractor and/or Customer occurring before the termination date, unless otherwise agreed by the parties hereto in writing.

WARRANTY; LIMITATION

7. (a) Contractor warrants that under normal conditions of use and operation, the Services furnished pursuant to this Agreement shall be free from defects in workmanship and that the parts furnished pursuant to this Agreement shall be free from defects in workmanship and material.

(b) Contractor's obligation under this warranty is limited to the repair or replacement, at its option, of any part that, within ninety (90) days after installation and acceptance, is established by Contractor not to be in conformity with the Equipment manufacturer's published specifications. Contractor further warrants that its Services rendered pursuant to this Agreement shall be free of defects in workmanship for ninety (90) days after performance of Services, but Contractor's obligation shall be limited to correction of the defective workmanship.

(c) The foregoing warranty and conditions shall apply only to any repaired or replaced product, part, or component supplied by Contractor, together with the workmanship as provided herein.

(d) THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

(e) Customer agrees that the sole remedies for the breach of any warranties contained in this Agreement are those expressly stated in this provision. Customer further agrees that in no event shall Contractor's liability to Customer for damages of any nature exceed the total charges paid or payable for either (1) the total charges paid or payable for all Services during one (1) year under this Agreement if the liability arises from the provision of such Services; or (2) the purchase price of the parts if the liability results from the provision of such parts.

ACCESS TO EQUIPMENT; PERFORMANCE OF SERVICES; CUSTOMER OBLIGATIONS

8. (a) Contractor's maintenance personnel shall have free access to the System and the Equipment for the purpose of providing maintenance service.

(b) During the Services provided pursuant to this Agreement as to the System, whether an interruption in electrical services in contemplated by Customer or Contractor or not, as a matter of allocating between Customer and Contractor the risks associated with an interruption in electrical services and/or taking the System off line, Customer agrees to use its best efforts to fully and completely secure all or any part of any facility in which the System is located, as the case may be, for any and all safety issues that an electrical service interruption might give rise to, including but not limited to, injury to building occupants, customers, invitees, or any third party and/or property damage, or work interruption, arising out of any event of maintenance or testing performed by Contractor as to the System. Customer agrees with Contractor that securing of the premises in order for Contractor to perform its Services is a material and critical element of this Agreement and, prior to the performance of any maintenance and/or testing Services under this Agreement, Customer will receive and execute with Contractor a written Notification and Acknowledgement of Inspection and Warning ("Notification") related to the Services provided herein. The Notification shall include Contractor's estimate as to when interruption of electrical services may occur during the performance of its obligations under this Agreement. Customer further agrees that Contractor shall have no liability to Customer or any third party for any estimate given in connection with potential interruptions in electrical services during the performance of Contractor's obligations herein, it being acknowledged by Customer that Contractor's Services are often affected by acts of third parties and/or components or elements f the System that do not allow for more specific and accurate estimates as to when an electrical service interruption may occur.

DELAYS

9. Contractor shall not be liable for any delays in performance directly or indirectly resulting from acts of Customer, its agents, employees, or subcontractors, or causes beyond the reasonable control of Contractor. "Causes beyond the reasonable control of Contractor" include, but are not limited to:

(a) Acts of God
(b) Acts of a public enemy
(c) Acts of the United States or the District of Columbia, or any State or Territory of the United States, or any of their political subdivision.
(d) Fire
(e) Flood
(f) Epidemics
(g) Quarantine restrictions
(h) Strikes, civil commotions, or revolutions
(i) Freight embargos
(j) Unusually severe weather conditions
(k) Default of Contractor's subcontractors or suppliers
(l) Normal wear and tear
(m) Overloads
(n) Improper operation and/or abuse of the System by Customer or other third parties
(o) Accidents beyond the reasonable control of Contractor.

CONSEQUENTIAL DAMAGES

10. CUSTOMER AGREES THAT CONTRACTOR SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR FOR THE LOSS OF PROFITS, REVENUES, OR ANY OTHER LOSSES ARISING OUT OF ANY DEFAULT UNDER THIS AGREEMENT, EVEN IF CONTRACTOR SHALL HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSS OR DAMAGE.

IDEMNIFICATION OF CONTRACTOR

11. Customer agrees to defend, hold harmless, and indemnify Contractor, its officers, directors, employees and agents for any and all losses, damages, and liabilities, legal or non-legal, arising out of any interruption in electrical services or as to any other incident or event as to the System which is not caused by the willful misconduct or gross negligence of Contractor. Customer further agrees with Contractor that this Agreement of indemnification shall include, without limitation, any attorney's fees, costs or other legal or non-legal expenses of any description incurred by Contractor.

TERMINATION

12. Contractor shall have the right to terminate this Agreement in the event any one of the following instances of default occurs and is not remedied within seven (7) days after receipt of a written notice thereof:

(a) Failure of Customer to pay or make financial arrangements satisfactory to Contractor for the Services described herein:

(b) Customer's failure to perform or observe any of the terms and conditions under this Agreement, including, without limitation, timely payment of any sums due Contractor;

(c) Any assignment of Customer's business or assets for the benefit of creditors;

(d) The filing of a petition in bankruptcy by or against Customer;

(e) The appointment of a receiver, trustee in bankruptcy, or similar officer to take charge of all or part of Customer's property;

(f) Others: _____

MISCELLANEOUS

13. In addition to the other terms and conditions of this Agreement, Customer and Contractor further agree that the following shall also govern this Agreement:

(a) Waiver. No waiver of any of the terms or conditions of this Agreement shall be binding or effective for any purpose unless expressed in writing and executed by the party giving the same.

(b) Governing Law; Constitution. This Agreement is being delivered and performed in the State of Florida and shall be construed in accordance with, nd governed by, the laws of the State of Florida. Venue of any action related to this Agreement shall be placed in the courts of Polk or Hillsborough ounty, Florida, exclusively. This Agreement, together with any other documents executed in conjunction with or pursuant to this Agreement shall not be construed against either Customer or Contractor, regardless of which party drafted the Agreement, it being intended this Agreement is the product of informed negotiations between both parties with full knowledge of the meaning of the terms and conditions hereto.

(c) Enforcement in connection with any action out of this Agreement, or in any way relating to the transactions contemplated hereby, the prevailing party in such action shall be entitled to recover from the non-prevailing party, all court costs and expenses of litigation, including attorney's fees, court costs, costs of investigation, accounting and other costs reasonably related to the litigation, including, but without limitation, all attorney's fees and costs subsequent to entry of any judgment on behalf of the prevailing party, on appeal, in connection with any bankruptcy proceedings, or in any alternative dispute resolution proceedings. THE PARTIES TO THIS AGREEMENT HEREBY WAIVE, WITHOUT EXCEPTION, ANY RIGHT TO JURY TRIAL RELATED TO ANY ISSUE OR MATTER ARISING OUT OF OR IN CONNECITON WITH THIS AGREEMENT.

(d) Successors and Assigns. All of the terms and conditions of this Agreement, and the rights and obligations of the parties hereunder, shall be binding upon and shall inure to the benefit of the respective heirs, personal representatives, successors and assigns of the parties hereto.

(e) Entire Agreement. This Agreement, any Agreements referenced herein and exhibits attached hereto constitute the entire Agreement and understanding of the parties with respect to the transactions contemplated hereby as an exclusive statement, and incorporate and supersede all prior and contemporaneous negotiations, agreements and understandings related to the subject matter hereof. This Agreement, referenced Agreements, and exhibits may not be amended, terminated or otherwise modified, except by a written instrument executed by all of the parties to be bound thereby.

(f) Notice. Subject to notice of change of address, in the manner provided in this Paragraph, any notice, request, instruction, or other document to be given under this Agreement by any party to any other party shall be in writing, signed by or on behalf of the party giving notice, and shall be deemed to have been given on the earlier to occur of:

1. the date of actual delivery; or
2. five (5) days after the date on which such notice is mailed by United States Mail, postage prepaid to each party at the addresses listed below; or
3. the date of electronic facsimile transmission that is verified by the issuance of a successful facsimile transmission report at the facsimile telephone number for the receiving party, which is currently on file with the sending party; or the business day following the day on which such notice is sent by any next day or overnight delivery service to each party at the address listed below.

(g) All scheduled PM appointments canceled by customer when technician arrives at site will be subject to a cancellation fee. A three (3) hour minimum Service call charge will be charged to customer.

If to the customer: Heartland of Brooksville
575 Lamar Avenue
Brooksville Florida 34601

Phone: 352-799-2226
Fax: 352-799-3368

If to the Contractor: Tampa Armature Works, Inc.
Attn: Tom Phillips
6312 78th Street
Riverview, FL 33569
Phone: 800-456-9449
Fax: 813-217-8074

With copy to: James A. Turner III
Tampa Armature Works, Inc.
6312 78th Street
Riverview, FL 33578

Neither party shall hold the other in default hereunder without first giving seven (7) days written notice of default and specifying the action required to cure the default.

Please print and sign both areas of the contract including the Exhibit page.

CUSTOMER: Tabby McCleary

Signed By: Tabby McCleary Title: Administrator

Print Name: TABBY McCREARY Date: 3/28/2012

CONTRACTOR
Tampa Armature Works, Inc.

By: John St. Louis

As its: Account Representative

PROPOSAL EXHIBIT A
PREVENTATIVE MAINTENANCE PROPOSAL
ENGINE-GENERATOR SYSTEMS
SEMI-ANNUAL INSPECTION
Proposal #

March 9, 2012

Upon acceptance of this proposal TAW will perform the services listed below, TAW will inspect during business hours at least 2 times each year while this agreement remains in effect. These inspections will include:

- [X] Lube, oil and filter change (Once/year)
- [X] Fuel filter change (Once/year)
- [X] Check air cleaner (Once/year)
- [X] Check coolant level
- [X] Test anti-freeze and adjust
- [X] Inspect belts condition
- [X] Check engine heater operation
- [X] Inspect air intakes and outlets
- [X] Check transfer tank operation
- [X] Drain exhaust line
- [X] Inspect silencer
- [X] Check battery charger operation and charging rate
- [X] Check battery electrolyte levels and specific gravity
- [X] Emergency system operation without load transfer
- [X] *Emergency system operation with load transfer(If Allowed)
- [X] Frequency check/governor adjustment
- [X] **Confirm transfer switch and accessory operation
- [X] Check alternator charge rate
- [X] Confirm engine and generator gauge operation
- [X] Confirm generator controller operation
- [X] Check unit output voltage and adjust as necessary
- [X] Check Fuel Tank Level
- [X] Inspect fuel line and electrical connections
- [Na] Annual Fuel Analysis (Optional $95.00)
- [Na] Annual Oil Analysis (Optional $40.00)
- [Na] Annual Coolant Analysis (Optional $55.00)
- [Na] Annual Resistive Load Bank Test 2 Hour (Optional)
- [Na] Check Interstitial/leak alarm in double wall diesel fuel tank (Optional $75.00 Once/Year)
- [Na] Resistive Load Bank Test 4 Hour (Optional Every 3rd Year)

**** Where Applicable and With Customer Written Permission.**

Contract price is based on normal business hours (8:00 AM to 4:30 PM Monday through Friday)

Manufacturer / KW	Model	Serial Number	Location	Major	1 Semi Minor(s) @	Sub-Total
Onan	30DL6	K860856086	575 Lamar Ave	$418.75	$206.25	$625.00
Onan	LT	TBD	Same as Above	$0.00	$0.00	Included
					SUB-TOTAL	$625.00

2 Hour Load Bank Testing: (Optional) $0.00 4 Hour Load Bank Testing (Optional) $0.00

Sub-Total: $625.00

State Sales Tax: $37.50

County Sales Tax: $6.25

Total: $668.75

All Sales Tax is due on all work unless a valid tax-exempt certificate is supplied.
This proposal is open for acceptance for 30 days.
Terms & Conditions: TAW Preventative Maintenance Agreement & Notification incorporated herein.
Proposal Acceptance

Customer 3/28/12 Date

Tampa Armature Works, Inc. Date

****CONTRACT IS NON-BINDING IF NOT SIGNED BY BOTH THE CUSTOMER AND THE CONTRACTOR****

TAW Power Systems, Inc.

TAW Service Order

6312 78TH STREET
RIVERVIEW, FL 33578
Tel: 800-456-9449
Fax: (813) 217-8462

BILL TO: 201551 **Net 30 days**
NORTHBROOK HEALTH & REHAB CENTER
575 LAMAR AVE
BROOKSVILLE, FL 34601

(352)799-2226

SHIP TO: 201551
NORTHBROOK HEALTH & REHAB
575 LAMAR AVE
BROOKSVILLE , FL 34601

Lat.: 28.550488
Lon.: -82.393650

c24 BATT (1)

Service ID.....: SO26450887
Agreement...:
Service type.: TM

Major .....: No
Tech .....: CRAWFORD VINCENT J
Preferred: 10/6/2017

Customer PO.:
Caller name...: DEAN
Caller phone..: 727-277-3639

Serial No.: K860856086
Model no : 30.ODL6-15R/245100
Kilowatts : 30 **Volt:** 208 **Phase:** 3

REPLACE BATTERY DURING GENERATOR MAINTENANCE

Qty	Part numbe	Descriptio	Tech note
1.00	24-700	Battery,Vehicle,24,700-999CCA,Top Post	Replace Batt at PM

Tech signature _____
Date.....: 10/6/17
Hours.....: 655.5

TERMS & CONDITIONS: I have read and agree to the TAW terms and conditions available at www.tawinc.com. Agreed by:

Date: ___/___/___

WORK AUTHORIZATION: This labor and material is ordered by me for which I have the authority to order. Authorzied by:

Date: ___/___/___

WORK ACCEPTANCE: Having examined the work done, both work and materials are satisfactory. Accepted by:

Date: ___/___/___

TAW Power Systems, Inc. 9/27 Weds

TAW Service Order

6312 78TH STREE
RIVERVIEW, FL 3357
Tel: 800-456-944
Fax: (813) 217-846

BILL TO: 201551 **Net 30 days**
NORTHBROOK HEALTH & REHAB CENTER
575 LAMAR AVE
BROOKSVILLE, FL 34601

(352)799-2226

SHIP TO: 201551
NORTHBROOK HEALTH & REHAB
575 LAMAR AVE
BROOKSVILLE , FL 34601

Lat.: 28.550488
Lon.: -82.393650

LOADBANK PAPERWORK

Service ID .: SO26443395
Agreement .: SA26325101
Service type : LB

Major ..: No
Tech ...: ~~Unassigned Tech~~ V. Crawford
Preferred: 9/1/2017

Customer PO : 00430100
Caller name .: DEAN
Caller phone : 727-277-3639

Serial No : K860856086
Model no : 30.ODL6-15R/245100
Kilowatts : 30 **Volt:** 208 **Phase:** 3

PERFORM 4 HOUR LOAD BANK

Qty	Part number	Description	Tech note
			load test comp w/in Note

Tech signature: [signature]
Date ....: 10/6/17
Hours ....: 655.5

TERMS & CONDITIONS: I have read and agree to the TAW terms and conditions available at www.tawinc.com. Agreed by: [signature]

Date: ___/___/___

WORK AUTHORIZATION: This labor and material is ordered by me for which I have the authority to order. Authorzied by: [signature]

Date: ___/___/___

WORK ACCEPTANCE: Having examined the work done, both work and materials are satisfactory. Accepted by: [signature]

Date: ___/___/___

TAW POWER SYSTEMS

SERVICE ORDER NO.

JOB NAME: northbrook health & rehab
DATE: oct 6 17
GEN MOD: 30.ODL6-15R
GEN S/N: k860856086
ENG MOD:
ENG S/N:

TIME	VOLTAGE			CURRENT			KW		WATER	OUT/S	ROOM	OIL	FUEL
	A-B	B-C	A-C	A	B	C	LOAD	Hz	TEMP	TEMP	TEMP	PRESS	PRESS
830	208	208	208	61	61	61	80%	60	170			75	
15	208	208	208	61	61	61	80%	60	170			70	
30	208	208	208	61	61	61	80%	60	170			55	
45	208	208	208	61	61	61	80%	60	170			55	
930	208	208	208	61	61	61	80%	60	170			55	
15	208	208	208	61	61	61	80%	60	170			55	
30	208	208	208	61	61	61	80%	60	170			55	
45	208	208	208	61	61	61	80%	60	170			55	
1030	208	208	208	61	61	61	80%	60	170			55	
15	208	208	208	61	61	61	80%	60	170			55	
30	208	208	208	61	61	61	80%	60	170			55	
45	208	208	208	61	61	61	80%	60	170			55	
1130	208	208	208	61	61	61	80%	60	170			55	
15	208	208	208	61	61	61	80%	60	170			55	
30	208	208	208	61	61	61	80%	60	170			55	
45	208	208	208	61	61	61	80%	60	170			55	
1230	208	208	208	61	61	61	80%	60	170			55	

REMARKS:

CUSTOMER SIGNATURE:

SERVICEMAN SIGNATURE:

DATE:

DATE: 10-6-17

TAW Power Systems, Inc.

Weds 9/27

TAW Service Order

6312 78TH STREE
RIVERVIEW, FL 3357
Tel: 800-456-944
Fax: (813) 217-846

BILL TO: 201551 **Net 30 days**
NORTHBROOK HEALTH & REHAB CENTER
575 LAMAR AVE
BROOKSVILLE, FL 34601

(352)799-2226

SHIP TO: 201551
NORTHBROOK HEALTH & REHAB
575 LAMAR AVE
BROOKSVILLE , FL 34601

Lat.: 28.550488
Lon.: -82.393650

MINOR

Service ID .: SO26443397
Agreement .: SA26325101
Service type : PMSA

Major ..: No
Tech ...: ~~Unassigned Tech~~ J. Crawford
Preferred: 9/1/2017

Customer PO : 00430100
Caller name .: DEAN
Caller phone : 727-277-3639

Serial No : K860856086
Model no : 30.ODL6-15R/245100
Kilowatts : 30 **Volt:** 208 **Phase:** 3

PERFORM SEMI-ANNUAL PM INSPECTION TO GENERATOR

Qty	Part number	Description	Tech note
			Minor PM complete in Auto

Tech signature:

Date .....: 10/6/17

Hours .....: 655.5

TERMS & CONDITIONS: I have read and agree to the TAW terms and conditions available at www.tawinc.com. Agreed by:

Date: ___/___/___

WORK AUTHORIZATION: This labor and material is ordered by me for which I have the authority to order. Authorzied by:

Date: ___/___/___

WORK ACCEPTANCE: Having examined the work done, both work and materials are satisfactory. Accepted by:

Date: ___/___/___

TAW POWER SYSTEMS INC-TAMPA
6312 78th Street Riverview FL 33578
866-860-6267

GENERATOR MAINTENANCE INSPECTION REPORT

DATE: 10-6-17

Service Order:							
CUSTOMER:	NORTHBROOK HEALTH & REHAB			Address:	575 LAMAR AVE		
PRE-CHECK VISUAL INSPECTION				City:	BROOKSVILLE		
GENERATOR MAKE:	ONAN		Spec Number:	245100		Serial nm:	K860856086
Generator KW:	30	Engine Serial:	K853153632				
ATS MAKE:	ONAN	Model:	OTECA-5799801	Serial:	C070031190	Voltage:	208
Diesel	Yes	Nat Gas	0	Propane	0	HRS Before Run	~~1303~~ 651.2
						HRS After Run	655.5

No	1. Lube oil and filter(s) changed.	
Yes	1.a. Lube oil level verified full	
No	2. Oil samples taken for spectro-analysis.	
No	3. Fuel filter(s) changed	
No	4. Water filter/conditioner changed.	
Yes	5. Inspect and clean air filters(s).	
Yes	6. Air intakes and outlets checked.	
Yes	7. Coolant level checked. Full: Yes; Added Qty:	
Yes	8. Radiator mounting brackets and braces checked.	
Yes	9. Anti-freeze checked. Spectro analysis: ; Anti-freeze level +/- :	
Yes	10. All engine hoses and clamps checked.	
Yes	11. Belts inspected and adjusted as required.	Battery Tests Static: 1303
Yes	12. Front and rear engine supports checked.	Charger voltage:
Yes	13. Generator set checked for fuel, oil and coolant leaks.	Voltage Drop: 224
Yes	14. Battery charger operations & charge rate checked and adjusted.	
Yes	15. Battery electrolyte levels and specific gravity checked.	Specific Gravity: ; LEVEL:
Yes	16. Battery load tested.	
Yes	17. Engine heater operation checked.	
No	18. Exhaust line drained.	
Yes	19. Check Electrical Connections	
	GENERATOR RUNNING CHECKS	

	NO LOAD	LOAD
Yes	60	
Yes	208	
Yes	1330	
Yes	55	
Yes	170	

Yes	21. Governor adjusted / Frequency adjusted & recorded	
Yes	22. Generator output voltage adjusted and recorded:	
Yes	23. Engine alternator charge rate checked and recorded:	
Yes	24. Oil pressure recorded:	
Yes	25. Water temperature recorded:	
Yes	26. Engine and generator gauge & indicator operations checked.	
No	27. Emergency systems with load transfer tested.	Peak Amp Inrush:
Yes	28. Emergency system without load transfer tested.	
Yes	29. Transfer switch inspected for corrosion.	
	30. Transfer switch and accessory operation checked. Exercise Program:	
Yes	31. Emergency shutdown functions and emergency stop tested.	TDES
No	32. Paralleling equipment operation checked.	TDNE
Yes	33. Fuel Level: F; Tank size: 0; Sample:	TDEN
Yes	34. Generator Breaker(s) manually operated	TDEC

Customer Signature Required for testing ATS or Transfer Of Load!!!!

Name:		**Print:**	
Notes:			

Inspection Performed By:		Vinie	
Inspection Approved By:		Print Name:	

3A

3.B.3 .4 .5 .6

RISK ASSESSMENT PROCOTOL

DATE: 2016

This assessment is intended to identify geographic/center-specific planning issues. The results will provide insight on areas that require additional planning emphasis. Information can be obtained from state, county and local emergency management agencies; insurance information, etc.

1. Is the center in a hurricane evacuation zone?
   Yes_____ No: **X**

2. Is the center located within a 100-year floodplain?
   Yes: **X** No_____

   Provide additional information concerning center's location within an established flood zone (per flood insurance rate map):
   __Ponding Area (See Map)_____

3. Is the center located near (within one-quarter mile) an active railroad track system or major highway? If "Yes," identify transportation route (e.g., Interstate 45) and provide approximate distance to each.

   Railroad Line: **½ mile "CSX" No Stops in Brooksville**
   Highway: **Highway 50 – ¼ (one-quarter) mile**

4. Is the center located within the 10/50-mile Emergency Planning Zone of a commercial nuclear power facility?
   10 mile: Yes_____ No: **X**
   50 mile: Yes: **X** No_____

5. Is the center located in an earthquake-prone area?
   Yes_____ No: **X**

6. Is the center located in a geographic area prone to severe and/or prolonged winter storms?
   Yes_____ No: **X**

7. Is the center located in a tornado-prone area?
   Yes_____ No: **X**

11