

LC No.: 35097 cmb@cmbeng.com O. 786.375.5348 F. 305.921.9937

Infrared Inspection Report

for

Lake Beach Club Condo 2600 Collins Ave Miami, Florida 33140

at

Lake Beach Apartments 2600 Collins Ave Miami Beach, Florida 33140







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1.0 Foreword

This infrared inspection report provides documentation of thermal patterns detected in your electrical equipment or system designed to carry more than 400 Amps. The electrical components are shown in the Table No.1 and correlated with summary of images and pictures. It incorporates an objective and subjective evaluation to aid in prioritizing repairs.

This report meets the documentation requirements of the Infraspection Institute Standard for Infrared Inspection of Electrical Systems & Rotating Equipment as well as standards and specifications published by other recognized standards organizations.

2.0 How Infrared Thermography Works

Infrared imagers are camera-like devices capable of detecting, displaying, and recording thermal patterns across the surface of an object. When thermograms are in color, colors in the scene are matched to the reference bar. Colors appearing closer to the top or right of the reference bar indicate higher temperatures. Colors appearing closer to the bottom or left of the reference bar indicate lower temperatures. Some thermal imagers are also capable of providing temperature values for imaged objects.

3.0 Repair Priority Ratings

Each thermogram in this report is given a Repair Priority Rating which is based upon the delta T criteria set experience based for electrical or mechanical equipment and the qualified maintenance assistant's opinion of how critical the subject item is to facility operation. The Inspection Summary section of this report explains how to use Repair Priority Ratings to help determine how quickly you need to investigate and correct the potential problem.

Overheating can cause premature deterioration and costly, unplanned failure of your equipment. Overheating connectors, conductors, and components will never get better. In fact, the temperature of most exceptions will increase with time.

No one can predict when a failure will occur. As a result, we suggest that you use Repair Priority Ratings as a guide but that you investigate and take appropriate corrective measures as soon as possible.

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4.0 Inspection Summary

For the equipment inspected, we have recorded a total of (10) ten thermograms and/or daylight photograph(s) documenting conditions found during our inspection. These thermograms and/or photographs appear on the Image Pages found at the end section of this report.

As a reference, each Image Page contains Repair Priority Ratings. When provided, Subjective Ratings are based upon the maintenance qualified Assistant's opinion of the subject item's importance to the safe and continuous operation of the facility. Objective Ratings found on Electro/Mechanical Image Pages are based upon temperature rise criteria as specified by NFPA, NETA and the Standard for Infrared Inspection of Electrical Systems and Rotating Equipment published by Infraspection Institute refer to Table No.2.

Depending upon Image Page format, Subjective and/or Objective Ratings may be found. When both are listed, an Average Repair Priority Rating will also be displayed. This Average Repair Priority Rating is the mean value of the Subjective and Objective Ratings. When appropriate, the Average Repair Priority is rounded up to the next highest whole number, refer to summary of images.

Potential problems documented in this report are grouped and listed according to the following Average Repair Priority or Subjective Ratings.

Table No.1: Summarized Quantity/Priority Table

<u>Quantity</u>	<u>Priority</u>
0	1
0	2
0	3
10	4

Table No.2: Recommended Corrective Action Table

Priority	Delta T	Corrective Action	
4	1 to 18 ° F	Next maintenance period	
3	>18 to 36 ° F	As time permits	
2	>36 to 72 ° F	ASAP	
1	>72 ° F	Immediately	

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5.0 Report Summary

Report Date: 06/20/2024 Job Number: 2024-0135

Type of Inspection: 40 yr

Recertification Date of Inspection:06-20-2024 End user: Lake Beach Club Project Location: 2600 Collins Avenue

Miami Beach, Florida 33140

Thermographer: Largaespada

Edmundo Certification Number: 14767

Certification Level: III

Qualified Assistant: None

Equipment Used: Flir C-5 Model C5.1.2

of items inspected: 10 # of image pages: 10



CONCLUSION:

Based on our thermographic analysis, no thermal anomalies were noted during our thermographic inspection please refer to pictures 01 through 10.

Respectfully submitted,

Edmundo Largaespada PE 56915 LEED AP BD+C CIT Lev-III



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6.0 Summary of Images

Picture	Location	Equipment ID	Priority
1	Electrical Room 1st Floor	Disconnect 2 of 1	4
2	Electrical Room 1st Floor	Disconnect 1 of 1	4
3	Electrical Room 1st Floor	Main Disconnect 1	4
4	Electrical Room 1st Floor	Main Disconnect 2	4
5	Electrical Room 1st Floor	Disconnect 1 of 2	4
6	Electrical Room 1st Floor	Disconnect 2 of 2	4
7	Electrical Room 2 nd Floor	Disconnect 2 nd Flr	4
8	Electrical Room 3 rd Floor	Disconnect 3 rd Flr	4
9	Electrical Room 4 th Floor	Disconnect 4 th Flr	4
10	Electrical Room 5 th Floor	Disconnect 5 th Flr	4



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Image No: 1Equipment: Main DisconnectID: Main 2 of 1Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97Reflected Temp (F): 80Lens: 1xFilter: N/AWindow Trans: N/AR.H.: 60Load Rated: 500 AMeasured Amp: 100 ALoad %: 25

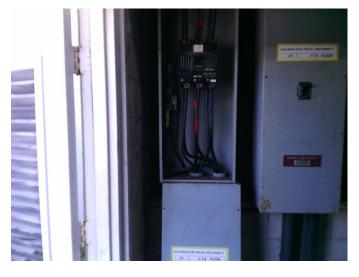
Ambient Temperature: 75 F **DT** 6 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.1-a: Disconnect 2 of 1 (5th Floor) at the Electrical Room 1st Floor



Picture No.1-b: Disconnect 2 of 1 (5th Floor) at the Electrical Room 1st Floor



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Image No: 2Equipment: Main DisconnectID: Main 1 of 1Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97Reflected Temp (F): 80Lens: 1xFilter: N/AWindow Trans: N/AR.H.: 60Load Rated: 500 AMeasured Amp: 40 ALoad %: 10

Ambient Temperature: 75 F **DT** 8 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.2-a: Disconnect 1 of 1 (4th Floor) at the Electrical Room 1st Floor



Picture No.2-b: Disconnect 1 of 1 (4th Floor) at the Electrical Room 1st Floor



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Image No: 3 Equipment: Main Disconnect ID: Main 1

Wind Speed: N/A Distance: 3 Ft Condition: Indoors

Emissivity: 0.97Reflected Temp (F): 80Lens: 1xFilter: N/AWindow Trans: N/AR.H.: 60Load Rated: 1000 AMeasured Amp: 140 ALoad %: 14

Ambient Temperature: 75 F **DT 10 F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.3-a: Main Disconnect 1 (4th & 5th Floor) at the Electrical Room 1st Floor



Picture No.3-b: Main Disconnect 1 (4th & 5th Floor) at the Electrical Room 1st Floor



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Image No: 4 Equipment: Main Disconnect ID: Main 2

Wind Speed: N/A Distance: 3 Ft Condition: Indoors Emissivity: 0.97 Reflected Temp (F): 80 Lens: 1x

Filter: N/A Window Trans: N/A R.H.: 60
Load Rated: 1000 A Measured Amp: 272 A Load %: 27

Ambient Temperature: 75 F **DT** 12 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.4-a: Main Disconnect 2 (2nd & 3rd Floor) at the Electrical Room 1st Floor



Picture No.4-b: Main Disconnect 2 (2nd & 3rd Floor) at the Electrical Room 1st Floor



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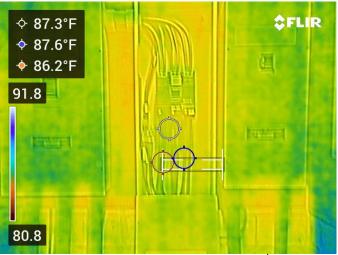
Image No: 5Equipment: Main DisconnectID: Main 1 of 2Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97 Reflected Temp (F): 80 Lens: 1x Filter: N/A Window Trans: N/A R.H.: 60 Load Rated: 500 A Measured Amp: 200 A Load %: 40

Ambient Temperature: 75 F **DT** 12.3 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.5-a: Disconnect 1 of 2 (2nd Floor) at the Electrical Room 1st Floor



Picture No.5-b: Disconnect 1 of 2 (2nd Floor) at the Electrical Room 1st Floor



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Equipment: Main Disconnect Image No: 6 **ID:** Main 2 of 2 Wind Speed: N/A Distance: 3 Ft **Condition:** Indoors Lens: 1x

Emissivity: 0.97 Reflected Temp (F): 80

Filter: N/A Window Trans: N/A **R.H.**: 60 Load %: 14 Load Rated: 500 A Measured Amp: 72 A

DT 13.2 F above Amb Temp Ambient Temperature: 75 F

Referenced Delta T Criteria: **Experience Based**

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.6-a: Disconnect 2 of 2 (3rd Floor) at the Electrical Room 1st Floor



Picture No.6-b: Disconnect 2 of 2 (3rd Floor) at the Electrical Room 1st Floor



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Image No: 7Equipment: Main DisconnectID: Main 1 of 3Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97Reflected Temp (F): 80Lens: 1xFilter: N/AWindow Trans: N/AR.H.: 60Load Rated: 600 AMeasured Amp: 200 ALoad %: 33

Ambient Temperature: 75 F **DT** 17 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.7-a: 2nd Floor Disconnect at the Electrical Room



Picture No.7-b: 2nd Floor Main Disconnect at the Electrical Room



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Image No: 8Equipment: Main DisconnectID: Main 1 of 3Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97 Reflected Temp (F): 80 Lens: 1x Filter: N/A Window Trans: N/A R.H.: 60 Load Rated: 600 A Measured Amp: 72 A Load %: 12

Ambient Temperature: 75 F DT 12.3 F above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.8-a: 3rd Floor Disconnect at the Electrical Room



Picture No.8-b: 3rd Floor Main Disconnect at the Electrical Room



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R.H.: 60

Load %: 0.06

Image No: 9Equipment: Main DisconnectID: Main 1 of 3Wind Speed: N/ADistance: 3 FtCondition: IndoorsEmissivity: 0.97Reflected Temp (F): 80Lens: 1x

Emissivity: 0.97 Reflected Temp (F): 80
Filter: N/A Window Trans: N/A
Load Rated: 600 A Measured Amp: 35 A

Ambient Temperature: 75 F **DT** 11.2 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.9-a: 4th Floor Disconnect at the Electrical Room



Picture No.9-b: 4th Floor Disconnect at the Electrical Room



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Image No: 10Equipment: Main DisconnectID: Main 1 of 3Wind Speed: N/ADistance: 3 FtCondition: Indoors

Emissivity: 0.97 Reflected Temp (F): 80 Lens: 1x Filter: N/A Window Trans: N/A R.H.: 60 Load Rated: 600 A Measured Amp: 80 A Load %: 13

Ambient Temperature: 75 F **DT** 11.4 **F** above Amb Temp

Referenced Delta T Criteria: Experience Based

Obj. Priority: 4 Subj. Priority: 4 Avg. Priority: 4



Picture No.10-a: 5th Floor Disconnect at the Electrical Room



Picture No.10-b: 5th Floor Disconnect at the Electrical Room