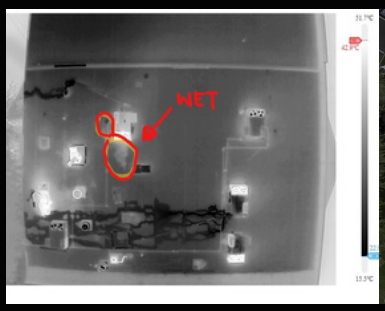
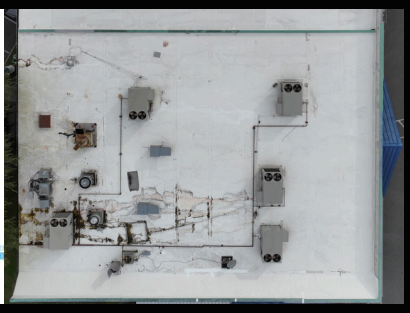
Case Study: Thermal Roof Inspection at 4037 13th St., St. Cloud, FL

Overview

C**lient**: Apex Seal Coatings (Hired by Building Owner)
Location: 4037 13th St., St. Cloud FL 34769
Service Provided: Drone Thermal Roof Inspection
Objective: Determine the extent of water intrusion under the TPO membrane before deciding on roof replacement or repair.





Challenge

Apex Seal Coating, a roofing company, was hired by the owner of a commercial building at **4037 13th Street** due to a visible water leak in the ceiling near the bar area in the dining section. Apex Seal Coatings suspected that the TPO (thermoplastic polyolefin) membrane installed on the roof had not been properly sealed, allowing water to seep into the insulation. Before proceeding with costly repairs or a complete tear-off, the client needed to assess how much of the roof had been compromised.

Solution: Drone Thermal Roof Inspection by Cynosure Aerial

Cynosure Aerial was contracted to perform a drone thermal roof inspection, providing a non-invasive solution to pinpoint areas of concern. Our drone, equipped with thermal imaging sensors, was flown over the roof to detect temperature variations indicative of moisture trapped beneath the TPO membrane.

- **Thermal Imaging Precision:** The thermal scan revealed heat patterns that indicated potential moisture buildup. These anomalies suggested areas where the TPO membrane may have failed, allowing water to penetrate into the roof insulation.
- **Rapid Inspection:** The entire inspection was completed in just a few hours, far faster and safer than the traditional manual inspection method of walking the roof with a handheld thermal camera, and without disrupting the restaurant's operations.

Results

The thermal inspection uncovered a **potential anomaly near a roof HVAC unit.** This area displayed temperature variations that indicated possible moisture buildup. The results of the drone inspection provided Apex Seal Coating with clear data, allowing them to recommend further testing of the specific section around the HVAC unit. This targeted approach avoided unnecessary roof tear-off and limited the repair scope to the affected area, saving the client time and money.

- **Drone Flight Time:** A few hours
- **Findings:** Temperature anomalies near the HVAC unit
- **Next Steps:** Destructive or core sampling of the HVAC-adjacent area, followed by focused repair efforts

Conclusion

By utilizing **Cynosure Aerial's drone thermal roof inspection,** Apex Seal Coating was able to obtain detailed, actionable, data about the condition of the TPO membrane at **4037 13th Street.** The thermal imaging identified the exact location of concern near the HVAC unit, allowing the roofing company to avoid an unnecessary full roof replacement. This efficient, precise approach saved the building owner significant repair costs while minimizing disruption to the business.

Learn more about our drone inspection services at www.cynosureaerial.com.

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