



foresight

MANAGEMENT

Thermal Imaging

WHY

Temperature can tell us a lot about the functionality of your building envelope, HVAC, electrical, and manufacturing equipment. At a glance, these components may appear to be functioning properly, but thermal imaging can identify invisible weaknesses in commercial and industrial facilities. Our engineers can find roof leaks, faulty bearings, overloaded electrical panels, HVAC malfunctions, and failing mechanical equipment before these become costly problems that halt production or close your doors. In addition to improving your month over month utility costs, thermal imaging allows you to be responsive – not reactive – to equipment failure or building envelope issues, with thousands of dollars in potential savings.

BENEFITS

- Predictive maintenance
- Cost-savings with heating and cooling
- Compliance with insurance company policies
- Facility safety

HOW

Using state-of-the-art thermal imaging cameras, our technicians will inspect your facility, beginning with the exterior points of entry and then the roof, HVAC, electrical, and mechanical equipment. This service is best performed in the winter or summer months for optimal contrast in interior and exterior temperatures. Readings outside of the normal range for a particular component are a red flag for further investigation. For example, wet insulation typically points to a leaky roof, or an overheating motor often indicates a faulty bearing. Once our engineers have canvassed your building, they will provide a report with both thermal and digital images, along with a breakdown of detected issues and recommended solutions. You can use this information to initiate repairs, resolve technical issues, predict mechanical decline, or petition for funds to make improvements.

[SAMPLE REPORT](#)

CASE STUDY

Client Profile

Pharmaceutical Manufacturer

Before Foresight

This company had never performed a thermal imaging study at their facility before Foresight. The facility maintenance strategy was to fix problems as they arose and pay utility bills when they arrived. If not outright broken, it was presumed to be functioning optimally. Our technicians performed a thermal imaging study for as a part of an optimization bundle that leveraged our engineering and utility services to increase efficiency and profitability.

After Foresight

During their analysis of the facility, our engineers identified four rooftop heating and cooling units, though only two operated at a time. However, rather than working in tandem, one unit was cooling the building while the other simultaneously worked to heat it. Additionally, our engineers led strategic discussions around syncing and rotating all four units to mitigate the constant demand on the same two. These efforts greatly increased their units' lifespan and saved thousands each year in heating and cooling expenses.

In the packaging portion of the facility, thermal imaging showed cold, wet insulation in the ceiling. While it was commonly known to be an old building that "might need a new roof," these images gave clout to requests for fund allocations to replace the roof before it became an emergency. This company budgeted and planned to fix the problem, saving thousands of dollars in potential damages to the equipment and products below.

FREQUENTLY ASKED QUESTIONS

Do you just come once?

Typically, yes. But if you fix a component and need verification of it's improvement then we can come back again.

What time of year is best?

The best time to come is either winter or summer when there is a greater than 10 degree difference in indoor/outdoor temperature. If you are a manufacturing facility, then we will come when the equipment is running.

How do you price?

For manufacturing facilities we charge per square foot. Commercial buildings will depend on the number of exterior touchpoints and technical systems that need to be evaluated.

How frequently should we do this?

HVAC systems can benefit from finding issues in both heating and cooling seasons. Other equipment and envelope issues likely would not need to be investigated more than annually.

Do new constructions need this?

Any building can benefit from thermal imaging. In new construction, we can verify the proper installation of components and in retro-fitted buildings thermal imaging will help you strategize and prioritize efficiency projects.



To learn more about how your business could benefit from Thermal Imaging & Predictive Maintenance, contact:

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