

RAM USA is a national roof, pavement & building enclosure consulting firm focused on **cost effective asset life extension solutions**. Our goal is to help **preserve and protect your portfolio of properties** – Whether you have 1 or 100+ sites.

Our unique, **Condition-based Approach** is built upon **Information, Implementation and Continuation (IIC)**, which empowers you to **proactively** deploy systematic solutions to **reduce capital, O&M, and energy expenditures, while extending the life of your assets**.

OUR METHODOLOGY = YOUR SUCCESS



INFORMATION

Complete Condition Baseline Assessments with Objective Options.

IMPLEMENTATION

Our Design, Bid, and Project Management Expertise Delivers the Highest Value Solutions.

CONTINUATION

Maintenance and Asset Management Programs that Empower Proactive Business Decisions.

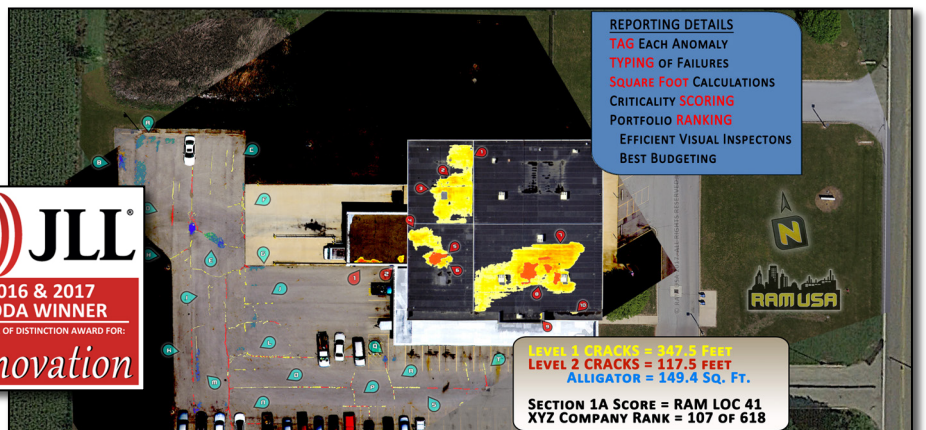
AERIAL PROPERTY ASSESSMENTS

The Most Accurate, Cost Effective Analysis for Roofs, Paving and Parking Lots for Large Portfolios



RAM USA's Comprehensive Aerial Property Assessments are industry leading, non-destructive diagnostic services used to **accurately, quickly, and cost effectively understand how well your assets are performing**.

The 1st Step in truly understanding the condition of your properties, it assists with leak investigation, and helps establish **proper maintenance going forward**. Our expertise and the analysis of these scans provides a **roadmap that assists in further investigation** in surveying your portfolio of properties.



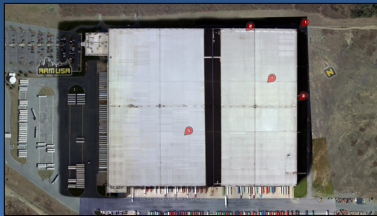
Keeping \$2,400,000 out of the Landfill



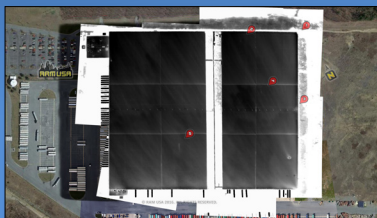
Takeaways

- Dry insulation can be good under a failed roof membrane.
- Aerial infrared roof analysis offers a significant ROI
- Reutilizing dry insulation offers a significant savings economically and environmentally

Aerial Infrared Process Images



High Resolution Base Photo



Moisture is Detected



Thermal Anomalies are Pinpointed

Challenge

A consumer Company had their hands full with an abundance of issues with their 1.4 million square foot roof. The roof was a failed TPO with exposed scrim and has 5 different roof sections. The roof was reported to be leaking in various areas. They were advised that a costly, \$5-6 million roof tear off was necessary. After learning from the Environmental Protection Agency that 10% of the waste in the United States is from roofing, they wanted a second opinion.

Solution

RAM USA was retained to perform a Diagnostic Aerial Infrared Scan, Roof Survey, Design and Construction Management Services to assess the condition of the existing roof system. A Visual Roof Survey determined that the roof system has failed. The aerial infrared determined that less than 1% of the roof insulation was wet and that the only the roof membrane was failed. The insulation was good and could be utilized in the new roof system, it was then warranted with the new roof membrane in the Full System Warranty that RAM issued.

Results

RAM USA's Assessment revealed that less than 1% of insulation was wet as well as roof sections thought to require replacement were only in need of a reskin. They were able to keep 674,625 lbs. of waste out of the landfill. The roof membrane replacement was half of the estimated replacement cost. The Aerial Infrared Scan revealed savings of \$2.5 million (17,857% return on investment).

