

## Ohio School District Used Diagnostics to Save Money and Landfill Waste



### Takeaways

- Roof Diagnostics offer significant ROI and environmental benefits
- Roof Restoration saves significant capital dollars
- Diagnostics – Like IR and visual roof surveys can provide valuable data
- Reutilizing dry insulation offers a significant savings economically and environmentally

### Challenge

A large Ohio School District needed to be able to effectively manage their facilities. They did not know the overall conditions of their roofs. Additionally, they did not have a system to prioritize repairs and replacements, or prepare budgets to spend the money efficiently. They decided to call **RAM USA**.

### Solution

**RAM USA** was retained to performed a Diagnostic Aerial Infrared Scan to pinpoint hidden moisture in the roofs and conduct Visual Roof Surveys, in which **RAM USA's** Registered Roof Consultants (RRCs) did a complete physical assessment. **RAM USA** delivered an independent, objective, and comprehensive roof condition baseline assessment. Included with this report was a five year portfolio assessment that gave the client options and budgets to pursue in the future. All the data was input into a Web Based Asset Management Program (RAM Command).

### Results

**RAM's** Assessment revealed that many roofs thought to require replacement were in good condition. **RAM USA** developed a comprehensive plan to maintain, repair and restore roofs at a fraction of what a replacement would cost. It was revealed that much of the insulation on their roofs were dry. The roofs that were wet and failed were prioritized for replacement. It is known that roof restoration is a long term, less expensive, and more environmentally friendly option. The **RAM USA** survey cost was \$75,000. This investment revealed savings of \$14.8 million and prevented tons of debris from being sent to the landfill.

### Facility Background

- Ohio School District
- 80 Buildings
- Approx. 400 roof sections
- 2,550,000 Sq. Ft.

### RAM Command



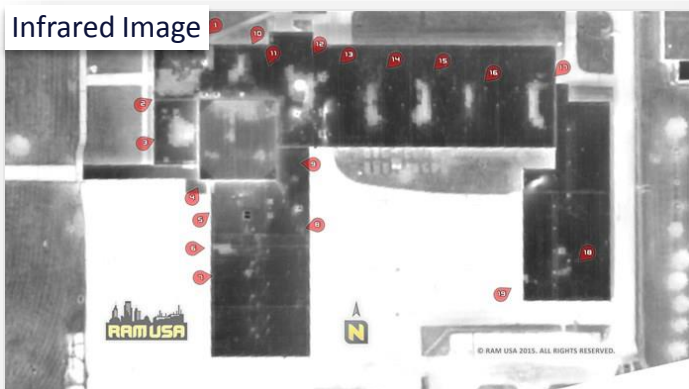
Online Asset Based Management



## Aerial Infrared Process Images



High resolution base photo to view the roofs' current condition



Accurately detects minute temperature changes in the roof



Pinpoints thermal anomalies in need of further investigation

### PROJECT FINANCIAL SUMMARY

<b>Contractor</b>	<b>RAM USA</b>
Replacement	RAM Surveys & Analysis = \$ 275,000
Proposal	<b>Total Savings = \$14,500,000</b>
= \$ 29,000,000	

***Our diagnostics reduced expenditure by 50%***

***Plus saved a 100 ton of roof material from going to the landfill***

### OUR METHODOLOGY = YOUR SUCCESS

**RAM USA** is a national roof and building envelope consulting and engineering services firm focused on **cost effective asset life extension solutions**. Our goal is to help **preserve and protect your portfolio of buildings** – 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**.

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