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Action Items

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Ace the complex roofing test: think, research and act to solve the problem.

Maximizing school resources and managing a shrinking budget — these are two important items affected when a building's roofing system doesn't perform properly. Rather than acting in haste, school and university administrators should do what every teacher tells a student prior to answering any question: think through the research and studies to find the best solution before acting. The same is true when trying to solve a roofing problem.

In planning their course of action, building engineers and school administrators need to consider five elements to help produce a positive outcome:

- Proper diagnosis.
- School advisers.
- Selection of roofing systems.
- Warranties.
- Quality control.

Assess conditions

Before ordering that new roof or caulking everything in sight, administrators need to carry out a vital first step: assess the roof's condition and determine which corrective action is needed. Often, an untrained eye will choose a costly repair that is either overkill or just a stop-gap fix. Rather than jump into a repair, facility managers first should do the research.

Although a custodial team may be able to identify the signs (or symptoms) of a leak, a trained professional, such as a specialty engineer, not only can find the cause of the leak, but also identify deficiencies that could lead to future ones (see the sidebar, "[Simple steps to extend the service life of existing roofs](#)"). Assessing existing conditions enables education institutions to choose the proper method of fixing the problem, whether it is a repair or, in the worst case, total replacement.

Reviewing the facts can save thousands of dollars and get the job done right the first time. In many instances, the life of the roof can be extended by three to five years with minor repair and refurbishment.

Selecting partners

Do the research when selecting a partner. When people have the flu, they don't go to an accountant. Selecting a professional who is totally versed in repairing and replacing institutional roofing systems is essential. A design professional will be able to properly identify and specify appropriate performance criteria for the repairs or replacement.

The architecture/engineering firm a school hires should be familiar with the geographic location and specific building codes.

Many firms specialize in school construction for new and re-roofing projects. A firm that specializes in this work may cost more, but the additional cost is worthwhile if it leads to a properly specified and installed product without the extras and change orders that inexperienced contractors often submit.

All materials not equal

For repairs, many products are available. Within each single-ply, modified bitumen or spray polyurethane foam category (among many products), additional product types are available with varying performance characteristics and installation requirements, ranging from mechanically attached and fully adhered to spot-applied and self-adhered.

Not all materials are suitable for all projects. In fact, a single project may have different areas and substrates that benefit from different materials. Again, do the research to find the best solution.



In this example, an existing roof has split plies at the base flashing, allowing water infiltration.

The Internet is a valuable tool for research to verify the materials recommended or specified by the design professional and contractor. Also, review a manufacturer's product data sheets and physical properties to confirm that a product is right for your project.

For example, schools situated in the South may be concerned about energy savings. Hence, white or light-colored roofing makes sense to reduce surface and interior temperature, and to lower air-conditioning expenses.

If a rooftop will have a lot of activity, the choice of material becomes paramount. In this example, unreinforced EPDM would not be an ideal solution.

Find this article at:

<http://www.asumag.com/Construction/roofing/building-roof-testing-200902/index.html>

Check the box to include the list of links referenced in the article.

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