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# Quality *focus*

*A Quarterly Publication of the Ohio School Facilities Commission For Architects, Engineers and Construction Managers who Participate in OSFC-funded projects*



## Alternative Dispute Resolution Involving a Neutral Third-Party

*Below is an example of a project team that utilized the services of a mediator to resolve ongoing roof problems. The mediator was able to steer the parties in the direction of settlement and compromise while evaluating the situation from an independent point of view.*

In May 2005, a consultant was hired by the Ohio School Facilities Commission (OSFC) to determine the cause of chronic water intrusion conditions at Frontier Local School District. To maintain continued support of the original project team, each party was called upon to respond to the concerns of the co-owners. The original Contractor and Project Architect were in disagreement on some of the construction issues, and as a result the Contractor refused to participate in providing a solution. The balance of the project team remained intact and the owners dealt directly with the contractor's Surety.

In turn, OSFC's legal counsel produced several demands that went unmet and the Surety notified us that they would neither perform nor finance the roof repairs on behalf of its Principal. Ultimately, everyone agreed to participate in an alternative dispute resolution where the services of a third-party mediator were utilized. The total settlement amount equaled \$1.32M with contributions as follows: Contractor and Surety—57%; Architect—28%; and Construction Manager—15%. After bid acceptance, the base bid amount was \$1.398M; a worthwhile outcome where over 90% of the construction costs were recovered.



*Frontier Local Schools, Newport Elementary/Middle School Washington County, Ohio*



## Product Spotlight – Spray Foam Roof Systems

Sprayed polyurethane foam is applied as a liquid using plural-component spray equipment to fill cracks and crevices. The foam then expands approximately 30 times its original liquid volume to form a hard, closed-cell monolithic roof surface. The foam dries within seconds after being applied to the roof surface and its expansion results in a weather-tight roofing membrane that is fully adhered to the substrate. Little additional weight is added to the structure and is often used in remedial applications. Polyurethane foam has a history of more than 35 years as a maintainable roofing medium and adds excellent insulation value to the structure.



## Test and Balance - Is the Fox Watching the Hen House?

*Making a case for third-party test and balance. Below is a best practice aimed to improve the quality of our HVAC systems by ensuring adequate system performance prior to occupancy.*

**Problem:** HVAC systems are not functioning as desired, and the test and balance (TAB) report fails to meet expectations. The typical way TAB services are procured on OSFC projects is through the Mechanical Contractor. This method brings with it the possibility that the TAB work might not receive the necessary attention and oversight after the contractor's left the project.

Typically, the cost of the TAB scope of work comprises approximately 1% of the HVAC bid package. With it being such a small percentage of the total project cost, and because it does not occur until the final phases of construction, it often does not

receive the attention it deserves. Is there a better mousetrap?

OSFC strongly recommends that project teams consider utilizing third-party TAB as a way to achieve better performing HVAC systems. These services could be purchased as a professional service or bid as a prime package. Some best practices that can be implemented are to ensure enough time is scheduled to complete the TAB work and that all predecessors are complete before TAB starts.

The TAB report should be submitted to the Architect and Commissioning Agent (CxA) for review and approval. The CxA would

randomly sample some measurements to verify the accuracy of the TAB report. Project teams should ensure a means of financial leverage for incomplete or nonconforming work discovered during the TAB process. The approved report should be included in the owner training and operation and maintenance manuals. Verifying the efficient performance of our HVAC systems prior to occupancy is the goal.

**Lesson Learned:** TAB is a valuable process to ensure the quality of HVAC system operation and as such should be procured in a manner that ensures the owners best interest is represented.

**ON POINT:**  
Quality in  
Today's  
Construction  
Market



Do you know what the Ohio School Design Manual requires for TAB?

- AABC or NEBB certified contractor
- Testing, adjusting, and balancing plan
- Systems readiness checks
- TAB procedures consistent with AABC's or NEBB's national standards
- Equipment settings marked to show final settings
- Electrical performance verified for HVAC equipment

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