



BTA's Big-Time Response to a Big-Time Challenge in Hillsborough County, FL

Effective roof asset management can be a big challenge for many organizations, but for Hillsborough County Public Schools (HCPS), Florida, managing their buildings' roofs was literally a gigantic task. That's because Hillsborough County is the eighth largest school district in the United States (more than 190,000 students), and one of the fastest-growing as well. That adds up to a lot of buildings and a lot of roofs: 21 million total square feet at the time of the request for proposal sent out by HCPS in October 2004.

For HCPS, better management of its roof inventory was a critical need, involving optimization of the planning, direction, and oversight of roof maintenance, repair and replacement. Twelve roof asset management firms were considered by HCPS in its quest to find a qualified provider who could thoroughly analyze HCPS roof assets, evaluate their condition and recommend what needed to be done. That would kick off a five-year prioritized roof maintenance and management project and a schedule for ongoing inspections, repairs and replacements. Of the 12 firms considered, the best choice turned out to be Building Technology Associates (BTA), an Oak Park, Michigan-based roof management consulting firm with more than 50 years of experience in roof asset management.

The challenge within the challenge

It's likely that most of the 12 candidates for the HCPS task had the capabilities to handle the job. However, one of the biggest advantages setting BTA apart -- and one of the keys to its success -- was its ability to turn HCPS's limited, basic roof asset data into the foundation for accurate assessments, including projected future developments, and to do so quickly. BTA excelled in these areas, creating detailed and accurate documents that showed a thorough understanding of HCPS's facilities, challenges and needs (one of BTA's initial findings was that the initial HCPS estimate of 16 million square feet in roof assets was low. BTA also projected a timeframe of only six months to

complete the assessment, significantly shorter than competitors' estimates. The stage was set for better, more cost-effective responses to HCPS roof asset management needs.

The BTA Response

How did BTA provide such a thorough response in such a short projected timeframe -- and still deliver the lowest bid? The key was BTA's specialized proprietary software program that harnesses BTA's experience, involving managing more than 500 million square feet of roofing over the years. This computerized approach enabled BTA to deliver an unparalleled level of roof asset management quality while saving time and money. Sophisticated computerized modeling systems, based on trends observed over decades in roofing similar to that found in the HCPS, helped school district officials make objective judgments and decisions based on scientific fact.

Over the winter of 2005-2006, BTA performed roof assessments on more than 200 schools, including all 21 million square feet of roofing. Roof asset data was then analyzed by BTA to identify the best opportunities to extend the life of HCPS roof inventory while containing costs. This analysis allowed the HCPS to potentially achieve an increase in average roof life span equivalent to more than \$8.7 million, simply by investing \$1.5 million in strategic repairs. The HCPS also saved money by extending the useful life of their roofs through repairing instead of replacing roof assets, thus deferring additional capital investment until it is truly needed. In addition, upgrading the integrity of aging roofs is also likely to reduce energy costs. Emphasis on repair instead of replacement also addressed an important HCPS concern, which was that roof asset management firms might recommend costly replacement in order to perform contracting. BTA, a truly independent consultant, focused on determining whether replacement could safely be avoided or delayed, saving HCPS costs.

Knowledge is Power

The most vital service provided by BTA was delivering timely, insightful information. Their Web-based program allowed HCPS personnel to access projections of future roof asset developments, supporting decision-making and planning. Most roof asset consulting relies on "slice-in-time" assessments of what is occurring at one particular time. BTA, however, offered a dynamic computer database that models probability of future occurrences based on developments in the past and present. "We provided HCPS with more control over their future planning by quantifying and illustrating their true roofing life-cycle costs," said John Eaton, BTA Director of Marketing and Sales. "This detailed knowledge allowed them to make more informed and prioritized decisions."

The benefits to HCPS didn't end with the 2005-2006 roof asset evaluations. They continue as HCPS moves forward with their strategy, derived from the BTA database. That database will be updated continually to reflect any changes in roof condition and/or composition due to repairs and replacements. That allows re-inspection frequency to be reduced to every 4 to 5 years while retaining accurate data. This closed-loop process of updating vital information, combined with "what-if" financial modeling scenarios provided by BTA's software, has set BTA apart from all other consultants who were considered by HCPS.

The first re-evaluation of the HCPS's roof assets is currently underway. And if current demographic trends continue, HCPS's student population is certain to grow, probably leading to an increasing total volume of roof assets as school buildings are built or expanded. The challenge of maintaining roof assets and containing costs is likely to grow as well, thanks to tighter budgets and increasing emphasis on energy savings. But the HCPS is confident that in BTA, they have a responsive and experienced partner who gives the knowledge and information that will grow to meet any roof asset management challenges.



This roof, part of the School District of Hillsborough County's 21,000,000+ roof assets, was scheduled for repair instead of replacement, thanks to computerized modeling information provided by BTA.

