

Consideration for Repairs to HVAC Components for the Academy for Technology & Academics

Policy Reference: OE-13: The superintendent shall assure that physical facilities support the accomplishment of the board's **Results** policies, are safe and properly maintained.

Background Information: The HVAC system at the Academy for Technology & Arts (ATA) is approximately 14 years old and uses standard water-source cooling equipment plus 12 thermal energy (ice) storage tanks which contain HVAC circulation piping. In off-peak utility demand periods, ice is generated inside these tanks to surround the piping. During peak utility demand periods, the solution circulating through the piping is cooled by the ice, lessening demand on the chiller units and reducing energy consumption. The ATA has recently experienced several serious HVAC equipment malfunctions related to the chiller units, control valves, cables, and the ice storage component. Both chiller units run almost constantly to compensate for the lack of supplemental cooling from the ice storage component, increasing wear-and-tear on the chillers, energy costs, and the frequency of their component failures. Repairs are needed for several key components, and funding is requested so the work can be completed before warmer weather returns. In conjunction with these repairs, migration to the Desigo software platform for the automated controls will be made and additional insulation will be added to portions of the building. These two items will be accomplished from previously approved funds.

Purpose: To replace several types of valves, sensor kits, modules, and all loop pump and air handler VFD's (variable frequency drives) to restore the thermal energy storage capability and assure a more reliable HVAC system for the school.

For additional information: Contact Mark Wolfe 843-488-6967 or Daryl Brown 843-488-6774

Recommended Action: Approve the replacement of the various HVAC components to assure a more reliable HVAC system to serve the school.

Estimated Cost: \$150,000.00

Recurring ___ Non-recurring X

Funding Sources: Residual Funds From Sustainment and Maintenance Projects