



## University of South Florida Campus Library Tampa, Florida

**Educational** | Solutions  
in Action  
Solutions for Energy Recovery  
& Dehumidification



### The Project:

Replacing two aging air handlers with new energy efficient units to support the main campus library. Engineering design provided by ASR Engineering, Tampa Florida, with Air Handling equipment provided by Tampa Bay Trane and energy efficiency dehumidification systems by Carolina Heat Pipe.

### The Solution:

Carolina Heat Pipe designed and installed their ST Mach 1-TRAHP™ systems into two Trane indoor performance Climate Changer Air handlers. One size 35 operating at 17,700 CFM and one size 30, operating at 15,000 CFM. Trane shipped a split section from both air handlers to CHP's Atlanta manufacturing site. The heat pipe systems were installed and charged ready for production use, then the completed splits were shipped to the job site. The heat pipe technology deployed by CHP were 2-Row controllable TRAHP™ systems into both air handlers.



### Performance Results:

The TRAHP™ systems provide 8° of precool and reheat while diverting 170 MBH and 145 MBH sensible energy away from the chilled water and boiler systems supporting the library. The new air handlers provide cool comfortable air to the library while the heat pipe systems provide a simple payback of approximately two years.

The heat pipe system requires only simple maintenance of periodic coil cleaning for the life of the air handler.

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