

Case Study

Location: Raymond Frye Complex,

Wellington, Kansas

Product: Armstrong Ultima® Templok®

Energy Saving Ceiling Panels

General

Contractor: Cormor



Raymond Frye Complex



The Challenge

The long history that endears the Raymond Frye Complex to the community presented multiple challenges as the county looked to reduce its energy spending and carbon footprint. Because it is a 35+ year-old facility, achieving this through upgrades to the roof and building envelope would be difficult and costly. Moreover, high demands were being placed on aging HVAC systems – equipment that was also

challenging to upgrade or replace on a limited budget – to maintain a consistent, comfortable temperature in spaces with constant swings in occupancy levels. Lastly, in a world where indoor Environmental Quality (IEQ) is increasingly important, the building needed new solutions to address everything from noise control to occupant well-being.

The Solution

These challenges made the Raymond Frye Complex ideal for an upgrade to an Ultima® Templok® ceiling. Key benefits include:

- Templok PCM technology passively cools and warms spaces to a comfortable 72° F, reducing demand on HVAC equipment and lowering energy consumption and costs.
- The ceiling's technology has the potential to reduce energy costs and consumption by up to 15%* by providing up to 35 BTU/SF of passive cooling.
- With the ability to naturally adjust heating and cooling effectively as a space's occupancy rises and falls, the PCM in the ceiling tiles absorbs and stores heat when a room in the Complex is occupied, then releases that heat as the room cools upon being emptied.
- As part of the Armstrong® Total Acoustics® portfolio, Ultima Templok panels offer total noise control (NRC+CAC) for sound absorption and sound blocking.
- * According to measured cooling energy savings in lab tests.

- Templok panels are part of the Armstrong® CleanAssure™ family of disinfectable ceiling panels, specialty ceilings, suspension systems, and trim that help make spaces cleaner and healthier.
- Important to the Wellington community's environmental mission was the fact that the ceiling panels are comprised of up to 41% recycled content, made in the U.S.A. of domestic and global content, and are Build America, Buy America Act compliant.

Old ceiling panels in the public bathrooms, kitchen, auditorium and community room in the Raymond Frye Complex were removed and replaced with Ultima Templok, totaling 5,128 square feet of new ceiling tiles.

"Installing the Ultima Templok is the exact same process as installing any suspended ceiling system. Our client benefits from the energy savings and there's no increase in labor costs for the installation," says General Contractor, Dwayne Corcoran, Cormor.

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The Solution (continued)

Impact and Outlook

With the Ultima® Templok® ceiling fully installed, the Raymond Frye Complex prepared for an active season of events and a summer promising many very hot days – putting the ceiling's acoustics and PCM technology to the test. So far, community members and the facility manager are very pleased.

According to County Adviser, Jack Potucek, the ceiling replacement and other improvements to the building and heavily trafficked auditorium made a meaningful difference to the public. Used as a major voting location and to host events such as the popular 4-H Fair, community members were heard commenting about the improved appearance and comfort of the facility. Jack Potucek reaffirmed, "Without question, the acoustics in the auditorium are vastly improved as well."

As part of the Department of Energy field validation study, the ceiling installation at the Raymond Frye Complex stands to have a broad impact by facilitating wider adoption of Ultima Templok ceilings – equipping buildings nationwide for greater energy efficiency and reduced carbon emissions. But in Wellington itself, one of the greatest values is that all of the people and groups that use and enjoy the complex over the course of the year benefit from Ultima Templok ceiling panels.

"The Raymond Frye Complex is typical of community and other public buildings in rural areas, where their age, budget, and remote location make upgrades to building envelopes and HVAC equipment extremely difficult," said Mick Dunn, Technical Sales Manager for Energy Saving Ceilings at Armstrong. "If it can work here – and it is – it can work anywhere. It's especially exciting to see spaces like this one embrace the technology because one ceiling upgrade can impact thousands and thousands of people."

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