



CASE STUDY

ST. JOHNSBURY ATHENAEUM | St. Johnsbury, Vermont

“The Athenaeum was built by individuals in the 19th century who embraced and promoted innovative technologies and design. Today, we continue this tradition with SageGlass.”

—Matthew Powers, Executive Director, St. Johnsbury Athenaeum

The Challenge

Built in 1871, the St. Johnsbury Athenaeum is the oldest art gallery in the country that still maintains its original design. One distinctive element of this elegant facility is its Victorian skylights, which illuminate the gallery with natural light and uniquely enhance the viewing experience of well-known masterpieces such as Albert Bierstadt’s Domes of Yosemite.

Unfortunately, natural light also threatens the Athenaeum’s collection of artwork and furnishings. When the skylights deteriorated beyond repair, leadership at the Athenaeum recognized an opportunity to use 21st-century technology to preserve a 19th-century treasure.

PROJECT:
Replace gallery skylights

ARCHITECTS:
Mesick Cohen Wilson Baker
Architects, LLC, Albany, N.Y.

Photos: The Domes of Yosemite in the main gallery of the Athenaeum under SageGlass skylights. Overleaf: Part of the skylight is set into place. **Photos** © 2012 Bob Jenks Studio.



“It was critical that the skylight preserve the authentic atmosphere people experience when they visit the Athenaeum,” said project architect John Mesick. “SageGlass allows us to do that.”

The Solution

Replacing the skylights with traditional glass would have required the addition of mechanical shades or other sun controls that would compromise the appeal of the gallery and the experience of visitors.

For this reason, Mesick selected a SageGlass® triple-pane glazing system for the Athenaeum’s skylights. SageGlass is electronically controlled dynamic glass that tints and clears on demand to allow optimal daylighting while preventing fading, glare and heat gain. SageGlass was glazed into the frame that replicates both the design and dimensions of four Victorian-era skylights, incorporating a layer of textured glass to match the look of the historic glass.

Benefits

SageGlass blocks up to 98% of total solar radiation that causes fading and other harmful effects. Unlike conventional glass, it allows optimal amounts of natural light to enter without unwanted heat gain during warm seasons. The triple-pane glazing system not only provides excellent thermal efficiency during Vermont’s cold winters, it also addresses concerns about humidity levels in the gallery and condensation on the glass.

SageGlass also helps the Athenaeum improve overall energy efficiency. With a very low U-factor, SageGlass triple-pane glazings help reduce energy consumption 50% more than single-pane glazings and 15% more than triple-pane glazings that use static glass. In a recent study, SageGlass triple-pane glazing achieved superior results over other glazing solutions, resulting in lower electricity costs, lower HVAC requirements and a smaller carbon footprint.

“The Athenaeum was built by individuals in the 19th century who embraced and promoted innovative technologies and design,” said Matthew Powers, the Athenaeum’s Executive Director. “Today, we continue this tradition with the application of SageGlass in our art gallery. SageGlass will provide energy savings, protect our important collection from harmful UV solar radiation and enhance our visitor experience.”



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