

## Skylight Retrofit

**Owner:**

Quabbin Regional School District

**Architect:**

LPBA / Architects, Inc.

**General Contractor:**

Kronenberger & Sons  
Restoration, Inc.

**CPI Rep:**

Wilson and Wilson



### Quabbin Regional High School retrofits a deteriorated fiberglass skylight with CPI Daylighting's Quadwall® featuring RST - Removable Skin Technology

After only a decade, the skylight at Quabbin Regional High School in Barre, Mass., had deteriorated beyond repair. Thermal and wind movements, repeated leaks and yellowing compromised the skylight's ability to perform to the point that it was non-compliant with current energy and state building codes.

In fact, an investigation by the Massachusetts School Building Authority called the skylight "structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children where no alternative [to replacement] exists."

"The product they had up there was outdated and it wasn't worthwhile to put back," said Elvin Phillips, Boston



Bay Architects, Allston, MA. “In our research, we found the CPI daylight system and we used it because we liked the detailing and that it didn’t rely on sealants. The energy value was just so much better and it looked better – it’s a slick looking product.”



The architectural team specified a 5,000-sq.-ft. Quadwall barrel vault skylight with additional high performance insulation and two single slope 147-ft.-long by 14-ft. wide skylights running the length of the barrel vault on either side. All three were specified in clear over clear matte to provide the maximum daylight without any glare.

“The added insulation is just so much higher than the other products to consider with a thinner envelope,” said Phillips. “This is a huge skylight so the amount of energy mathematically that you save made a compelling argument. The school will probably make their money back on that within five to 10 years, that’s for sure.”

The Quadwall system is an assembly of two independent translucent insulated panels, resulting in one integrated, high-performance daylighting system. Quadwall provides indefinite building envelope protection with its removable exterior glazing feature. Scalable, the Quadwall system can be configured with additional insulation (chosen for Quabbin), Class A fire-rated roof assembly, sound reduction, dynamic shading, additional structural performance or even military forced entry resistance. Joined by a mechanically interlocking connection, the dry-glazed Quadwall system eliminates the need for vulnerable adhesives, adding durability, as well as even light distribution with the system’s patented tight-cell technology.

Providing daylight to the school’s multi-purpose space that serves as a gym, cafeteria and more for its student body of 1,200, the skylight has already made a big impact in the past year since its installation.

“It’s a nice bright area now. Schools that come here for sporting events see the skylight and say, ‘Wow! Is this a private school?’ No, we are a public school,” said Facilities Director Claire Barnes, Quabbin Regional School District. “Everything is working fine; the skylight is tight – the way it should be.”

*CPI Daylighting pioneered the use of polycarbonate translucent panel systems for architectural use in 1980. Today, CPI continues to offer new and innovative daylighting products, including skylights, wall lights and canopies for any commercial, industrial and institutional application, with complete services from manufacturing to design and installation. CPI products enhance the sustainability of any high-performance building project through daylight transmission levels, optimized insulation values, thermal performance and recycled content.*