



THE SOLUTION SERIES

Recognizing *superior solutions* to construction and renovation challenges

Needham Public Library Needham, MA

Gleeson Powers Inc.
(GPI)

CHALLENGE

The beautiful Needham Public Library was originally built in 1915. As the town grew over the years, the library was bursting at the seams. Periodic remodeling was not sufficient to keep up with the growth and took away from the beauty of this historic building. The decision was made to strip the building back to the original structure and then to create a new facility with double the space and in keeping with the Georgian Revival architecture. While the look would complement the existing structure, the Massachusetts Energy Code Chapter 13 would require inclusion of an air barrier to control the movement of air and moisture into and out of the building for protection of the new structure and its occupants and increased energy efficiency.

SOLUTION

With dozens of different systems to choose from, Ann Beha Architects determined that a fluid-applied air barrier system would provide better protection than traditional moisture barriers and avoid the installation problems associated with other types of systems. The ExoAir™ Air Barrier System from Tremco was selected.

The ExoAir 120 is a monolithic (seamless) elastomeric system designed to be sprayed on exterior above-grade walls for a fully adhered layer of protection. Used with ExoAir 110 Self-Adhered Air & Vapor Barrier Membrane, continuous protection was ensured and the air barrier could be fully tied into the roof despite numerous roof elevations and intricate wooden soffits at the top of the building. Compatibility is essential for long-term protection, so Tremco's ExoAir TWF Self-Adhered Thru-Wall Flashing Membrane and sealants completed the system. By having a comprehensive air barrier system from Tremco, Gleeson Powers was able to provide assurance of continuity at every transition, tie-in and overlap. As a final quality control measure, routine testing was done to ensure consistent coverage with a wet-mil thickness gauge. Though reminiscent of the past, Needham Public Library is now energy-efficient, occupant-friendly and ready for the next century.

THE TREMCO SOLUTION

ExoAir 120 Fluid-Applied Air & Vapor Barrier Membrane, a seamless, elastomeric membrane designed to be spray-applied to exterior above-grade walls for a fully adhered layer of protection. **ExoAir 120 R**, a roller-grade version, is also now available for fast, easy application where spray application may not be feasible or for touchup work.

- Capable of resisting stack effects, fan pressurization and wind pressure.
- Water-based and can be applied to damp or dry surfaces without the use of a primer.

ExoAir 110 Self-Adhered Air & Vapor Barrier Membrane,

- Used as a transition membrane into doors and window openings.
- Used also to tie into metal on windows, doors and curtainwall systems

ExoAir TWF Self-Adhered Thru-Wall Flashing Membrane,

- Typically installed in cavity wall construction, transitioning from ExoAir 120 and 110 to areas that require a masonry flashing material.

ExoAir Air Barrier products meet or exceed the industry's most rigorous standards for air permeability:

- ASTM E-2178-01 Standard Test Method for Air Permeance of Building Materials
- Massachusetts State Building Code 780 CMR 13 Energy Conservation Requirements for the Building Envelope
- CCMC Technical Guide for Air Barrier Materials



TREMCO®