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Enhancing lives**

Chenequa Fire Station

Chenequa Fire Station in Hartland, WI decided to make a big change and install radiant heating and a snow and ice melting system. This now gives the fire station peace of mind during the winter months. na.rehau.com/projects



Radiant and snow and ice systems maximize efficiency and increase safety for fire department

When the Chenequa Fire Department in Chenequa, Wisconsin decided to install a new heating system, a technology-savvy village board member suggested that the best solution was a radiant heating system.

Under the watchful eye of this close-knit, upscale community of 600 residents, the village board knew that extensive design guidance and technical recommendations would be required. They called upon the proven leaders in the industry – the team of REHAU and Rundle-Spence Manufacturing Company.

"This particular project had a variety of structural and environmental challenges," explained Andrew Csoke, REHAU regional unit manager. First, the firehouse's traditional heating system allowed warm air to rise above the ground level of the firehouse where the heat was needed most. Additionally, the firehouse is located on a hill and has a steep driveway, which can be hazardous when ice forms during Wisconsin's notoriously cold winter months. The firehouse's close proximity to a major intersection was also a hazard that needed to be considered.

Radiant Heating

Chenequa's radiant heating system works by circulating heated fluid through 3,000 ft (915 m) of RAUPEX O₂ Barrier crosslinked polyethylene (PEXa) pipe installed under the firehouse floor.

Not only could the radiant system provide better overall heating of the firehouse, but it also provided a quick method for melting snow off of the fire trucks. According to Andrew Csoke, "Now, after a run, the firefighters can pull the trucks in and just let them sit. In no time at all the ice and snow melt. Plus, they can lay their hoses out on the ground and come back to find them dry as a bone – much quicker than ever before."

Snow and Ice Melting System

The exterior conditions at the firehouse required a much different approach. REHAU's hydronic snow and ice melting system (SIM) was selected because it is designed to quickly and efficiently remove snow and ice from vehicle and pedestrian pathways, such as the sloping drive in front of the firehouse. The SIM system also minimizes snow removal and related costs.

The complete Chenequa SIM system comprised 1,000 ft (305 m) of RAUPEX pipe and an automated control system. A heated antifreeze solution circulates throughout the RAUPEX pipe installed underneath the exterior concrete slab.

"The SIM system now allows our firefighters to focus on what they do best – saving lives – and not worrying about a truck sliding into the intersection or a pedestrian slipping and falling outside the building," explained Jeff Kante, Fire Chief.



Project: Chenequa Fire Department in Hartland, WI

Construction type: Fire station renovation, opened in 2000

Project scope: 4,000 ft (1,220 m) of RAUPEX pipe

Distributor: Rundle-Spence Manufacturing Company

REHAU systems used: Radiant heating and snow and ice melting (RAUPEX® pipe, EVERLOC® fittings, PRO-BALANCE® manifolds).

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