

in one select use, making it mandatory for all commercial car wash facilities to have just such a slab-warming system in place to prevent dangerous accumulation of ice.

"I guess I'm not surprised," says Hanse Cromer, a manufacturers rep with Steffens-Shulz, which has offices in Columbus and Dayton. "Even on a 35-degree day,

where water could be used without risk, at 5 o'clock it's likely that anything wet would quickly turn to ice."

Cromer helped out John Long of John Long Plumbing & Heating,

London, Ohio, design a snowmelting system for a new car wash also in London, a suburb of Columbus.

The snowmelt design called for placement of 4,200 lineal feet of 3/4-inch RadiantPEX tubing supplied by Watts Radiant. The tubing was embedded in concrete slab entry-

RADIANT FOR THE OUTSIDE

ways, in the four manual wash bays, and in both fully automatic car wash bays and around all water drainage.

In the mechanical room, the rep and contractor solved two needs — hot water for all wash systems, and a heated glycol mix for the extensive snowmelt grid — by using a 750 mbh sealed-combustion, fan-assisted Pennant boiler/water heater by Laars, a 200-gallon storage tank and a brazed-plate heat exchanger, also by Laars.

Long separated the two heating functions. Water for car wash use is heated directly by the natural gasfired, 85 percent AFUE boiler and is held in the insulated storage tank. The glycol solution that circulates through the embedded snowmelt system receives its heat from the high-volume heat exchanger.

"Rather than maintaining high mass, standby energy at considerable cost, the two-stage boiler meets the need easily," Long explains. "It quickly injects incremental energy into the system loops, or to the heat exchanger on demand — a real benefit for an installation like this one."

To handle the thermostatic mixing, controls and fluid flow to both systems, Long built a control panel, which he hung near the boiler.

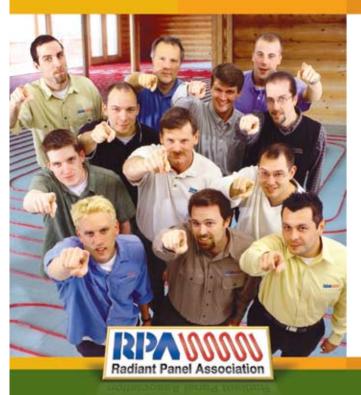
"We put the boiler, control panel, heat exchanger and storage tank in a small mechanical room located at the center of the car wash facility," Long adds. "Space was tight, so the boiler's small footprint was a perfect fit for our needs."

A sophisticated microprocessor control monitors outdoor temperature and, at 36 degrees Fahrenheit, the snowmelt system is activated. The outdoor-reset system then sets system temperatures. For the most part, the hydronic system is set to idle throughout the winter months, with programmed instructions to keep slab surface temperatures at a steady 35 degrees.

"It works beautifully," says **D.J.**Jones, one of the car wash owners,
"even during and after heavy snowfalls." Jones is well-known in the area,
having helped Ohio State University
win the Rose Bowl in 1997. He played
one year for the Pittsburgh Steelers,
but was forced out of his football
career with a neck injury.

"Most of the systems that we looked at used two boilers for a car wash application like ours," Jones adds. "But the boiler, controls and system operation Long installed was a better solution. It was less expensive, and the boiler's high efficiency gave us good use of our energy dollar, too."

Of the boiler's 750 mbh capacity, it was calculated that a maximum of 300,000 Btus would be required for all commercial wash water needs with all bays loaded. The remaining capacity serves the snowmelt system's needs.



WHERE YOU BELONG

The Radiant Panel Association is the association whose goal it is to grow your business through our extensive education opportunities, our thorough certification programs and our network of industry experts.



BECOME Part of the Largest Growing Network of Radiant Panel Experts.



STAY Ahead of Industry Curves and Profit from Industry Trends.



GAIN a Partner to Help Grow Your Business.



IMPROVE the Quality of Your Installations Through Education and Instruction.



ENJOY Recognition through Achievement.

Join the RPA today, and get **FREE** access to on-line classroom training.

Visit www.RadiantPanelAssociation.org and Join the RPA Today.