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# Healthcare Facilities

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## GREENING HEALTHCARE

Strategies to reduce embodied, operational carbon in facility designs

CHES honours 2023 awards recipients  
Long-term care design under the microscope  
Modular wall system integration in healthcare settings

# REJUVENATING AGING INFRASTRUCTURE

Ontario long-term care home puts residents, environment first

By Jeff Weir



▲ Albright Manor is a 231-bed long-term care home in Beamsville, Ont. The facility embarked on a rejuvenation of key HVAC equipment and controls, and other ancillary systems, to achieve emissions reductions and savings for the day-to-day costs of maintenance and operations within the facility.

Long-term care facilities in Canada are faced with many competing challenges. An outstanding resident experience and an optimized environment of care are of great importance to the administrative team. Unfortunately, these key priorities can be severely impacted by aged HVAC equipment. The reliability of older systems and building controls can result in discomfort to everyone in the facility. Rejuvenating aging mechanical systems can be highly impactful, improving comfort and the environment of care for occupants, as well as helping to reduce a facility's car-

bon footprint and keep overall operating costs under control. However, funding these programs competes against other critical priorities and can deter any project from even getting started. Albright Manor, a long-term care home in Beamsville, Ont., faced this problem and turned to Trane for guidance.

#### THE POWER OF PARTNERSHIP

Albright Manor's senior executive team wanted an experienced collaborator that could assist them through the entire process, starting with a preliminary needs assessment

that would provide an understanding of the magnitude of the proposed mechanical upgrade project. This included costs associated with completing the work as well as benefits like energy and greenhouse gas emissions reduction goals, among other savings opportunities, which added to the attractiveness of the business case.

The level of detail provided helped prepare Albright Manor to apply for a grant from the Investment in Canada Infrastructure Program. The facility was successful, receiving just over \$4.5 million and assurance to move forward with the rejuvenation of key

HVAC equipment and controls, and other ancillary systems.

Albright Manor collaborated with Trane to maximize the use of the funding to replace outdated equipment with systems that would not only improve the environment of care but would also bring environmental responsibility to the forefront.

Senior leadership wanted to achieve emissions reductions and savings for the day-to-day costs of maintenance and operations within the facility. This would provide an opportunity to direct even more savings toward the resident experience.

The scope of the overall project was comprehensive and included installation of new high-efficiency cooling equipment, replacing a 22-year-old chiller; the upgrade of 10 air handling units and adjustment of air volumes for better comfort conditions; installation of four high-efficiency humidifiers; and replacement of the building automation system with a state-of-the-art system that allows for control of heating, cooling and ventilation equipment.

These changes are projected to result in

\$63,816 in energy savings and an estimated \$22,000 in water savings per year. Annual emissions reductions of 194 tons of carbon dioxide are also anticipated.

**A LESSON IN COMMUNICATION**

Albright Manor and Trane recognized there would be significant benefit to communicating key aspects of the overall rejuvenation program to both staff and residents of the facility. Through further discussions, they decided to extend this proactive communication plan to residents' immediate families so they knew their loved ones were being cared for in the best possible way.

Working together, Albright Manor and Trane planned a staff and resident information day event. It was held in the front entrance area of the building where attendees enjoyed lunch, visiting children participated in games and a booth with Trane industry experts shared information about the program and its benefits to residents, staff and the environment. The event provided the opportunity for staff and residents

to understand the project's full scope — it was not just about replacing aging equipment in the building, it would improve residents' overall care, too — and how their actions could further impact results.

Albright Manor has demonstrated how much can be accomplished when enlisting the right partner to guide an organization through many competing priorities. The foresight of Albright Manor's leadership team, with the support from their board, provincial and federal governments, and Trane, has resulted in a successful outcome for their facility. ■

Jeff Weir is a senior business advisor with the comprehensive solutions team at Trane in Canada. Jeff is a 12-year veteran of Trane. With a career that spans more than 35 years, he has supported clients from coast-to-coast as they work to make their facilities energy efficient, healthier for occupants and perform at optimal levels. Jeff is a certified energy manager, certified engineering technologist and an ASHRAE award-winner. He is also passionate about doing the right things today so that we can all enjoy a better environment tomorrow.



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