

## Nursing Home Installs ERVs to Provide 100% Outdoor Air and Remain Energy-Efficient

### AT A GLANCE

#### OVERVIEW:

- ♦ Project: Lakeview Manor Nursing Home in Weyauwega, WI
- ♦ Building type: Multifamily/institutional assisted living
- ♦ RenewAire ERVs installed:
  - 5 HE2XRTs units

#### RESULTS:

- ♦ Enhanced IAQ
- ♦ Energy savings of 16 tons (cooling) and 584,381 btu/hr (heating)

### CHALLENGES

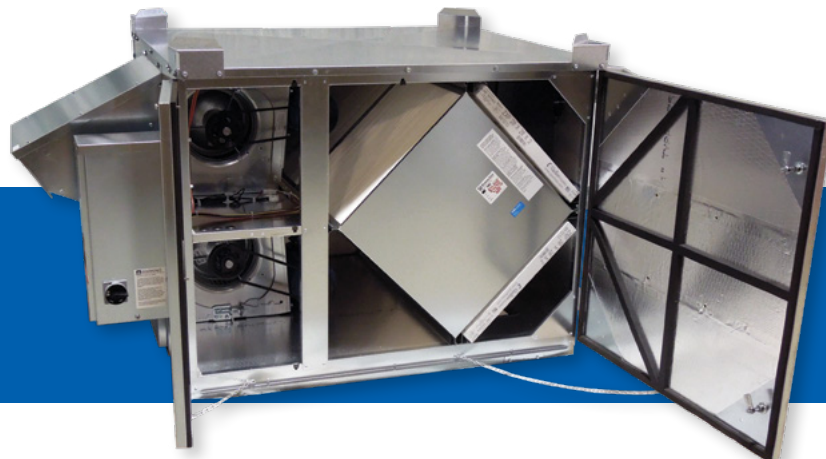
- ♦ Eliminate cold drafts in tenant's rooms
- ♦ Provide fresh, healthy air in facility
- ♦ Save energy and operating expense
- ♦ Reduce environmental emissions
- ♦ Simplify design and increase life of HVAC system
- ♦ Meet ventilation codes

### SOLUTION

Nursing homes are unique in that they can require up to 100% outside air, placing a tremendous load on your heating and cooling equipment. **By installing RenewAire energy recovery ventilators, the outside fresh air is preconditioned by recovering up to 70% of the heat and air conditioning in the exhaust airstream. Not only does this represent a significant energy savings, it can also greatly simplify your heating system design and extend its life.** Ancillary furnaces can be sized to temper air in the range from 45°F to 70°F, instead of having to temper air from -15°F. This reduces temperature and condensation stresses to the heating equipment, and provides for far more consistent and comfortable air supplied to the facility.

Lakeview had a problem with cold drafts across the floor of the tenant's rooms. Each room had its own wall-mounted electric heating and air conditioning unit, which also supplied fresh air. The solution was to capture the exhaust air on the roof, pass it through the RenewAire unit and use the energy from the exhaust air to precondition the fresh air. This conditioned air is then brought up to room conditions in the winter using inline gas furnaces and delivered to individual rooms. This eliminated the electric resistance heat (very inefficient) and reduced the load on the air conditioning units in the summer. The savings are substantial and the rooms are comfortable!

Lakeview Manor also took advantage of financing through the State WEI-2 program, rebates from the servicing utility, and additional financial incentives from the State Medicaid program, further maximizing the advantages of adding energy efficient and environmentally friendly heating and cooling equipment.



**Five RenewAire HE2XRT ERVs**  
used in this project: