



# Project Case History

## Transfer fans slash A/C system cost while improving bedroom comfort in D.C. renovation

**The challenge:** Find a way, during major renovation of a Washington D.C. apartment building, to avoid the cost of 95 additional split system A/C units by transferring cooled air from living areas to windowless bedrooms.

**The solution:** Tjernlund AireShare™ Room-to-Room Ventilators fit into narrow wall cavities to provide optimum cool air movement with minimum noise transfer.

During one-and-one-half years of planning the renovation of 2000 Connecticut Avenue, an 87-year-old Art Deco style apartment building in Washington D.C., Duke Kelly, owner of Falls Church, Va. based GSSN HVAC Solutions, had many hurdles to overcome. One was finding the most cost-effective way to cool

bedrooms newly formed with partition walls.

"Metal stud walls were installed in the 700 to 900 square-foot studio apartments to form 95 'junior bedrooms'—bedrooms without windows," Kelly explained. "To avoid the expense of putting separate split A/C units in each bedroom...we wanted to use through-wall fans that transferred cooled air from the living areas into the bedrooms."

However, to gain maximum living space, plans called for the new partition walls to be constructed with 2" x 3" studs instead of standard 2" x 4" studs. Kelly noted that "In D.C., every extra inch of living space counts."

Kelly had used various transfer fans on previous jobs, but those brands did not offer models to accommodate 3" stud walls. And those other brands were "noisy."



*Above: Low profile diffuser is located near ceiling in the bedroom.*

*Below: Unobtrusive grille covers AireShare fan unit placed in wall near floor between living room and bedroom.*



*Apartment building, built in 1923, underwent a total renovation of its A/C system. Ninety five "Junior bedrooms" used AireShare transfer fans for comfort.*

After checking his usual sources and unable to find an alternative fit, Kelly turned to the Internet and Google searched "Room-to-Room ventilators" where he found Tjernlund's AireShare™ product line. The low-profile AireShare™ fan unit fits between the studs into the narrow wall cavity which is used as a passageway for the conditioned air. Moreover, unlike straight through transfer fans, sound and light cannot pass directly from one room to the other.

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***"They are quiet, clean, good looking and, above all, keep the bedrooms cool and comfortable. Plus they were easy to install."***  
***Duke Kelly, Contractor***

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Having been in the oil heating business, Kelly had experience with the SideShot® Side Wall Vent Systems and other Tjernlund problem-solving products over the years.

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Above: AireShare™ ventilators were used in metal stud walls which separate bedrooms from living areas.

Below: AireShare™ fan is being installed in cutout between wall studs and hardwired.



"Knowing what type of products they offer and their quality made the choice easy." Kelly then contacted Paul Davis at Noland Company in Frederick, Md. to discuss the AireShare™.

"We all agreed, AireShare ventilators fit the bill," said Kelly.

"We probably would have stopped looking and purchased additional A/C units in each bedroom, but the owner's charge to us was: Conserve as much living space as possible while providing the comfort tenants expect," said Kelly.

Each AireShare™ ventilator is located so the cool air is drawn in near the floor in the living area and transferred up through the wall cavity and out of a diffuser near the bedroom ceiling. The fan is controlled by a wall switch located adjacent to the light switch at the bedroom entrance.

"Everybody likes them," Kelly said. "They are quiet, clean, good looking and, above all, keep the bedrooms cool and comfortable. Plus they were easy for me to install."



Split system air handler located in living area.



Split system condensers installed on roof.

# AireShare™ Ventilators

Make hot or cold rooms  
more comfortable

Room to Room
Level to Level




**The perfect companion  
for homes with:**

- Split System, PTAC & Window A/C
- Space Heaters, Stoves, Fireplaces & Cool Lower Levels
- 50% Quieter than Other Fans





## TJERNLUND PRODUCTS, INC.

1601 Ninth Street White Bear Lake, MN 55110-6794  
 Phone: 651.426.2993 800.255.4208 Fax: 651.426.9547  
 Visit our web site: [www.tjernlund.com](http://www.tjernlund.com)