

CASE STUDY *new construction*

BUILDING TYPE
multifamily
supportive housing

SIZE
92 units
studio apartments

COST PER UNIT
\$XXXXX
any descriptor

PERMITTED
2019

OWNER
Downtown
Emergency Service
Center (DESC)

ENGINEER
Rushing

Balanced Ventilation with Heat Recovery

Hobson Place South SEATTLE

PERFORMANCE

To help address the Central District's substandard air quality due to proximity to highways and industrial facilities, DESC wanted a balanced ventilation system with heat recovery for Hobson Place South. In addition to improving indoor air quality, the system will provide additional thermal comfort for residents, and provides more ventilation than code requires without a dramatic increase in operating costs.

The Swegon RX system was selected to achieve the advanced ventilation needs within budget constraints while meeting Passive House standards. Use of a centralized system to provide both balanced ventilation and local kitchen exhaust decreases the number of exterior ventilation holes needed, reducing air leakage. The system also has low cross-leakage, and a heat recovery efficiency of up to 85%. Additionally, bringing the ductwork inside by increasing the top floor's ceiling height increased the overall efficiency of the heat recovery system.

INCREASES FRESH AIR FLOW BY
2X
per unit
VERSUS EXHAUST-ONLY SYSTEM OR CODE MINIMUM

ACHIEVES AN
85%
heat recovery efficiency



TECHNOLOGY
Swegon Gold RX
Balanced Ventilation with Heat Recovery



LESSONS LEARNED

- ✓ Hobson was substantially designed before the decision was made to pursue a high level of building performance. Changing the design to improve the ventilation system and bring the ductwork inside the building envelope would have been less costly had decisions around efficiency been incorporated into early designs. While funding for early design is sometimes limited, it is continually proven that money spent on early integrated design always results in better, more efficient design.

Photo by Runberg Architects

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