# SAMSUNG

### VRF Case Study

## Old meets new.

Samsung HVAC and Norbryhn Equipment Company teamed up to restore one of the oldest mixed-use building in Boise.



#### Project: Tenth and Main | Product: DVM S Heat Recovery | Location: Boise, Idaho



### CHALLENGE

In 2014, Sawtooth Development Group acquired the 100-year old Tenth and Main building that was once a part of Boise's historic Mercantile District. As one of the oldest mixed-use buildings in the heart of downtown, the team's goal was a full transformation of the building to create a diverse retail and business environment.

Their plan was to outfit the building with modernized mechanical, electrical, and plumbing systems in order to accommodate office space on the top levels, while also opening the ground level up to the public with multiple retail spaces including a coffee shop, bodega, deli, beer bar and restaurant, wine tasting room, and salon.

One of the main challenges the design team faced was finding a reliable and efficient HVAC system that could provide heat at low ambient temperatures due to the extreme climate conditions Boise experiences in the winter.

#### SOLUTION

The Boise mechanical contractor market expects commercial HVAC sales to include a competitive equipment offering with superior design and service support. That's why the design team renovating the Tenth and Main building turned to Norbryhn Equipment Company, a Samsung manufacturer representative in Nampa, Idaho, who recommended a design that featured Samsung HVAC's DVM S Heat Recovery Variable Refrigerant Flow (VRF) system.

Samsung's DVM S Heat Recovery system provides high heating performance at -13°F (-25°C) and is equipped with advanced intelligent defrost logic and a rotational defrost option, making it a smart solution for commercial buildings in areas that experience low outdoor ambient temperatures. Heat Recovery systems add the capability to heat and cool separate zones simultaneously, which is ideal for mixed-use spaces like the Tenth and Main building.

The Tenth and Main's open office floor space and exposed ceiling design features the Duct S unit, which integrates perfectly with the building due to its modern aesthetic. Private offices and conference rooms feature the Wind-Free™\* Mini 4-Way Cassette, which is designed to fit in a standard 2x2 foot ceiling grid without interfering with adjacent ceiling tiles, lights, or sprinkler systems. In addition, the Wind-Free™\* Mini 4-Way Cassette is equipped with Samsung's exclusive Wind-Free™\* Cooling technology which allows the unit to maintain the desired temperature in the space and eliminates cold drafts to further optimize occupant comfort.

Norbryhn incorporated Samsung's Data Management Server (DMS) + 2.5 BACnet Gateway into their proposed design to accommodate the need for central control through a Building Management System (BMS). Samsung's DMS 2.5 is a standalone web server that allows for remote control and monitoring of Samsung HVAC systems. The DMS 2.5 + BACnet Gateway provides the functions of the DMS 2.5 and serves as an interface for integration with BACnet-based building management systems.

In the end, Norbryhn provided an HVAC solution that exceeded the design requirements by leveraging Samsung's superior products and exclusive features to compliment the building's historic beauty.

#### To learn more about Samsung DVM S, visit SamsungHVAC.com

\*The Wind-Free<sup>™</sup> unit delivers an air current that is under 0.15 m/s while in Wind-Free<sup>™</sup> mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

