

Greenheck Project Profile

191 N Chester

Birmingham, MI

- **Architect:**
Biddison Architecture + Design
Birmingham, MI
- **Engineer:**
Ghafari Associates
Dearborn, MI
- **Contractor:**
Systematic Heating & Cooling, Inc.
Clarkston, MI
- **Greenheck Representative:**
Michigan Air Products
Troy, MI



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The Challenge

- **Need for energy efficiency.**
- **Provide high-level air filtration, minimizing viruses.**
- **Removal of harmful vehicle exhaust from enclosed garage.**

The Surnow Company is a real estate development and property management firm located in Birmingham, Michigan. The company has a reputation for its treatment of buildings with architectural or historical significance.

A 94-year-old building in Birmingham is a prime example and part of an overall renaissance of buildings in the community.

191 N Chester is a former church built in 1926. Surnow Company repurposed the property, preserving the exterior while building an addition comprised of glass,

metal, and stone for a refined, modern look. The transformation from a church to a 27,000-square-foot, Class A office space required major renovations to the mechanical and electrical systems, including the heating, ventilating and air conditioning (HVAC).

Older buildings have many qualities, such as architectural features not seen on many newer structures. However, few have the energy efficiency required to attract tenants. The building owner was particularly concerned about providing an energy-efficient workplace for tenants. The COVID pandemic of 2020 also raised concerns over the need for air filtration capabilities to minimize the spread of viruses.



Greenheck's Solution

- **Energy Recovery Ventilator – ECV-30**
- **Make-Up Air – DG**
- **(2) Louvers – ESD-635**
- **Exhaust fans – Models CUE, SE, SP-A**

The building owner's concern for energy efficiency and indoor air quality were reasons for selecting Greenheck to provide an effective solution. Model ECV-30 with the polymer core provided better energy transfer efficiency and a lower pressure drop to reach the required levels. Its size also made installation easier for the smaller space in the mechanical room. The ECV-30 allows for the use of MERV 8 and MERV 13 filtration. The filtration combined with the HVAC system's high ventilation rates improves indoor air quality and meets code requirements. Filtering and ventilation minimize issues



with harmful particles, including those particles causing illness. Intake and exhaust louvers (model ESD-635) protect wall openings for the energy recovery unit.

Model DG provides 100% outdoor air to the building's enclosed heated executive parking garage. The DG works in tandem with a model SE exhaust fan equipped with the energy-efficient Vari-Green® motor to ensure

the garage has a constant source of fresh air while exhausting harmful fumes from vehicles.

Exhaust fans, models CUE and SP, address the indoor air quality of restrooms and other parts of the facility. Both use direct drive, low maintenance Vari-Green motors, and are certified for AMCA Sound and Air.

The Results

Greenheck's ventilation products position 191 N Chester to meet the needs of businesses bringing back their office staff in a post-pandemic world. The building's owners have confidence that

the energy recovery ventilator will provide quality indoor air and energy savings. Jason Zilka, owner of Systematic Heating & Cooling, Inc., was impressed with the Greenheck ERV-30

product. "I highly recommend this unit for its efficiency and quiet operation. The level of quality in its construction, ease of installation and maintenance is impressive."

