



LOCATION

ST. PAUL, MN



**GENERAL & INSTALL
CONTRACTOR**

JE DUNN CONSTRUCTION
& HARRIS CO.



**ENGINEERING
FIRM**

HGA



**REP
FIRM**

SVL, INC.



After more than 100 years of service, the Capitol showed signs of deterioration.

The Minnesota State Capitol, an architectural landmark designed by Cass Gilbert, required a comprehensive restoration to preserve its historic significance while upgrading it for modern use. After more than a century of service, the building needed improved infrastructure, enhanced indoor air quality, and updated systems to support today's occupants—all while maintaining the integrity of its iconic design. The goal was to seamlessly integrate modern HVAC performance into a historic structure without compromising its aesthetics or usable space.

~ The Challenge

Integrating a modern HVAC system into a historic building presented significant challenges. The original structure was not designed to accommodate contemporary ductwork, and any visible modifications risked disrupting the building's architectural character. Engineers also needed to maintain full functionality of the Capitol during renovation, including providing temporary heating, cooling, and ventilation for legislative sessions. Additionally, space constraints limited traditional HVAC approaches. The team had to find a solution that would avoid intrusive elements like soffits, chases, and dropped ceilings while still delivering high-performance air distribution.



The consulting engineers had to decide how to update and integrate new mechanical systems and products while preserving the historical integrity of the building.

~ The Solution

The **BlueDuct®** system was selected for its ability to deliver high-performance air distribution through an underground installation. By routing ductwork below grade, the system preserved the building's original architecture and eliminated the need for visible mechanical components within occupied spaces. The BlueDuct's pre-insulated, airtight, and watertight design ensured energy-efficient operation while protecting against common issues such as air leakage, moisture infiltration, and long-term degradation. Its durability and flexibility made it an ideal fit for a historic renovation where both performance and preservation were critical.

~ The Result

The installation of **The BlueDuct®** enabled the successful modernization of the Capitol's HVAC system without compromising its historic character. The system improved indoor air quality by reducing the introduction of pollutants and allergens while delivering reliable, efficient air distribution throughout the building. With minimal maintenance requirements and long-term durability, **The BlueDuct®** provides a sustainable solution that will support the Capitol for decades to come—helping preserve this landmark while ensuring it meets the needs of future generations.