

LIBRARY EXPERIENCE

Cooley Town Center

Renovate a two story building for Cooley Law School for use as a library, student assembly and study area.

Complete replacement of the existing mechanical and electrical systems with new. The final HVAC system consisted of a heat pump system with open cooling towers, heat exchangers and energy recovery units. The building was designed and constructed to become a LEED certified building. Matrix completed the energy model and commissioning to meet LEED requirements.

Key Elements in Scope of Work:

- Replace HVAC system to a new energy efficient system
- Energy Recovery Ventilation Systems
- Building Automation System
- Plumbing Systems
- Audio-Visual System coordination
- Lighting design
- Power Distribution
- Data Wiring

Lansing Library and Historical Center

Renovate 9,000 square feet of the Lansing Library and Historical Center.

Matrix reconfigured the mechanical and electrical systems in the building to match the new floor plan layout. The new floor plan layout was designed to better match the needs of the space.

Key Elements in Scope of Work:

- Reconfigured HVAC system to match new floor plan
- Added VAV boxes and exhaust fans to match the new zoning requirements for the space
- Audio-Visual System coordination
- Lighting Design
- Power Distribution

Reed City Schools

50,000 square foot addition onto the existing school including a 3,500 square foot Media Center

Matrix designed a new mechanical and electrical system to serve the new school addition and Media Center.

Key Elements in Scope of Work:

- New VAV HVAC system with perimeter heat
- Plumbing design for space
- Audio-Visual System coordination
- Lighting Design
- Power Distribution

State of Michigan - Library and Historical Center

Matrix was the prime consultant and engineer to replace all temperature, mechanical, lighting, and related controls throughout the State of Michigan Library and Historical Center with a new direct digital control (DDC) system. This DDC system included LON and/or BacNET interoperable system controllers and Tridium network area controllers. The centralized DDC control system enabled remote operator, trending, scheduling and alarm features. All pneumatic controls were converted to DDC with new electric actuators and/or variable frequency drives to reduce energy consumption. Matrix performed the required fieldwork, complete drawings indicating the existing controls and their associated equipment locations and provided a construction cost estimate. The total area of construction was 350,000 square feet.