

City of Columbia Fire Station Number 7

Columbia, Missouri



Fire Station Number 7 replaces an older, outmoded building. From the outset, the facility was designed to incorporate LEED® guidelines and was registered for a LEED® Silver Rating.

A ground-source geothermal exchange HVAC system provides energy-efficient heating and cooling to every space in the building.

An air-to-air energy recovery unit provides a constant stream of preconditioned fresh air to the building, ensuring a healthy indoor working environment.

Clerestory windows allow natural light into the building, reducing electrical lighting loads and further improving the indoor working environment. In addition, the building is oriented to utilize these windows for passive solar collection during colder months.

Exhaust gases from the fire trucks are captured by a specially design exhaust containment system in the vehicle bays.

An audible tone alert system was integrated with the building's lighting system to notify occupants when their emergency services are required.

A dual fuel, natural gas / propane generator with automatic power transfer provides backup electrical power to the building in the event of a power service outage.

A new construction site allowed for several rain water collection strategies, including porous concrete paving, a rain garden and a bio-retention basic for cleansing storm water run-off.

Certified, sustainable wood products and recycled content materials were used throughout the building. Regionally-available products were used extensively to reduce energy consumption and cost during delivery.

Project Data

- 7,900 sq. ft.
- Ground-source geothermal exchange HVAC system
- Air-to-air energy recovery unit
- Enhanced insulation throughout
- Clerestory windows
- Porous concrete paving
- Storm water retention basin
- Natural gas / propane powered back-up generator
- Exhaust containment system in vehicle bays
- Audible tone alert system
- Completed 2009
- Total cost: \$1.77 million
- LEED® Silver Rating

Contact

Columbia, Missouri Fire Department
Chuck Witt, Assistant Fire Chief
(573) 874-7391