

## GOAL

**Conserve energy through demand-controlled ventilation (DCV), which automatically adjusts ventilation to match fluctuating occupancy levels.**

## APPLICATION - MIT UNDERGROUND GARAGE

An AIRxpert 7000 configured for sensing carbon monoxide (CO) is being used to help save energy in MIT's new 676-car underground parking garage. The primary CO sensor and its redundant backup unit that monitor the entire garage as well as the loading dock are laboratory-grade instruments that are centrally located in the AIRxpert 7000 cabinet. Every data point in the accompanying graphs came from these two sensors. Both sensors can be calibrated in five minutes.

Data from each monitoring point in the garage is continuously exported to Andover Controls through a BACnet interface. Andover Controls then automatically adjusts fan speeds and damper positions to provide ventilation only where it is needed to keep CO at conservative levels.

## BENEFIT

The graph documents that the system is providing a safe environment to garage occupants while minimizing energy costs. Current or historical data is available for remote viewing at any time by the facility engineering department over the campus network.

