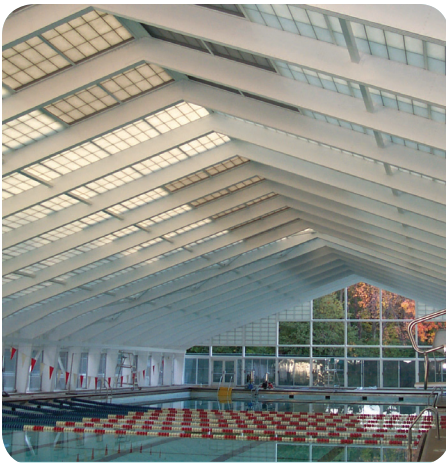




Hanscom Air Force Base Bedford, MA



PROJECT HIGHLIGHTS

Environmental Benefits

To be advised

Capital Costs

\$8,707,000

Annual Savings

\$1,220,367

Schedule Compliance

Completed on time

Budget Compliance

Completed within budget

PROJECT DESCRIPTION:

Energy Savings Performance Contracting

Challenge: Hanscom Air Force Base (HAFB) encompasses over 109 buildings totaling over 2.5 million square feet in the Boston suburbs. HAFB is responsible for providing research and development services to numerous air force organizations throughout the world. HAFB also houses one of the premier research facilities of the Massachusetts Institute of Technology (MIT).

PROJECT SCOPE

Solution: ConEdison *Solutions* was tasked with identifying and implementing energy saving measures throughout the entire HAFB campus. Energy audits were conducted at each facility and included detailed equipment inventories and power measurements. Detailed engineering and economic analyses were performed during the Detailed Energy Study phase, the results of which prompted HAFB to issue three consecutive Delivery Order Awards to ConEdison *Solutions* for firm fixed price contracts. ConEdison *Solutions* managed the turn-key installation of the measures including new building construction, mechanical and electrical system design, savings calculations, lifecycle cost analyses, metering and verification, hiring subcontractors, coordinating schedules with and training facility personnel, disposing of debris, and recycling materials. Additionally, ConEdison *Solutions* arranged project financing.

Contact:

Joan Croteau
Director of Engineering
Hanscom Air Force Base
Bedford, MA
Phone: 781-377-4350
Email: joan.croteau@hanscom.af.mil

ENERGY CONSERVATION MEASURES

Heating Ventilation Air Conditioning (HVAC)

- Installed an all new variable volume HVAC system with state-of-the-art systems and controls
- Redesigned the exhaust system
- Achieved 75% energy savings

Passive Solar Natatorium

- Installed an innovative heat-recovery dehumidification/heating system
- Reduced pool water heating and dehumidification costs by over 80% using a pool cover
- Open air design limits need for mechanical HVAC equipment

Steam System Upgrades

Installed high-efficiency, low-maintenance steam traps

Residential Upgrades

- Installed energy-efficient HVAC and lighting controls
- Insulated the roofs

Lighting System Upgrades

- Installed high-output T-8 systems with electronic ballasts
- Installed lighting controls
- Lighting electricity load/demand declined by over 40%

Energy Management System Upgrades

Added optimum start-stop, demand controlled ventilation, pump and air handling unit control, zone thermostats with override controls, occupancy based HVAC controls