A&J Consulting
Engineering Services, P.C.

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CLIENT

KEARNY BOARD OF EDUCATION

LINCOLN SCHOOL

LOCATION:

Kearny, NJ

Rooftop Units

Cooling Towers

CONSTRUCTION VALUE:
$20 Million

DESIGN START:
2005

DESIGN COMPLETE:
2007

CONSTRUCTION COMPLETE:
2009

SCOPE OF WORK

Design of MEP System for the 100,000 sq. ft Lincoln School.

PROJECT DESCRIPTION

The project involved renovation of the existing 81,000 sq. ft, two-story school building built in 1963 and the new 19,000 sq. ft, two story addition to the existing building to meet the requirements of the Aircraft Noise Abatement Program sponsored by the Port Authority & Federal Aviation Administration.

A&J designed the upgrades to the existing mechanical, electrical and plumbing systems and the MEP systems for the additions.

The MEP scope of the project included demolition of existing heating and ventilation system consisting of (2) 165 HP Hot Water Boilers, associated breeching, gas, oil and hot water piping, several unit ventilators and exhaust system. The new HVAC System included 2-pipe system to air-condition the building, two (2) gas fired absorbers each having a capacity of 215 Tons cooling & 2250 MBH heating, dual temperature & condenser water pumps, forced draft type cooling towers. On the air side, seven (7) new active desiccant type AHUs, a 40-Tons Rooftop AC unit for the Swimming Pool, and several dedicated fan coil units for each classroom were provided.

On the electrical side, a new 750 kVA Transformer with 277/480 Volts to support the new HVAC system and a 225 kVA Transformer with 120/208 Volts secondary to back feed the existing main Switchboard were provided. A new 1200 Amps 277/480V Main Distribution Switchboard was installed in the Basement MER.

The project also included a new 277/480Volt, 163 kVA Emergency Generator system to feed new Elevator, Fire Pump and HVAC system serving the Emergency Shelter Area.

A new addressable Fire Alarm Control Panel was provided to interface with the existing zones of annunciation plus pick up the added detectors and ADA compliant horn/strobes in the addition and renovated spaces.