

kent school - case study



Situated on 1300 acres in Northwest Connecticut, Kent School is a large, independent, coeducational boarding school. Alliance Energy Solutions implemented a lighting upgrade with the financial assistance of Connecticut Light and Power, and the State of Connecticut's Conservation and Load Management Fund. The installation was done during the school's February vacation and was completed in time for classes to resume. Care was taken to improve the quality of light as well as the quantity.

| project overview | |
|------------------------|-------------|
| annual kw savings: | 103.49 |
| annual kwh savings: | 404,732 |
| annual \$\$\$ savings: | \$40,473.20 |
| CL&P incentive: | \$46,058.00 |
| return on investment: | 41% |

"The pool area and tennis court lighting was first rate. The facility looks refreshed. All the lamps are the same color and the project eliminated ballasts that were buzzing or simply not working. Our maintenance crews will have more time for other jobs, too."

- Joe Wolinski, Director of Facilities

athletic facilities

In the two gymnasiums and a smaller exercise gym, 400 watt Metal Halide fixtures were replaced with 4 lamp T-5 High Lumen Fluorescent arrays reducing energy consumption by 50% and increasing light levels by 30-40%.

In the swimming pool area, 400 watt Metal Halide fixtures were also replaced with 4 lamp T-5 fixtures. Clear acrylic lenses were added to the T-5 fixtures to protect them from the ambient moisture.

The tennis court presented a different challenge. Forty-eight 1000 watt Metal Halide fixtures illuminated the courts indirectly, the light reflecting off a white ceiling. These fixtures were replaced with eighty T-5 4 lamp fixtures, also with indirect illumination. Energy savings were \$17,360.18 per annum with a payback of 1.4 years. Light levels increased by 35%.



riding stables

In the riding stables, one hundred eighty-two 2 light F96 T12 fixtures were retrofitted with two 4 foot T8 lamps, new ballasts, and reflectors. Light levels increased by 40% while energy consumption was reduced from 132 watts to 54 watts per fixture. Twenty-eight 100 watt incandescent A lamps were replaced with 20 watt compact fluorescent spirals.

administrative, dorms, dining

In the administrative areas, dorms, and dining halls 4 foot 2 lamp wrap fixtures received new electronic ballasts, T8 841 lamps and a thorough cleaning. 2x4 troffers were de-lamped from 4 lamps to 2 with new electronic ballasts, T8 lamps and optical reflectors. Energy usage went from 160 watts to 54 watts. Light levels improved by 15%. In the dorm areas, 1 lamp vandal resistant fixtures were retrofitted with new lamps and ballasts. One hundred-twelve 65-75w incandescent flood lamps were replaced with 15 watt compact fluorescent floods.

exits

Campus wide, 220 LED exits signs using 2 watts replaced existing 30 watt incandescent fixtures.

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