Project Profile

BROOKFIELD PROPERTIES

Short Pump Town Center (VA)

The Short Pump Town Center is a premier open-air premier shopping mall located in the West End area of Richmond, Virginia. The recently renovated center with more than 140 stores and restaurants offers a pedestrian-friendly "community within a community" design featuring lush landscaping, heated pavilions, beautiful fountains, intimate seating areas, a feature fireplace, and children's play areas. The property is managed by Brookfield Properties, a fully integrated, global real estate services company managing over 600 properties in North America.

Facility Type:
Parking lot

Technologies:
LED parking area fixtures

# of Fixtures:
300 new LED parking lot pole fixtures replacing 550 existing HID fixtures

Savings:
$44,000 in annual energy and maintenance savings

Utility Incentive:
More than $60,000 from Dominion Power

Short PUMP TOWN CENTER

Situation

The ownership wanted to improve the night-time aesthetics of the center by deploying an upgraded parking lot lighting solution that would lower energy costs, reduce maintenance costs, and improve light output to ensure customer safety.

Solution

The design and implementation phases of the project were conducted by Eco Engineering. The new system design entails LED fixtures which feature significantly improved photometric light distribution compared to the existing system. Eco Engineering managed the replacement of four existing HID fixtures with two new LED fixtures on each of the 137 parking lot poles at the center. In addition, the design entailed intelligently controlling each new fixture such that both on a pole operate during the evening operating hours of the center and only one operates from midnight until dawn. This controlled functionality maximizes energy savings and extends the life of the fixtures.

Results

- Demand Reduction
  Approximately 171 kW peak demand reduction projected.

- Annual Consumption Savings and Environmental Benefits
  Estimated at 459,684 kWh annually – the equivalent of removing 81 combustion engine passenger cars from the road annually.

- Reduced Costs
  The implementation of the new lighting system is expected to deliver approximately $3,137 in monthly energy costs savings and another $530 in monthly maintenance expense reductions. The total annual savings will exceed $44,000 per year.

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