

»Savings Results:

- 111,038 kWh savings per year
- \$15,545 annual electric savings*
- \$18,525 program incentives from Pepco

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Pepco C&I Energy
Savings Program
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866-353-5798

ELIZABETH CONDOMINIUM APARTMENTS PRESCRIPTIVE LIGHTING PROJECT

»Overview:

Constructed in 1974, The Elizabeth Condominiums complex in Chevy Chase, Maryland is an 18-story structure consisting of residential units, commercial offices, multi-level, enclosed parking garage and numerous common and facility support areas. Since this is a “common interest” property and each of the 353 residential apartments and 12 commercial occupants own their home or office, their monthly maintenance assessment is based on a percentage of the total cost to operate the complex. Therefore, any operation expense savings realized through energy efficiency projects reduces their individual expenses. The Condominium’s Association Board approved an upgrade of lighting fixtures to support energy efficiency, as well as create a more comfortable and safer living condition for the occupants and reduce maintenance costs. The cash incentives offered through the Pepco C&I Energy Savings Program were an important financial factor in the decision to proceed with the lighting project.

»Project:

Lighting upgrade projects can produce immediate savings, create a safer, more comfortable and esthetically pleasing property, while not being intrusive to the tenants. All of these benefits add up to a more valuable and competitive property in the market place. The choice to proceed with this type of project was easily made when the Board considered all of the benefits and services offered by Derick Associates, Inc.

Derick Associates, Inc., a Gaithersburg, Maryland based contractor, was awarded the contract to complete a turn-key lighting upgrade project to the facility. Following an assessment of the existing fixtures, the contractor provided cost effective recommendations based on the customer’s requirements and allocated budget. As part of the contractor’s services, they prepared and submitted all the required documents to the Pepco C&I Energy Savings Program on the customer’s behalf.

The initial inspection of the facility identified a combination of mostly 1, 2 and 4-lamp, surface and recessed mounted fixtures throughout selected areas. The majority of those fixtures contained 34-watt, T12 F40 fluorescent lamps and magnetic ballasts. The customer’s desire was to increase general illumination and reduce maintenance costs while boosting energy savings; therefore, the newly installed equipment consisted of long life, high performance lamps and instant start electronic ballasts. This combination met all the customer’s expectations by providing increased illumination, longer life expectancy and superior Lumen Per

*Assumption of average cost of \$.0.14 cents per kWh used to figure annual electrical savings.



The Elizabeth
Chevy Chase, MD

Watt (LPW) ratios which was not attainable with the existing equipment.

»Results:

The project was completed in three phases over a 6-month period. Phase One concentrated on the parking garage and elevator lobby areas; Phase Two consisted of the main building's common areas and facility support areas such as lobby, administrative office, stairwell, mechanical areas and storage areas; and Phase Three provided lighting improvements in miscellaneous areas. A total of 437 older, degraded fixtures were replaced with new fixtures, while 478 existing fixtures were retrofitted with new lamps and ballasts. All fixtures now contain the selected energy efficient T8 lamps and ballasts resulting in a projected 12.5 kW reduction and potential

annual savings of over \$15,545 based on estimated fixture operating hours. Additional lamp replacement and maintenance cost savings are expected due to the decision to use the long-life T8 lamp versus the conventional series T8 lamp. The project received \$18,525 in cash incentives from the Pepco C&I Energy Savings Program upon the completion of the installation of the qualifying energy efficient equipment. The Condominium Association's Board is considering the installation of wall and remote mounted occupancy sensors in selected areas as well as variable frequency drives (VFDs) to promote additional energy efficiency improvements and generate additional energy savings for the facility.

»Lessons Learned:

A cooperative effort between the customer and the contractor is essential. With the customer's help the contractor can perform a comprehensive assessment of the existing lighting systems, understand the customer's requirements and produce a cost effective fixture upgrade solution with modern, energy efficient equipment that best fits the customer's needs and requirements.

»Added Value Benefits:

- » Maintenance personnel have a complete room by room fixture inventory once the project is complete.
- » Uniformity of lamps and ballasts reduces inventory stocking issues.
- » Longer-life lamp reduces maintenance expense.
- » Improved quality and quantity of illumination over conventional T12 systems.
- » Lower heat producing T8 lamps and ballasts reduces air conditioning costs.
- » Environmentally friendly technology reduces carbon footprint and complies with new energy code requirements.
- » Participation in Pepco C&I Energy Savings Program provided significant incentives to substantially reduce project payback.

"The Pepco C&I Energy Savings Program has proved beneficial for many multi-family properties, including The Elizabeth. Our customers know that saving energy is important, and the incentive payments encourage customers to convert to more efficient technologies now, rather than waiting."

Kelly Himes,
Business Development
Manager