



## Energy Efficient Garage Lighting

Bid # 463-11684

City of Fort Lauderdale

June 9, 2016



### Submitted by:

ConEdison Solutions  
3101 W. Dr. Martin Luther King Jr. Blvd.  
Suite 110  
Tampa, FL 33607

### Contact:

Craig Fisher  
Developer, Renewables  
786-459-3845

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## 2. Executive Summary

We are pleased to provide our proposal to Bid No. 463-11684 – Energy Efficient Garage Lighting. BGA, Inc., A ConEdison Solutions Company, hereinafter referred to as ConEdison Solutions, has been a Florida focused business since its inception in 1986, specializing in analyzing, engineering and implementing energy conservation projects. ConEdison Solutions and all assigned key professional staff possess all licenses and certifications required to provide the requested services in the State of Florida and the City of Fort Lauderdale. ConEdison Solutions understands the City of Fort Lauderdale seeking a qualified, experienced, and licensed firm(s) to provide energy efficient garage lighting at the Performing Arts Center Garage (PACA) and the City Park Garage (CPG). This project is to be completed without requiring any upfront capital expense to the City. The project is to be financed utilizing the savings in electrical expense from the replacement of existing fixtures for more energy efficient lighting.

ConEdison Solutions is currently under contract with the City of Fort Lauderdale providing similar services under a separate agreement which meets the buying criteria outlined here. ConEdison Solutions is currently contracted by the City of Fort Lauderdale to develop a Guaranteed Energy Performance Contract. This contract was awarded as a result of our response to solicitation RFQ 946-11316 (2014) and City Commission Memo #14-0694 (2015). We are currently working with the City's Sustainability Department, Facilities Department and Parks & Recreation Department in finalizing a Guaranteed Energy Performance Contract for a separate scope of services which include LED lighting retrofits at Holiday Park, Carter Park, Osswald Park and Mills Pond Park. Over the last 10 months, ConEdison Solutions has performed an investment grade energy audit and developed a budget neutral energy performance contract to be funded through savings without requiring any upfront capital outlay by the City. We believe this energy efficient garage lighting project may be funded similarly through savings. Our proposal attached herein offers to use a similar procurement mechanism to fund this project without any capital outlay. This proposal is a stand-alone offer, separate and apart from our current contract. However, should our response be deemed the best offer, we encourage the City to consider combining both projects.

ConEdison Solutions has been providing energy engineering and construction services for over 27 years to Florida's municipalities, school districts, hospitals, colleges, universities, and other clients since its inception in 1986. We have recently completed LED lighting retrofit projects at municipal parking garages and other types of parking facilities projects with the City of Hialeah, City of Punta Gorda, City of Fort Pierce and five(5) parking garages for the Naval Medical Facility – Bethesda, MD to name a few. In fact, over the last 4 years we have completed over \$15 million in LED retrofit projects.

We hope the City's selection committee finds our response to this bid to be favorable, similarly to our prior selection. We would be honored with the opportunity to continue the great relationship we have begun to build with the City as your energy efficiency partner. ConEdison Solutions is committed to performing the work within a mutually agreed upon time period and will ensure we maximize the value and benefits for the City.

Here is a quick rundown of the strengths and benefits we feel our team will bring to City of Fort Lauderdale:

### **We Are Neutral Regarding Vendor, Technology, Manufacturer, Equipment and Services**

- ✓ Our unique position as a non-manufacturer/maintenance provider allows us to perform our services in the role of **trusted advocate**, looking after the best interests of the City.
- ✓ **We owe no loyalty** to any technology, equipment manufacturer, energy type, utility company, or

internal or external maintenance service organizations – a long-term relationship and the County's best interest is our only objective.

#### **MEP Design-Build Model flexibly integrated to fit Performance Contracting**

- ✓ We **self-perform** energy engineering and mechanical, electrical and plumbing design using our in-house engineering staff – which translates into **lower overhead** and **more project for the dollar than other ESCOs**.
- ✓ **In-house** energy engineering and MEP design (we sign and seal our own drawings).
- ✓ **In-house** construction management and project commissioning.
- ✓ **In-house** long-term project monitoring and verification.

#### **Customer-Oriented Financial Model - No Cost or Risk, Shared Tax Benefits, Client Direct Purchase**

- ✓ Our **in-house services** mentioned above allow us to perform the Investment Grade Energy Audits **at our risk**. City of Fort Lauderdale will not be obligated into either paying for an expensive Energy Audit or entering into a Performance Contract
- ✓ We **share our net tax benefit** under the Energy Policy Act of 2005 with the City
- ✓ The City has the option to **direct purchase** equipment from manufacturers, **eliminating sales tax costs**.

#### **Local Contractors, Local Jobs, Diversity Inclusion, No Disruption of Existing Relationships**

- ✓ We **utilize local contractors** as desired and approved by Broward County to ensure the maximum number of jobs created by any developed projects stay within the local economy.
- ✓ We work with your team to **enhance** existing service relationships - we **encourage the use of existing staff and contractors** to perform long-term maintenance.
- ✓ We **utilize Small and Minority- Owned Businesses** - we have several City of Fort Lauderdale M/WBEs already in our pre-qualified subcontractor database. And have pre-selected our local M/WBE subcontractor for the installation of this project.

#### **Highly Qualified, Highly Experienced**

- ✓ We have provided more than **30 years of engineering services** to the Florida community.
- ✓ Our office's **primary business focus** has always been energy conservation services, and has been focused on such projects and programs since its inception in 1986, **longer than any other Florida ESCO**.

- ✓ We have an extensive history as a **prime performance contractor** with over **\$170 million** of installed energy performance contracts in **Florida**.
- ✓ We are the **most experienced energy-auditing firm** in Florida, having done more investment grade energy audits in the State of Florida than any other ESCO (over **2,000 Investment Grade Energy Audits** covering over **35,000,000 square feet** of building space.)
- ✓ We are recognized as **Florida's central chiller plants experts**, our **in-house engineering teams** have **designed and/or built** more such plants than any other ESCO in the state.
- ✓ Over the years, many other Florida ESCOs have procured our MEP design and energy engineering services to perform investment grade audits and design work for their performance contracts – **We are the ESCO's ESCO!**
- ✓ **Experience** – We have a deep bench of engineering, design, commissioning, energy project management and construction experience right here in Florida...not outsourced. (Licensed Professional Engineers, Licensed General and Mechanical Contractors, Certified Energy Managers, Certified Lighting Efficiency professionals, and LEED Accredited Professionals)

ConEdison Solutions is eager to bring our expertise and services to City of Fort Lauderdale. We look forward to and are excited about the opportunity to be your energy partner, delivering a comprehensive technically and financially viable energy audit, which ultimately results in projects that achieves your energy conservation and alternative energy goals.

Our primary point of contact for the management of this project will be:

Craig Fisher  
Program Manager  
ConEdison Solutions  
185 SW 7<sup>th</sup> Street  
4005  
Miami, FL 33130

### 3. Experience and Qualifications

BGA, Inc., A ConEdison *Solutions*' company (BGA), is an energy services company (ESCO), and has been a Florida focused business since its inception in 1986 specializing in analyzing, engineering and implementing energy conservation projects. We have experience providing more than 20 years of engineering services to the Florida community and more than a 12 year resume as a prime performance contractor with hundreds of millions of dollars' worth of installed energy performance contracting projects in Florida.

We are accredited by the National Association of Energy Services Companies at the Energy Service Provider (ESP) level, which is the most comprehensive and **highest accreditation that NAESCO provides**. As such, it includes all of the services offered by energy services companies, as well as energy supply options.

We are a local company with a national reach. Our corporate headquarters are in Valhalla, NY and we have regional offices in Burlington, MA; Cherry Hill, NJ; Falls Church, VA; **Tampa, FL**; Overland Park, KS; and Houston, TX. **Any work undertaken for City of Fort Lauderdale will be managed, staffed, and conducted out of the office in Tampa, Florida (BGA).**

ConEdison Solutions is a wholly-owned subsidiary and registered trademark of Consolidated Edison, Inc. (CEI). CEI is listed on the New York Stock Exchange under ticker symbol: ED. **CEI is one of the nation's longest operating and largest investor-owned energy companies, with approximately \$13 billion in annual revenues and \$33 billion in assets. CEI is the oldest operating utility in the United States.**

**CEI was ranked #1 as the "greenest" utility in the United States** (Newsweek – 2014). Our commitment to sustainability is shown in our own investments into renewables. CEI is **the 5<sup>th</sup> largest producer of solar and wind in the United states with over 1500 MW within our national portfolio.**

The U.S. Department of Energy (DOE) and Department of Defense (DOD) have both designated ConEdison *Solutions* as an approved provider of energy efficiency, renewable energy and water conservation services to federally owned buildings and facilities nationwide.



As the result of a nationwide selection process intended to identify qualified vendors, ConEdison *Solutions* became one of a handful of providers so designated, which underscores ConEdison *Solutions*' proven ability to help government entities achieve their energy savings goals. ConEdison *Solutions* has held this designation since 2003, so this re-designation marks a continuation and expansion of ConEdison *Solutions*' relationship with DOE and DOD.

In 2007, ConEdison *Solutions* purchased BGA, an energy services and engineering company based in Tampa, FL that has been providing energy conservation services to Florida's public agencies since its founding in 1986.



### CORPORATE HEADQUARTERS

**ConEdison *Solutions***  
100 Summit Lake Drive  
Suite 400  
Valhalla, NY 10595  
(914) 826-7000  
(914) 448-0057

Our Florida Office will have direct responsibility for this project.

### FLORIDA OFFICE

**BGA, A ConEdison *Solutions* Company**  
3101 West Dr. Martin Luther King, Jr. Blvd.  
Suite 110  
Tampa, FL 33607

**Program Manager: Craig Fisher**  
**185 SW 7<sup>th</sup> Street**  
**Suite 4005**  
**Miami, FL 33130**

305-773-6993  
[fisherc@conedsolutions.com](mailto:fisherc@conedsolutions.com)

ConEdison Solutions utilizes its in-house team of engineering, design, commissioning, energy project management and construction experience professionals right here in Florida. We will self-perform energy engineering as well as the electrical and controls design required for this garage lighting project using our in-house engineering staff. However we do acknowledge that despite our deep bench of in-house expertise, it is also necessary to stimulate the local industry wherever we do work. We have developed a very cost effective model of utilizing local professional services subcontractors to assist and install the scope of services. This also ensures we meet the M/WBE participation and local preference goals.

The contract management and engineering will be completed from our offices in Tampa, Florida. The client program management will be handled locally by Craig Fisher located in Miami, Florida. Project installation will be completed out of the offices of our long-term subcontractor partners, **Advanced Energy Solutions, Inc. (AES)** - MBE electrical subcontractor and a City of Fort Lauderdale, Local Business Preference - Class C Business: AES has been doing electrical subcontracting work with ConEdison Solutions across 13 different states for over 12 years. Over this time, AES has helped us meet our Small Business Subcontracting Plan Policy while providing excellent service. To date, we have procured approximately \$15 million in electrical subcontracting services with AES.



## 4. Approach to Scope of Work

ConEdison Solutions understands the City of Fort Lauderdale is seeking a qualified, experience and licensed firm to provide energy efficient LED lighting to replace existing HID lighting at the City Hall Garage (CHG) and at the Performing Arts Center Garage (PACA). ConEdison Solutions has designed and installed over \$15 million dollars of LED retrofit projects in the last 4 years with public sector clients. In fact, ConEdison has recently completed municipal parking garage Led retrofits at the City of Hialeah and the City of Punta Gorda, our installation partner for this project, Advanced Electrical Solutions, has also separately completed LED retrofits at the City of Coral Gables and also the Miami International Airport. Our experience team has the technical and operational expertise to deliver this project to the City of Fort Lauderdale.

Upon award, ConEdison Solutions will request engineering drawings and 24 months of utility bills for these parking garages. We will survey both facilities and do a floor by floor count of all fixtures including verification of electrical capacity at each site. We will also perform photometric analysis of the lighting within these facilities. Upon completion of this analysis, we will meet with the City to review our findings and validate that our proposal is complete. ConEdison Solutions estimates the construction of this project will take 6 weeks, with four weeks of on-site of implementation and commissioning. Our in-house team will provide all lighting design services.

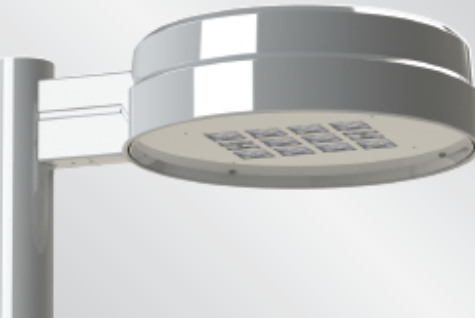
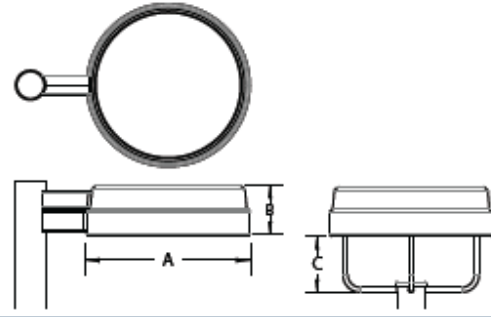

ConEdison Solutions proposes a budget neutral approach to this project financed through a performance contract. ConEdison Solutions is currently under contract with the City developing a similar project at its Parks. We would provide a turnkey design and installation and provide an energy guarantee to the City to ensure you achieve the calculated energy savings.



## City of Ft. Lauderdale - Parking Garages

| Building / Site | kWd Rate | kWh Rate  | Existing kW | Existing kWh     | Proposed kW | Proposed kWh   | kW Reduction | kWh Reduction  | Controls Sensors kWh Savings | Controls ONLY \$ Savings | Lighting Only \$ Savings | Total \$ Savings Controls + Lighting | Existing Average Bldg Running Hrs | Project Statistics |                |              |           |
|-----------------|----------|-----------|-------------|------------------|-------------|----------------|--------------|----------------|------------------------------|--------------------------|--------------------------|--------------------------------------|-----------------------------------|--------------------|----------------|--------------|-----------|
|                 |          |           |             |                  |             |                |              |                |                              |                          |                          |                                      |                                   | Exit Fixt Qty      | Existing Lamps | ECM Fixt Qty | ECM Lamps |
| PACA Garage     |          | \$0.07000 | 45.70       | 400,305.72       | 13.74       | 120,379.52     | 31.96        | 279,925.80     | 30,140                       | \$2,110                  | \$19,595                 | \$21,705                             | 8,760                             | 239                | 239            | 239          | 0         |
| CHG Garage      |          | \$0.07000 | 100.76      | 882,657.60       | 30.04       | 263,150.40     | 70.72        | 619,507.20     | 71,166                       | \$4,982                  | \$43,366                 | \$48,347                             | 8,760                             | 525                | 525            | 525          | 0         |
| <b>Totals</b>   |          |           | <b>146</b>  | <b>1,282,963</b> | <b>44</b>   | <b>383,530</b> | <b>103</b>   | <b>899,433</b> | <b>101,306</b>               | <b>\$7,091</b>           | <b>\$62,960</b>          | <b>\$70,052</b>                      | <b>8,760</b>                      | <b>764</b>         | <b>764</b>     | <b>764</b>   | <b>0</b>  |

The proposed project is calculated to save \$70,052 annually. *Note: that the control savings shown here will be obtained without the need of the controls system desired by the City.* The proposed Visionaire fixtures come equipped with integrated controls which provide the desired control energy savings. It does not however allow for remote access and monitoring and therefore we have included the additional Hubell wiSmart controls to provide the data logging and remote access control features required in the bid spec. these additional features provide for better operational efficiency but do not produce any additional savings. All proposed fixtures are DLC listed and come with a standard 5 year warranty with the option for an additional 5 years. See the cutsheets on the following pages

| <b>AREA</b>   | <b>PGR LED</b>   | Project Name:  | Catalog Number:  | Type                            |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|---|--|--|--|---------------------------------|--|---|-------------------------|---|--------|-----------|--------|---------|----------|--------|---------|--------------|-------------|---------------------------|------------------|---------------------------------|--|---|----------------|--|--------------|--------------|------------|------------------------------|------------|--|---------------|---|---------------|--------------|------------|--|------------|---|---------------|---|--------------|--|--|--|--|--|------------------|--|-------------|--|--|--|--|--------------------------------------|--------------|--------------------------------|----------------|--|--|--|--|--|-------------------------|---|--|--|--|--|--|--|----------------------|--|
|   |   | <b>Dimensional Drawings</b>  |  |                                 |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   |  |  |  |                                 |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   |  | Fixture  | A  | B                               | C                                      | Max. LEDs   | Lbs                     |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | PGR  | 18.5"  | 6"   | 8"                              | 48                                     | 16  |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | <p>The new PGR LED luminaire from Visionaire combines contemporary design with new LED technology, while maintaining a traditional fixture image. The LEDs Performance and Life are maximized by the unique integral aluminum heat sink. It is an ideal replacement for the high-maintenance fluorescent or HID fixtures of yesterday.</p> <p>The LED housing is formed aluminum with internal heat sink for maximum heat dissipation; with either 16, 32 or 48 LEDs. The formed aluminum driver compartment allows the driver to operate cooler for long life. Available with a Low Profile Ceiling Mount Bracket, a Speed Mount Bracket for surface conduit mounting, Pendant Mounting, Bolt-On Arm or Spider Mount.</p>   |  | <p>Six optical distribution patterns are available. Choose between 4000 or 5000 Kelvin temperature of the LED's.</p> <p>A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.</p> <p>The PGR LED series is an exceptional choice for paths and roadways, pedestrian walkways, shopping centers, etc...</p> |                                 |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Model</th> <th>Optics</th> <th>Source</th> <th>Milliamps</th> <th>Kelvin</th> <th>Voltage</th> <th>Mounting</th> <th>Finish</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td rowspan="7"><b>PGR-1</b></td> <td>Type I (T1)</td> <td># of LEDs<br/>16<br/>(16LC)</td> <td>mA<br/>350<br/>(3)</td> <td>4000K<br/>*Neutral White<br/>(4K)</td> <td>120-277<br/>*Universal voltage<br/>(UNV)</td> <td>Low Profile Mount<br/>Ceiling Mount<br/>*No Conduit Feed<br/>(LPM)</td> <td>Bronze<br/>(BZ)</td> <td>0-10v Dimming Driver<br/>No Controls<br/>(DIM)</td> </tr> <tr> <td>Type II (T2)</td> <td>32<br/>(32LC)</td> <td>530<br/>(5)</td> <td>5000K<br/>*Cool White<br/>(5K)</td> <td>480<br/>(5)</td> <td>Speed Mount Bracket™<br/>Ceiling Mount<br/>(SMB)</td> <td>Black<br/>(BK)</td> <td>Motion Sensor/Control<br/>Watt Stopper FSP-211<br/>22' Distance @ 8' CLG HT<br/>Must specify Dimming Driver.<br/>*120V-277V Only<br/>(WSC)</td> </tr> <tr> <td>Type III (T3)</td> <td>48<br/>(48LC)</td> <td>700<br/>(7)</td> <td></td> <td>347<br/>(8)</td> <td>Pendant Mount<br/>12" (PM12)<br/>24" (PM24)<br/>36" (PM36)</td> <td>White<br/>(WH)</td> <td>Motion Sensor<br/>20' Distance @ 8' CLG HT<br/>Must specify Dimming Driver.<br/>Can use with Wireless Control<br/>*120V-277V Only<br/>(MS)</td> </tr> <tr> <td>Type IV (T4)</td> <td></td> <td></td> <td></td> <td></td> <td>Spider Mount<br/>File 3 3/8" O.D.<br/>(SM)</td> <td>Graphite<br/>(GP)</td> <td></td> </tr> <tr> <td>Type V (T5)</td> <td></td> <td></td> <td></td> <td></td> <td>Bolt On Arm<br/>PGR Version<br/>(BOAR)</td> <td>Grey<br/>(GY)</td> <td>10kV Surge Protector<br/>(10KV)</td> </tr> <tr> <td>Type V-W (T5W)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Silver Metallic<br/>(SL)</td> <td>Emergency Battery Pack<br/>*120V-277V Only<br/>(EBPL)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Custom Color<br/>(CC)</td> <td></td> </tr> </tbody> </table> |  |  |                                 |  |   | Model                   | Optics  | Source | Milliamps | Kelvin | Voltage | Mounting | Finish | Options | <b>PGR-1</b> | Type I (T1) | # of LEDs<br>16<br>(16LC) | mA<br>350<br>(3) | 4000K<br>*Neutral White<br>(4K) | 120-277<br>*Universal voltage<br>(UNV) | Low Profile Mount<br>Ceiling Mount<br>*No Conduit Feed<br>(LPM) | Bronze<br>(BZ) | 0-10v Dimming Driver<br>No Controls<br>(DIM) | Type II (T2) | 32<br>(32LC) | 530<br>(5) | 5000K<br>*Cool White<br>(5K) | 480<br>(5) | Speed Mount Bracket™<br>Ceiling Mount<br>(SMB) | Black<br>(BK) | Motion Sensor/Control<br>Watt Stopper FSP-211<br>22' Distance @ 8' CLG HT<br>Must specify Dimming Driver.<br>*120V-277V Only<br>(WSC) | Type III (T3) | 48<br>(48LC) | 700<br>(7) |  | 347<br>(8) | Pendant Mount<br>12" (PM12)<br>24" (PM24)<br>36" (PM36) | White<br>(WH) | Motion Sensor<br>20' Distance @ 8' CLG HT<br>Must specify Dimming Driver.<br>Can use with Wireless Control<br>*120V-277V Only<br>(MS) | Type IV (T4) |  |  |  |  | Spider Mount<br>File 3 3/8" O.D.<br>(SM) | Graphite<br>(GP) |  | Type V (T5) |  |  |  |  | Bolt On Arm<br>PGR Version<br>(BOAR) | Grey<br>(GY) | 10kV Surge Protector<br>(10KV) | Type V-W (T5W) |  |  |  |  |  | Silver Metallic<br>(SL) | Emergency Battery Pack<br>*120V-277V Only<br>(EBPL) |  |  |  |  |  |  | Custom Color<br>(CC) |  |
| Model   | Optics   | Source   | Milliamps  | Kelvin                          | Voltage                                | Mounting  | Finish                  | Options   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
| <b>PGR-1</b>  | Type I (T1)  | # of LEDs<br>16<br>(16LC)  | mA<br>350<br>(3)   | 4000K<br>*Neutral White<br>(4K) | 120-277<br>*Universal voltage<br>(UNV) | Low Profile Mount<br>Ceiling Mount<br>*No Conduit Feed<br>(LPM) | Bronze<br>(BZ)          | 0-10v Dimming Driver<br>No Controls<br>(DIM)  |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | Type II (T2)   | 32<br>(32LC)   | 530<br>(5)   | 5000K<br>*Cool White<br>(5K)    | 480<br>(5)                             | Speed Mount Bracket™<br>Ceiling Mount<br>(SMB)                  | Black<br>(BK)           | Motion Sensor/Control<br>Watt Stopper FSP-211<br>22' Distance @ 8' CLG HT<br>Must specify Dimming Driver.<br>*120V-277V Only<br>(WSC) |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | Type III (T3)  | 48<br>(48LC)   | 700<br>(7)   |                                 | 347<br>(8)                             | Pendant Mount<br>12" (PM12)<br>24" (PM24)<br>36" (PM36)         | White<br>(WH)           | Motion Sensor<br>20' Distance @ 8' CLG HT<br>Must specify Dimming Driver.<br>Can use with Wireless Control<br>*120V-277V Only<br>(MS) |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | Type IV (T4)   |  |  |                                 |  | Spider Mount<br>File 3 3/8" O.D.<br>(SM)                        | Graphite<br>(GP)        |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | Type V (T5)  |  |  |                                 |  | Bolt On Arm<br>PGR Version<br>(BOAR)                            | Grey<br>(GY)            | 10kV Surge Protector<br>(10KV)  |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   | Type V-W (T5W)   |  |  |                                 |  |   | Silver Metallic<br>(SL) | Emergency Battery Pack<br>*120V-277V Only<br>(EBPL)   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|   |  |  |  |                                 |  |   | Custom Color<br>(CC)    |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
| <p><small>For more detailed information on mounting, wiring or installation instructions, please consult factory. If poles are not ordered with fixtures, please specify mounting requirements. This document contains proprietary information of Visionaire Lighting LLC. Any use of this information requires the written approval of Visionaire Lighting LLC. In keeping with our TQM policy of continuous improvement, Visionaire reserves the right to change any specifications contained herein without justification.</small></p> |  |  |  |                                 |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |
|    |  |  |  |                                 |  |   |                         |   |        |           |        |         |          |        |         |              |             |                           |                  |                                 |  |   |                |  |              |              |            |                              |            |  |               |   |               |              |            |  |            |   |               |   |              |  |  |  |  |  |                  |  |             |  |  |  |  |                                      |              |                                |                |  |  |  |  |  |                         |   |  |  |  |  |  |  |                      |  |

**PGR LED**

**Housing**

Heavy duty spun aluminum housing with internal heat sink for maximum heat dissipation. Silicone gasket is used for weather tight operation.

**Mounting**

A Pre-Attached Aluminum, Bolt-on Arm (BOA), with bottom access, is supplied along with an in-pole nut plate; for fast and easy attachment to the pole.

A Low Profile, hinged, ceiling mount bracket, can be secured directly to a recessed junction box, or to the ceiling.

A Speed Mount bracket with 3/4" knockouts is available for surface conduit mounting.

1/2" stem and canopy supplied for pendant mount applications.

**Thermal Management**

The PGR series provides excellent thermal management by mounting the LEDs to the substantial heat sink within the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.

**Optical System**

The highest lumen output LEDs are utilized in the PGR series. IES distribution Types I, II, III, IV, V and V-W are available. The optical system qualifies as IES full cutoff; to restrict light trespass, glare and light pollution.

CRI values are 70 for 4000K and 75 for 5000K.

**Quail-Guard Finish**

The finish is a Quail-Guard textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-6 millimeter thickness. Finish is oven-baked at 400° F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.

Finish is guaranteed for five (5) years.

**Electrical Assembly**

The PGR LED series is supplied with a choice of 850, 680 or 700mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.

**Warranty**

Five (5) year Limited Warranty on entire system, including full warranty information, please visit [visionairelighting.com](http://visionairelighting.com).



**Options**

0-10 Volt Dimming Driver

Watt Stopper FSP-211

Motion Sensor

10 kV surge protector

Emergency Battery Pack

**Listings**

• Powder Coated Tough

**Spider Mount Detail**



PGR 5000 K Lumen Data

| # LEDs | mA  | Type 1 | Type 2 | Type 3 | Type 4 | Type 5 | Type 5 W | Watts |
|--------|-----|--------|--------|--------|--------|--------|----------|-------|
| 16     | 350 | 2,278  | 2,331  | 2,401  | 2,193  | 2,514  | 2,381    | 18    |
|        | 530 | 3,273  | 3,207  | 3,304  | 3,018  | 3,459  | 3,249    | 26    |
|        | 700 | 4,299  | 4,213  | 4,341  | 3,984  | 4,544  | 4,289    | 37    |
| 32     | 350 | 4,786  | 4,891  | 4,833  | 4,413  | 5,059  | 4,752    | 35    |
|        | 530 | 6,831  | 6,499  | 6,696  | 6,115  | 7,010  | 6,584    | 52    |
|        | 700 | 8,318  | 8,151  | 8,398  | 7,670  | 8,792  | 8,259    | 71    |
| 48     | 350 | 7,188  | 7,044  | 7,258  | 6,628  | 7,598  | 7,137    | 56    |
|        | 530 | 9,994  | 9,794  | 10,091 | 9,216  | 10,565 | 9,923    | 80    |
|        | 700 | 11,242 | 11,017 | 11,352 | 10,367 | 11,884 | 11,163   | 102   |

Visit [www.VisionaireLighting.com](http://www.VisionaireLighting.com) for up-to-the-minute chart information, including types not listed here.

\* For 4000K multiply values by 0.95

10645 Rancho Way Rancho Dominguez, CA 90220  
Tel: (310) 512-6480 Fax: (310) 512-6486  
[www.visionairelighting.com](http://www.visionairelighting.com)

AREA

|                 |               |
|-----------------|---------------|
| PROJECT NAME:   |               |
| CATALOG NUMBER: | FIXTURE TYPE: |
| VOLTS/WATTS:    | LAMPS/BOARD:  |



## CAVERN CV - 30W LED

### ULTRASONIC STAIRWELL

#### FEATURES

- 4 FT LED Stairwell Fixture
- Ultrasonic Sensor Provides For Maximum Sensing Range
- Fully Control Light Levels For Both Occupied and Unoccupied Areas with High/Low User Selectable Bi-Level Dimming (USBD/HL) Option to Help Maintain Life Safety Codes
- Frosted Impact Resistant Acrylic Lens (Std.)
- 0-10W Dimming
- 5 Year Warranty

#### Cavern Housing

- .060" Aluminum Body
- .200" 6061 Machined Aluminum End Plates
- .500" Threaded End Plug
- Baked on Enamel Powder Coat Finish

#### Cavern Lite Housing

- .040 Aluminum Housing
- Baked on Pre-Paint Enamel



Cavern  
Shown with  
USBD Option



Cavern Lite Shown with  
USBD Option

#### LED SYSTEM

|                                    |           |
|------------------------------------|-----------|
| Calculated L70 (TM-21)             | > 100K    |
| Delivered Lumens                   | 3,696 lm  |
| Total Input Watts                  | 30 W      |
| Luminaire Efficacy Rating (LER)    | 125 lm/W  |
| Correlated Color Temperature (CCT) | 5000 K    |
| Color Rendering Index (CRI)        | > 80      |
| Max Ambient Temp                   | 130° F    |
| Universal Driver                   | 120-277 V |

LED System data above based on CVL4-30WLED-UNIV-50-USBD  
LED Lumen Maintenance Estimates based on TM-21 projections for the light source at 25°C ambient

#### DISTINGUISHING OPTIONS

- User Selectable High/Low Bi-level Dimming with Occupancy Sensor (USBD/HL)



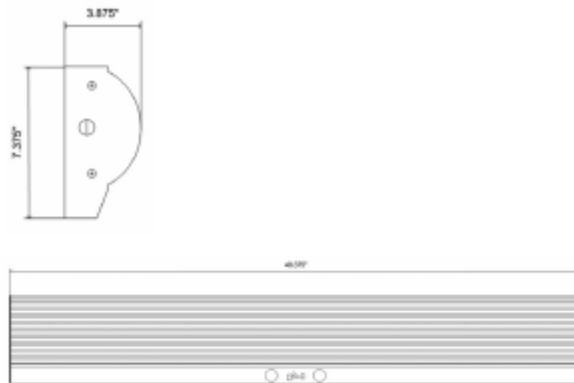
#### Ordering Guide

| eg: CV4  | 30WLED                          | UNIV   | 50                          | FRAL  |
|--|---------------------------------|--|-----------------------------|---|
| Series   | LED                             | Driver                                       | Color                       | Options   |
| <input type="checkbox"/> CV4 Cavern 4 FT       | <input type="checkbox"/> 30WLED | <input type="checkbox"/> UNIV 120-277 Driver | <input type="checkbox"/> 30 | <input checked="" type="checkbox"/> FRAL Frosted Acrylic Lens                                 |
| <input type="checkbox"/> CVL4 Cavern Lite 4 FT |                                 |  | <input type="checkbox"/> 35 | <input type="checkbox"/> WHP White Paint (Std)  |
|  |                                 |  | <input type="checkbox"/> 40 | <input type="checkbox"/> BRP Bronze Paint   |
|  |                                 |  | <input type="checkbox"/> 50 | <input type="checkbox"/> CPX Custom Paint (X = Spec Color)                                    |
|  |                                 |  |                             | <input type="checkbox"/> CORDx Cord (X = ft)  |
|  |                                 |  |                             | <input type="checkbox"/> PLUGx Plug (X = Type, eg. L71SP)                                     |
|  |                                 |  |                             | <input type="checkbox"/> SD480 480V Step Down Transformer                                     |
|  |                                 |  |                             | <input type="checkbox"/> FVILBCP05 5W LED Factory Installed Battery Backup                    |
|  |                                 |  |                             | <input type="checkbox"/> FVILBCP07 7W LED Factory Installed Battery Backup                    |
|  |                                 |  |                             | <input type="checkbox"/> FVILBCP10 10W LED Factory Installed Battery Backup                   |
|  |                                 |  |                             | <input type="checkbox"/> FVILBCP12 12W LED Factory Installed Battery Backup                   |
|  |                                 |  |                             | <input type="checkbox"/> TPS Tamper Proof Screws (Cavern Only)                                |
|  |                                 |  |                             | <input type="checkbox"/> FIOS On/Off Occupancy Sensor Installed                               |
|  |                                 |  |                             | <input type="checkbox"/> BDxx* Preset Bi-level Dim Sensor (xx = % eg. 20,30)                  |
|  |                                 |  |                             | <input type="checkbox"/> USDC User Selectable Dimming Control                                 |
|  |                                 |  |                             | <input type="checkbox"/> USBD* User Select Bi-level Dim w/ Occ. Sensor                        |
|  |                                 |  |                             | <input type="checkbox"/> USBD/HL* User Select High/Low Bi-level Dimming with Occupancy Sensor |
|  |                                 |  |                             | <input type="checkbox"/> FHSBB500 500 Lumen Battery Backup                                    |

\*DLC listed when used with one of these control options

## CAVERN CV - 30W LED

### ULTRASONIC STAIRWELL



### OPTIONS

USER CONTROLLED DIMMING (USDC) GIVES YOU THE ABILITY TO ADJUST THE LIGHT LEVEL BY SIMPLY TURNING AN INTERNAL CONTROL

- Fully Control the Minimum Light Level for the Occupied & Unoccupied Modes
- Dimmable down to 10%.
- Internal dim control can be accessed without disassembling the fixture.

#### USER SELECT BI-LEVEL DIM SENSOR (BDxx)

- Factory Set BiLevel Dimming. Fixtures with this option come with a 0-10V sensor and driver and are set to dim down to the number indicated in "xx" portion of the part number, when in an unoccupied mode.

#### USER SELECT BI-LEVEL DIM SENSOR (USBD)

- User Selectable Bi-Level Dimming.
- Fixtures with this option come with a 0-10V sensor and driver along with an external control to allow the end user to manually select how low the fixture will dim when in unoccupied mode.

#### USER SELECT BI-LEVEL DIM SENSOR (USBD/HL)

- User Selectable bi-level dimming for both the high side and low side.
- Allows user to control how far the fixture dims down when sensor is in unoccupied mode.

(Instructions can be down loaded from the Cavern web page)

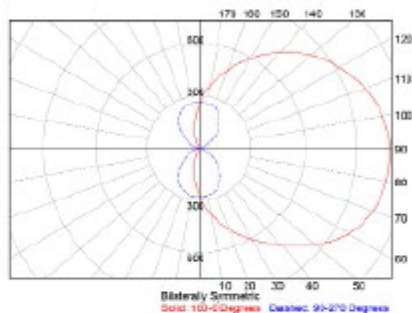
## CVL4-30WLED-UNIV-50-FRAL-USBD

LUMINAIRE OUTPUT = 3612 LMS  
120.0V/0.2487A/29.76W PF=0.996

### SUMMARY DATA

|                                |                 |
|--------------------------------|-----------------|
| HEMISPHERES TESTED:            | BOTH            |
| EFFICIENCY (Total):            | 100.0%          |
| EFFICIENCY (Downlight):        | 50.6%           |
| EFFICIENCY (Uplight):          | 49.4%           |
| CIE CLASSIFICATION:            | GENERAL DIFFUSE |
| SPACING CRITERION: (90-Deg):   | 1.26            |
| LUMENS/LAMP:                   | 3612.167        |
| NO. OF LAMPS:                  | 1               |
| LUMINOUS OPENING: RECTANGULAR: |                 |
| Width:                         | 4.00 (Feet)     |
| Length:                        | 0.13            |
| Height:                        | 0.46            |
| INPUT WATTS:                   | 29.76           |

### PLANE AND CONE DIAGRAM



Photometric values based upon tests performed in compliance with LM-79. IES files can be downloaded at [www.ilp-inc.com](http://www.ilp-inc.com)

Industrial Lighting Products

**lighting facts®**

A Program of the U.S. DOE

|                            |       |
|----------------------------|-------|
| Light Output (Lumens)      | 3696  |
| Watts                      | 29.67 |
| Lumens per Watt (Efficacy) | 124.6 |

---

|                             |    |
|-----------------------------|----|
| Color Accuracy              | 84 |
| Color Rendering Index (CRI) |    |

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Light Color

Correlated Color Temperature (CCT)

5201 (Daylight)

2700K 3000K 4500K 5500K

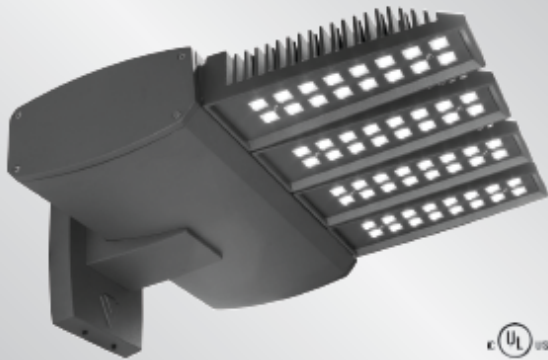
All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: BIAWV (6/25/2015)  
Model Number: CVL4-30WLED-UNIV-50-FRAL-USBD  
Type: Luminaire - Other




## BOW SX LED



UL LISTED

Project Name:
Catalog Number:
Type:

### Dimensional Drawings



| Fixture | A            | B  | C      | Max. Watts | Lbe |
|---------|--------------|----|--------|------------|-----|
| BSX-2   | 20" or 28.5" | 5" | 8.75"  | 111        | 15  |
| BSX-3   | 20" or 28.5" | 5" | 12.75" | 166        | 19  |
| BSX-4   | 20" or 28.5" | 5" | 16.75" | 222        | 24  |

The new BOW SX LED Series continues the unique contemporary design inspired by the sleek styling of the BOW family. Separating the extruded aluminum driver housing and the individual die-cast aluminum linear LED engines: optimize the life of the LEDs and the Driver(s); and maximizes the lumen output of the fixture.

Each of the individual LED light engines come with 16 LEDs; for a max total of 64 LEDs. Nine optical distribution patterns are available.


Available in 4000 or 5000 Kelvin temperature.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The BOW SX LED series is an exceptional choice for shopping centers, schools, office buildings, and general area lighting.

| Model | Optics                 | Source                    | Current       | Kelvin                          | Voltage                                | Mounting  | Finish                  | Options   |
|-------|------------------------|---------------------------|---------------|---------------------------------|--|---|-------------------------|---|
| BSX-2 | Type I (T1)            | # Of LEDs<br>32<br>(32LC) | 350<br>(3)    | 4000K<br>*Neutral white<br>(4K) | 120-277<br>*Universal Voltage<br>(UNV) | Knuckle Mount<br>*Slips over 2 3/8" Temon with adjustable increments of 10"<br>(KM) | Bronze<br>(BZ)          | Button Type Photocell<br>*Specify voltage<br>(PC120) (PC208)<br>(PC240) (PC277)   |
| BSX-3 | Type II (T2)           | 48<br>(48LC)              | 530<br>(5)    | 5000K<br>*Cool white<br>(5K)    | 480<br>(5)                             | Bolt-On Arm 6"<br>(BOA6)  | Black<br>(BK)           | Photocell & Receptacle<br>*Specify voltage<br>(PCR120) (PCR208)<br>(PCR240) (PCR277)  |
| BSX-4 | Type III (T3)          | 64<br>(64LC)              | 700<br>(7)    |                                 | 347<br>(8)                             | Wall Mount<br>(WM)  | Smooth Black<br>(SBK)   | Photo Receptacle<br>(PER)<br>*With shoring cap  |
|       | Type IV (T4)           |                           | 1000*<br>(10) |                                 |  | Adjustable Wall Mount<br>(UWM)  | White<br>(WH)           | Round Pole Plate Adaptor<br>For 4" Pole (RPP4)<br>For 5" Pole (RPP5)  |
|       | Type IVA (T4A)         |                           |               |                                 |  |   | Smooth White<br>(SWH)   | Motion Sensor<br>*White with 800-200<br>(WSC-8)<br>*Mounting Height<br>(WSC-20)<br>*9-12 Mounting Height<br>(WSC-40)<br>*21-40 Mounting Height<br>*For BOA Mounting Option Only |
|       | Type V (T5)            |                           |               |                                 |  |   | Graphite<br>(GP)        | This option will require (1) PSR 100 remote for programming   |
|       | Type V-W (T5W)         |                           |               |                                 |  |   | Grey<br>(GY)            | Pole Mounted Motion Sensor<br>(SBOR OEX)<br>(SBOR ODP)<br>*not photo cell   |
|       | Type Flood Narrow (FN) |                           |               |                                 |  |   | Silver Metallic<br>(SL) | Universal Pole Mount Adaptor<br>(UPMA)  |
|       | Type Flood Medium (FM) |                           |               |                                 |  |   | Custom Color<br>(CC)    |   |

\*Test Data Pending, 1 Amp is not DLC listed



NOTE: UNIT IS ADJUSTABLE FROM HORIZONTAL TO 90° UPWARD MAX. WITH THE KNUCKLE MOUNT.

For more detailed information on mounting, wiring or installation instructions, please consult factory. If poles are not ordered with fixtures, please specify mounting requirements. This document contains proprietary information of Visionaire Lighting, LLC. Any use of this information requires the written approval of Visionaire Lighting, LLC. In keeping with our TQM policy of continuous improvement, Visionaire reserves the right to change any specifications contained herein without prior notice.

**VISIONAIRE LIGHTING**  
Performance in A Whole New Light™

## BOW SX LED

### Housing

- The LED light engines are constructed of heavy-duty, die-cast aluminum, with external heat radiating fins.

### Driver Compartment

- The separate driver housing is constructed of extruded aluminum, with cast aluminum end covers and stainless steel fasteners, for easy access to the LED driver(s); allowing for cooler operation and longer driver life. One-piece gasketing is utilized throughout the fixture for weather tight operation.

### Thermal Management

- The BOW SX Series provides excellent overall thermal management by maximizing the fixture's heat sink capabilities. This enables the BOW SX Series to withstand higher ambient temperatures and drive currents without degrading LED life.

- The L70 test determines the point in an LED's life when it reaches 70 percent of its initial output. The BOW SX Series LEDs have been determined to last a minimum of 100,000 hours in 25°C environments when driven at 350 mA.

### Optical System

- The highest lumen output, LEDs are utilized in the BOW SX Series. IES distribution Types I, II, III, IV, IVA, V, V-W, FN & FM are available. LED light engines come in multiples of 16 LEDs.

- CRI values are 70.

### Quali-Guard® Finish

- The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400 °F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.

Finish is guaranteed for five (5) years.

### Mounting

- An adjustable knuckle slip fits over a 2 3/8" Tenon, and allows for up to 90° degrees of vertical adjustment in 10° degree increments from horizontal, as well as full side to side adjustment with the knuckle mount.

- A round extruded 6" aluminum, Bolt-On Arm (BOA) with an in-pole nut plate. A Round Pole Plate Adaptor (RPP) is required for mounting to round poles.

- A cast wall mount plate is available for wall mount applications.

### Electrical Assembly

- The BOW SX Series is supplied with a choice of 350, 530, 700, or 1000 mA high-performance LED drivers, that accept 120v thru 480v, 50 Hz to 60 Hz, Input. Power factor of 95%. Rated for -40 °C operations.

- 10 kV surge protector supplied as standard.

- 0-10v Dimming Driver supplied as standard

### Warranty

- Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit [VisionaireLighting.com](http://VisionaireLighting.com).

### Options

- Button Type Photocell
- Photocell & Receptacle
- Photo Receptacle
- Round Pole Plate Adaptor
- Motion Sensor
- Pole Mounted Motion Sensor
- Universal Pole Mount Adaptor

### Listings

BOW SX Series is UL Listed, suitable for wet locations.

IP65

Powder Coated Tough™.

DLC Listed



DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. <http://www.designlights.org/>

### Bolt-On Arm Detail



BSX BOA Mount Shown

| EPA DATA | BSX-2 | BSX-3 | BSX-4 |
|----------|-------|-------|-------|
|          | .5    | .7    | .9    |

BOW SX 5K Lumen Data Lumen Data Chart Updated 08.14.15

| # LEDs | mA   | Type 1 | Type 2 | Type 3 | Type 4 | Type 4A | Type 5 | Type 5W | Type FN | Type FM | Watts |
|--------|------|--------|--------|--------|--------|---------|--------|---------|---------|---------|-------|
| 32     | 350  | 4202   | 3849   | 3856   | 3870   | 4370    | 3906   | 3696    | 4445    | 4554    | 35    |
|        | 530  | 6222   | 5700   | 5710   | 5730   | 6471    | 5784   | 5473    | 6582    | 6743    | 54    |
|        | 700  | 7537   | 6905   | 6917   | 6942   | 7839    | 7007   | 6630    | 7974    | 8189    | 72    |
|        | 1000 | 9873   | 9044   | 9061   | 9093   | 10268   | 9178   | 8684    | 10444   | 10700   | 111   |
| 48     | 350  | 6256   | 5731   | 5741   | 5762   | 6507    | 5815   | 5503    | 6618    | 6780    | 53    |
|        | 530  | 8929   | 8180   | 8194   | 8224   | 9287    | 8300   | 7854    | 9446    | 9677    | 81    |
|        | 700  | 11270  | 10325  | 10343  | 10380  | 11722   | 10476  | 9913    | 11922   | 12214   | 110   |
|        | 1000 | 14763  | 13524  | 13548  | 13596  | 15354   | 13723  | 12985   | 15617   | 15999   | 166   |
| 64     | 350  | 8252   | 7560   | 7573   | 7600   | 8583    | 7671   | 7259    | 8730    | 8944    | 72    |
|        | 530  | 11681  | 10701  | 10720  | 10758  | 12149   | 10859  | 10275   | 12357   | 12660   | 106   |
|        | 700  | 14842  | 13597  | 13621  | 13669  | 15437   | 13797  | 13055   | 15701   | 16085   | 140   |
|        | 1000 | 19443  | 17812  | 17844  | 17907  | 20222   | 18074  | 17102   | 20569   | 21072   | 222   |

Visit [www.VisionaireLighting.com](http://www.VisionaireLighting.com) for up-to-the-minute chart information, including types not listed here.

\* For 4000K multiply values by 0.95

10645 Rancho Way Rancho Dominguez, CA 90220  
Tel: (310) 512-6480 Fax: (310) 512-6498  
[www.visionairelighting.com](http://www.visionairelighting.com)

9





## **wiSCAPE™** Wireless Outdoor Lighting Controls

wiSCAPE™ Wireless Outdoor Lighting Control by Hubbell Control Solutions is adaptable to ALL lighting sources and ALL voltages in new and retrofit outdoor lighting environments.

### **wiSCAPE WIRELESS CONTROL IS SMART**

With SMART Monitoring & Metering, wiSCAPE Wireless Site Lighting Controls System performs every function municipal engineers and control electricians are looking for.

- Works With ANY Type of Light Source
- Dimming and Switching
- Motion and Photo Sensor Input
- Dry Contact Interface for Switches and Sensors
- Standard or Astronomical Time Clock Control
- User Interface from Computer, Tablets, or Smart Phones
- Software for Easy Control, Configuring, Monitoring and Metering
- Alarm Notifications with Longitude/Latitude Location of Fixtures

### **wiSCAPE CONTROL INSTALLATIONS ARE QUICK, NO WIRING REQUIRED**

ONE module can control ANY lighting source without running ANY wires, installing relay panels or being limited to specific systems, ballasts and drivers. Modules are available for 120-480V light sources, in either 50Hz or 60Hz.

wiSCAPE installations are non-invasive and non-disruptive making lengthy wiring processes and relay panels a thing of the past. This radical new system works with all your preferred lighting sources to save even more energy.

- |              |                |
|--------------|----------------|
| • LED        | • Incandescent |
| • Induction  | • Halogen      |
| • MH-HPS-LPS | • Plasma       |



**Innovative | Integrated | Simple**

## wiSCAPE™ SMART CONTROL



wiSCAPE controls allow you to scale a system without ever having to use a router, configure network components or use a central cabinet. Each wiSCAPE module is a complete logic processor on its own.

Use wiSCAPE sensors ANYWHERE; whether it is two modules in a small alleyway, or thousands of modules across municipal or commercial locations.

## wiSCAPE SMART OPERATIONS

wiSCAPE modules are supported by wiSCAPE View, a graphical system management software platform that can configure, control, monitor and meter your lighting systems. wiSCAPE View allows for zoom and pan mapping and satellite views, so you can observe real-time monitoring, receive instant alarm notifications from faulty lighting equipment, and increase a network's efficiency and maintenance operations. wiSCAPE View is compatible with industry standard protocols and is controllable from wireless devices such as a smart phones or tablets!



## WHY wiSCAPE CONTROLS?

When it comes to reducing energy consumption, one of the fastest value creations comes from lighting control! For consumers seeking to lower costs and lower their impact on the environment, wiSCAPE controls are an ideal solution for sensors, monitoring and metering.

Visit our website at [www.hubbell-automation.com](http://www.hubbell-automation.com) to learn more about wiSCAPE controls and how HCS can help you SAVE ENERGY and SAVE FAST.

## wiSCAPE PRODUCT PLATFORM

The wiSCAPE platform of relays, controls, sensors and interfaces, supported by wiSCAPE View Software, is an all-in-one range of SMART products designed to configure, control, monitor and meter ALL lighting sources and ALL voltages.



Fixture Modules   Controls & Sensors   Gateways   Software

### HUBBELL – A NAME YOU CAN TRUST

Founded in 1888 by Harvey Hubbell II, Hubbell Inc. has been a long-time contributor to new product design and manufacturing innovation. In 1896, Hubbell invented the world's first lighting control device, the pull chain switch. Over 120 years later, Hubbell Building Automation, headquartered in Austin, Texas continues this tradition of innovation with the development of a vast array of innovative energy saving lighting controls.



9601 Dessau Rd., Building One | Austin, Texas 78754  
T 512-450-1100 | F 512-450-1215  
[www.hubbell-controls.com](http://www.hubbell-controls.com)



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Trademarks are property of their respective owners.

## 179 D Tax Deduction

This LED retrofit project qualifies for the EAct 179D Tax Deduction. ConEdison Solutions will share this deduction with the City of Fort Lauderdale upon project completion. We will complete this deduction filing with our corporate taxes and split this credit with the City 50/50. Below are examples where we have done this in the past. Our preliminary calculations shows that this project would result in ConEdison Solutions being able to present the City with a 179D allocation of \$55,000. This is based on preliminary calculations and the facilities square footages.

**We have the ability to share our 179D net tax benefit under the Energy Policy Act of 2005 (EAct) with the City of Fort Lauderdale**

*To date we have shared \$4.3M in EAct dollars with our clients.*

*Miami-Dade County received \$1.135 million presented by Michael W. Gibson from ConEdison Solutions, resulting from the federal 179D allocation associated with recent improvements completed by ConEdison Solutions downtown chilled water system.*



## From February 16, 2016 PHSC Board of Trustees Meeting Agenda Document

DBOT  
2/16/16  
4.12

### ConEdison Solutions Performance Contracting EPAct Sharing

The Energy Policy Act of 2005 (EPAct) provision 179D provides tax deduction benefits for the primary designers of governmental energy conservation performance projects. The goal of the Act is to encourage more energy efficient designs in government buildings. The government entity receives the benefit of reduced operating costs as a result of a more energy efficient building, and the primary designer receives the benefit of a tax deduction. ConEdison Solutions qualifies for a tax deduction as the primary designer for the Performance Contracting (PC) project it completed with the College in 2014.

As a tax exempt entity, PHSC would not normally financially benefit from the tax deduction provision of the Energy Policy Act. However, as PHSC's performance contracting partner, ConEdison Solutions has agreed to share **its** net tax deduction benefit with the College. As a result, ConEdison Solutions is pleased to present this check to PHSC in the amount of \$107,554.

As part of the College's performance contact project, ConEdison Solutions guaranteed that its energy conservation design would yield an annual energy cost avoidance of at least \$294,185. After the first complete year of operation, a utility analysis was performed to determine the actual energy cost avoidance. When compared to the pre-project utility bills, the actual first year annual energy cost avoidance was \$372,594. This represents an additional annual energy cost avoidance of \$78,409, or a 26.7% improvement above and beyond the annual guaranteed amount.

The ConEdison Solutions' performance contact project included the following Energy Conservation Measures (ECMs) and improvements:

- ✓ Replacement of over 6,500 standard fluorescent fixtures with new LED fixtures
- ✓ Installation of over 1,100 occupancy sensors and controllers
- ✓ Replacement of exterior High Intensity Discharge (HID) lighting with new LED fixtures
- ✓ Replacement of four chillers; two each at the East and West Campuses
- ✓ Installation of variable speed primary pumps at the West Campus Chiller Plant
- ✓ Installation of new underground chilled water piping
- ✓ Installation of a new cooling tower and refurbishment of an existing cooling tower
- ✓ Replacement of eight air handling units (AHUs) at the West Campus
- ✓ Conversion of eleven multi-zone AHUs to variable air volume (VAV) at the West Campus
- ✓ Modifications to the College's building automation and control systems
- ✓ Reprogramming of the existing VAV boxes at the East, West and North Campuses
- ✓ Installation of twenty one variable frequency drives (VFDs) at the West Campus
- ✓ Installation of demand controlled ventilation (DCV) controls at the West Campus
- ✓ Replacement and downsizing of the main water meter at the East Campus
- ✓ Installation of vending machine controls college-wide
- ✓ Re-commissioning of the College's existing energy management and control systems

3101 W. Dr. Martin Luther King, Jr. Blvd., Suite 110 • Tampa, FL 33607 • Tel: (813) 375-3399 • Fax: (813) 375-3400 • [www.conedsolutions.com](http://www.conedsolutions.com)



**Presentation of check for \$107,554 by Mr. Jeffrey Stokes of  
ConEdison Solutions to Pasco Hernando State College at  
February 16, 2016, Board of Trustees meeting.**



**More Sharing with Clients of Tax Benefits:**

- Brevard County Government \$49,978 (to be delivered second quarter 2016)
- City of Fort Pierce \$24,718 (to be delivered second quarter 2016)

## 5. References

### ConEdison Solutions' Florida Office Projects Experience

All projects listed below in color and bolded included LED lighting retrofits at various municipal facilities.

|   |                      |
|---|----------------------|
| ✓ <b>Florida State College Jacksonville (Investment Grade Audit)</b>  | <b>10,000,000+</b>   |
| ✓ <b>School District of Osceola County (Investment Grade Audit)</b>   | <b>\$8,000,000+</b>  |
| ✓ <b>Federal VISN6 (Investment Grade Audit)</b>                       | <b>\$50,000,000+</b> |
| ✓ <b>School District of Indian River County (installing project)</b>  | <b>\$4,778,775</b>   |
| ✓ <b>Pembroke Pines Charter Schools (installing project)</b>          | <b>\$6,895,453</b>   |
| ✓ <b>DOD 99<sup>th</sup> Army Reserve (installing project)</b>        | <b>\$56,895,207</b>  |
| ✓ <b>Pasco-Hernando Community College (recently completed)</b>        | <b>\$6,090,203</b>   |
| ✓ <b>City of New Port Richey D/B (recently completed)</b>             | <b>\$277,123</b>     |
| ✓ <b>Brevard County Government (recently completed)</b>               | <b>\$15,675,571</b>  |
| ✓ <b>Martin County Government WWTPs (recently completed)</b>          | <b>\$14,013,579</b>  |
| ✓ <b>City of Fort Pierce (recently completed)</b>                     | <b>\$6,039,229</b>   |
| ✓ <b>City of Miami Springs (recently completed)</b>                   | <b>\$1,631,121</b>   |
| ✓ <b>Lake County School District (recently completed)</b>             | <b>\$6,328,851</b>   |
| ✓ <b>City of Punta Gorda (recently completed)</b>                     | <b>\$714,184</b>     |
| ✓ <b>City of Hialeah (recently completed)</b>                         | <b>\$798,571</b>     |
| ✓ <b>Miami-Dade County Government (Chiller Plant Interconnection)</b> | <b>\$20,314,700</b>  |
| ✓ <b>Naval Air Station Jacksonville</b>                               | <b>\$12,200,000</b>  |
| ✓ <b>USPS Federal Shared Savings Performance Contracting</b>          | <b>\$93,264,582</b>  |
| ✓ <b>U. S. General Services Administration</b>                        | <b>\$1,500,000</b>   |
| ✓ <b>Department of Corrections</b>                                    | <b>\$11,738,930</b>  |
| ✓ <b>Hillsborough Community College</b>                               | <b>\$3,719,277</b>   |
| ✓ <b>Manatee Community College</b>                                    | <b>\$1,939,053</b>   |
| ✓ <b>Central Florida Community College</b>                            | <b>\$2,526,077</b>   |
| ✓ <b>Escambia County Schools</b>                                      | <b>\$12,000,000</b>  |
| ✓ <b>Charlotte County Public Schools</b>                              | <b>\$6,000,000</b>   |
| ✓ <b>Hillsborough County Public Schools</b>                           | <b>\$2,005,263</b>   |
| ✓ <b>Broward County Public Schools</b>                                | <b>\$1,883,915</b>   |
| ✓ <b>Franklin County Public Schools</b>                               | <b>\$1,579,572</b>   |
| ✓ <b>St. Lucie County Government</b>                                  | <b>\$4,141,760</b>   |

## References

### **Lake County Schools**

Pete Myles  
District Energy Manager  
Phone: 352-253-6833  
[mylesp@lake.k12.fl.us](mailto:mylesp@lake.k12.fl.us)

### **Pasco-Hernando Community College**

Keith Braun, CFM  
Facilities Manager  
Phone: 727-816-3336  
[braunk@phcc.edu](mailto:braunk@phcc.edu)

### **City of Punta Gorda**

Rick Keeney  
Director of Public Works  
Phone: 941-575-5050  
[rkeeney@ci.punta-gorda.fl.us](mailto:rkeeney@ci.punta-gorda.fl.us)

*See following case studies for project details.*





## Case Study

### Lake County School District Tavares, FL



#### PROJECT HIGHLIGHTS

##### Environmental Benefits

19.23 tons of harmful greenhouse gas (GHG) emissions reduced annually\*

##### Equivalent to:

- Preserving 30.9 acres of forest from deforestation\* or
- Conserving 8,823 barrels of oil\*

##### Utility Rebates

\$18,941

##### Capital Costs

\$6,329,000

##### Guaranteed Annual Savings

Energy: \$715,783

Maintenance: \$103,203

##### \* Sources:

- Leonardo Academy's Cleaner & Greener<sup>SM</sup> Emissions Reduction Calculator  
<http://www.cleanerandgreener.org/resources/pollutioncalculator.html>
- U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator  
<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

#### PROJECT DESCRIPTION:

##### Energy Savings Performance Contract

**Challenge:** A goal of the Lake County School District was to reduce its energy consumption and its impact on the environment while improving the learning and working environment for 18,000+ students, as well as its teachers. Having an annual electric energy budget of almost \$8,500,000 Lake County's portfolio of 40 schools, included 21 elementary schools, 10 middle, and nine high schools totaling over 5,225,000 square feet.

#### PROJECT SCOPE:

**Solution:** The district's board of education chose an Energy Saving Performance Contract (ESPC) to decrease energy use and its carbon footprint. Starting in October 2010, ConEdison Solutions conducted comprehensive energy audits which focused on sources of energy consumption and preliminary savings calculations. After the initial energy inspections, ConEdison Solutions conducted a comprehensive engineering and economic analysis to determine life-cycle costs, guaranteed savings calculations, environmental benefits, and metering and verification of equipment operations.

ConEdison Solutions helped the school district decrease its energy consumption and saved taxpayer dollars by implementing a wide variety of energy saving projects. From state-of-the-art lighting upgrades to heating, ventilation, air conditioning and building controls improvements, the ConEdison Solutions retrofits are projected to result in energy, operating and maintenance savings of over \$818,000 annually, all guaranteed through an ESPC. Based on the ESPC results, the Lake County School District was able to achieve its goals.

**April 2011:** Engineering and design completed

**November 2012:** Construction completed

#### ENERGY CONSERVATION MEASURES

##### Lighting upgrades & lighting controls

- Hallways and stairwells
- Classrooms
- Gymnasiums
- Auditoriums
- Exterior walkways

##### Energy Management System with Direct Digital Controls

##### Heating, ventilating and air conditioning upgrades

##### Vending machine controls

##### Indoor air quality improvements

##### District-wide IT network computer controls and power management

"ConEdison Solutions has worked with district leadership to find solutions to problems that will benefit students and the community that we simply could not have been able to afford without their expertise. Plus, the people at ConEdison Solutions really understand the challenges of K-12 public education unlike any other firm. We trust the solutions they bring us, because of their depth of K-12 public education knowledge."

Jim Miller, CCIM, ALC,  
Lake County School Board Member City 1

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Valhalla, NY • 1.888.210.8899 • [www.conedisonsolutions.com](http://www.conedisonsolutions.com)

Burlington, MA • 781.203.2700 | Cherry Hill, NJ • 856.665.0955 | Chicago, IL • 646.533.3187 | Duncanville, TX • 214.904.8001  
Falls Church, VA • 703.875.9458 | Houston, TX • 713.343.6800 | Overland Park, KS • 800.356.1239 | Tampa, FL • 813.375.3399



***Leading our Students to Success***

201 West Burleigh Boulevard • Tavares • FL 32778-2496  
(352) 253-6500 • Fax: (352) 253-6503 • [www.lake.k12.fl.us](http://www.lake.k12.fl.us)

**Superintendent:**  
Susan Moxley, Ed.D.

**School Board Members:**  
**District 1**  
Bill Mathias  
**District 2**  
Rosanne Brandenburg  
**District 3**  
Marc Dodd  
**District 4**  
Debbie Stivender  
**District 5**  
Stephanie Luke

**Date:** 3-15-2015

**To:** Mr. Jeff Wykoff  
ConEd Solutions  
3101 West Dr. Martin Luther King Jr Boulevard  
Tampa, Florida 33607

Jeff,

Ever since the District chose ConEd Solutions in 2011 as our energy performance contracting professionals we have been very pleased with the customer focused approach that your team has taken throughout the project, from development to closeout. And, even though the project was completed in 2012, you all continue to this day to provide us with priority support and assistance whenever asked.

It has been a pleasure working with the quality people that are on your team. The project that your team worked with us to develop resulted in one of the best performing energy conservation projects with which I have been involved during my extensive career in Energy Management.

The savings from the project (over \$800K a year) has helped pay for extensive and much needed mechanical equipment and HVAC controls upgrades at a critical point in time when we did not have the means of funding the work. The District greatly appreciated your team's diligence in getting the work completed within the compact timeframe that we had to work within, while at the same time ensuring that the work was non-disruptive to our learning environment, which was critical. We consider ConEd Solutions our energy partner and look forward to future projects together.

I would wholeheartedly recommend ConEd Solutions for the provision of energy services to any organization.

Sincerely,

Pete Myles, SE, SFP  
Energy Program Manager  
Maintenance & Operations Department  
Lake County School Board



Cell: 352-636-5549

---

"Equal Opportunity in Education and Employment"

---

City of Fort Lauderdale

23

CAM # 16-0950  
Exhibit # 4  
24 of 38

## Pasco-Hernando State College (PHSC)

**Con Edison Solutions was selected by Pasco-Hernando State College (PHSC) to enhance energy conservation across multiple campuses.** The project included uncovering energy savings in a variety of areas, including HVAC, water, sewer, trash and lighting. ConEdison Solutions was the turnkey, design-build engineer and contractor for the **\$6,039,229** performance contracting project that was implemented at the East, West and North Campuses.

Highlights of the project included:

- Replacement of over 6,500 standard fluorescent fixtures with new LED fixtures
- Installation of over 1,100 occupancy sensors and controllers
- HID lighting replacements with new LED fixtures
- Chiller replacements at our East and West campuses
- Air Handling Unit (AHU) replacements
- EMS and control system modifications including VAV box reprogramming
- Installation of Variable Frequency Drives (VFDs)
- Demand controlled ventilation (DCV)
- Water meter replacement and downsizing
- Vending machine controls
- Retro-commissioning

Previous to the Performance Contracting project, the New Port Richey campus had both an air cooled chiller plant and a water cooled chiller plant with a total of 6 chillers and 12 chilled water pumps. The ConEdison Solutions' engineering team developed an innovative design solution that completely eliminated the air cooled plant by running an underground pipe to the existing water cooled plant. The design also converted the entire chilled water system to primary-variable pumping, reducing the number of chilled water pumps from 12 to 2. When the system became fully operation in the summer of 2014, there was a 33% reduction in consumption on the utility bill. The entire campus was able to run on 1 chiller, the new energy efficient centrifugal chiller that ConEdison Solutions installed in their existing water cooled plant.



March 31, 2015

Pasco-Hernando State College  
10230 Ridge Road  
New Port Richey, Florida 34654-5199

To Whom It May Concern:

The Pasco-Hernando State College (PHSC) selected ConEdison Solutions as our Performance Contracting partner after an extensive selection process that included written responses and oral interviews.

ConEdison Solutions was our turnkey, design-build engineer and contractor for the \$6,039,229 performance contracting project that was implemented at our East, West and North Campuses. We found ConEdison Solutions' ECM MasterPlan and open book pricing model to be very efficient and cost competitive.

Highlights of the project include:

- ✓ Replacement of over 6,500 standard fluorescent fixtures with new LED fixtures
- ✓ Installation of over 1,100 occupancy sensors and controllers
- ✓ HID lighting replacements with new LED fixtures
- ✓ Chiller replacements at our East and West campuses
- ✓ Air Handling Unit (AHU) replacements
- ✓ EMS and control system modifications including VAV box reprogramming
- ✓ Installation of Variable Frequency Drives (VFDs)
- ✓ Demand controlled ventilation (DCV)
- ✓ Water meter replacement and downsizing
- ✓ Vending machine controls
- ✓ Retro-commissioning

Previous to our Performance Contracting project, our New Port Richey campus had both an air cooled chiller plant and a water cooled chiller plant with a total of 6 chillers and 12 chilled water pumps.

The ConEdison Solutions' engineering team developed an innovative design solution that completely eliminated the air cooled plant by running an underground pipe to the existing water cooled plant. The design also converted the entire chilled water system to primary-variable pumping, reducing the number of chilled water pumps from 12 to 2.

When our system became fully operation in the summer of 2014, we noticed a 33% reduction in consumption on our utility bill. We were able to run our entire campus on 1 chiller, the new energy efficient centrifugal chiller that ConEdison Solutions installed in our existing water cooled plant.

**East Campus**  
36727 Blanton Road  
Dade City, FL 33523  
352.567.6701

**North Campus**  
11415 Ponce de Leon Boulevard  
Brooksville, FL 34601  
352.796.6726

**Porter Campus  
at Wiregrass Ranch**  
2727 Mansfield Boulevard  
Wesley Chapel, FL 33543  
813.527.6615

**Spring Hill Campus**  
450 Beverly Court  
Spring Hill, FL 34606  
352.688.8798

**West Campus/District Office**  
10230 Ridge Road  
New Port Richey, FL 34654  
727.847.2727

[www.phsc.edu](http://www.phsc.edu)

AN EQUAL ACCESS/EQUAL OPPORTUNITY INSTITUTION



In fact, the reduction in consumption was so dramatic that our local utility company came to our New Port Richey campus on two separate occasions, because they thought there might be something wrong with their utility meter or another part of their system.

We have been very pleased with the outcome and performance of our Performance Contracting project with ConEdison Solutions. They have a highly experienced and capable team of performance contracting specialists, professional engineers, energy engineers, project managers and construction managers.

I would gladly recommend ConEdison Solutions to anyone considering a Performance Contracting project.

If you have any questions about our project, please feel free to give me a call.

Sincerely,



Keith Braun, CFM, GGP  
Director of Facilities  
Phone: 727-816-3336

**PROJECT NAME: CITY OF FORT PIERCE**Project Location: City of Fort PierceProject Scope: Interior, exterior lighting retrofit of all City owned building assets, replacement of all City owned roadway lighting (over 4,500 cobra head and decorative post tops), replacement of chillers at City Hall and Police Station, replacement of AHUs at City Hall,Project Size (sq. ft.): VariesTotal Contract Amount: \$6,039,229Project Type: Energy Savings Performance Contract**ESCO'S ROLE IN PROJECT**Responsibilities: Turnkey, in-house, self-perform business model for all aspects of the performance contract. Providing client with one point of accountability for full project design, elect/ mechanical /plumbing /fire engineering (including signing and sealing of design drawings), subcontractor hiring/management (electrical, mechanical, controls, and structural), permitting, project management, general contracting, start-up and commissioning.Principal in Charge: Andre' LeBlanc, Director of OperationsProject Manager: Kevin Faris, MBA, LEED APMechanical Engineer:: Nikolas Nemick, MBA, PE . – Sr Mech. Eng.Electrical Engineer: Jorge Davila, P.ECommissioning: David Adams**OWNER INFORMATION**Owner: City of Fort PierceEmail: nmimms@fppwd.comContact Person, Title: Nick Mimms, Deputy City ManagerPhone: (772) 460-2200Address: 100 US 1 North, Fort Pierce, Florida

**PROJECT NAME: CITY OF PUNTA GORDA**Project Location: City of Punta Gorda

Project Scope: Upgrade existing inefficient fluorescent, incandescent, high intensity discharge (HID), metal halide HID, and high pressure sodium lighting with high efficiency fluorescent with electronic ballast, compact fluorescent, induction and LED technologies. The scope of work includes interior and exterior lighting on multiple buildings, the WTP & WWTP buildings and grounds, a parking garage, as well as recreational parks and city streetlights.

Project Size (sq. ft.): VariesTotal Contract Amount: \$725,131Project Type: Energy Savings Performance Contract**ESCO'S ROLE IN PROJECT**

Responsibilities: Turnkey, in-house, self-perform business model for all aspects of the performance contract. Providing client with one point of accountability for full project design, elect/ mechanical /plumbing /fire engineering (including signing and sealing of design drawings), subcontractor hiring/management (electrical, mechanical, controls, and structural), permitting, project management, general contracting, start-up and commissioning.

Principal in Charge: Andre' LeBlanc, Director of OperationsProject Manager: David Adams, LEED APMechanical Engineer:: Nikolas Nemick, MBA, PE . – Sr Mech. Eng.**OWNER INFORMATION**Owner: City of Punta GordaEmail: rkeeney@ci.punta-gorda.fl.usContact Person, Title: Rick Keeney, Director of Public WorksPhone: 941-575-5050Address: 3130 Cooper Street, City of Punta Gorda, FL



## 6. Minority/Women (M/WBE) Participation

### Our Approach to M/WBE Participation

ConEdison Solutions is committed to minority- and women- owned business participation and have an established procurement process and a formal Small Business Subcontracting Plan in place to insure M/WBE participation in our energy services performance contracts. As a company policy, all subcontractors that want to work with ConEdison Solutions are required to complete a Request for Qualifications Form. This form, once completed, provides Con Edison Solutions with a complete picture of the subcontractor, including subcontractor's status as a small or minority owned business and whether the subcontractor has a small business subcontracting in place. The Director of Operations reviews the Request for Qualifications Form, and, if acceptable, approves the subcontractor to be added to the list of prequalified subcontractors. From this list of prequalified subcontractors, ConEdison *Solutions'* project managers obtain no less than two bidders to provide competitive cost proposals for a given project. A similar process for qualifying equipment suppliers is also followed, but with a Vendor Self-Certification Form completed, that identifies the Vendor name, address, DUNS number NAICS Codes and whether the Vendor is a large, small and/or minority-owned business.

### M/WBE Participation Specific to City of Fort Lauderdale Energy Efficient Garage Lighting Project

ConEdison Solutions is committed to continue to expand our diversity commitment if selected by the City of Fort Lauderdale. We have reviewed the City's M/WBE Directory within the procurement section of the City's website. We have preliminarily identified M/WBE Subcontractors with whom we have worked with in the past and whom, through a competitive process, we have selected to partner with on other opportunities with the City of Fort Lauderdale. The selected firm also qualifies for the City's Local Business Preference Ordinance. If selected as the City's prime contractor for this project, ConEdison Solutions Project Manager will work with Procurement and Public Works staff to identify other local M/WBE subcontractors to be added to the pool of potential bidders for any additional professional services and installation subcontracts. It is ConEdison preference to utilize local subcontractors approved by the City of Fort Lauderdale to ensure the maximum number of jobs created by and developed projects stay with the local economy. This also satisfies other goals set forth by the City's Sustainable Action Plan.

ConEdison has done work with a number of Firms in South Florida over the years. We have identified the following Firm, which we have elected to partner with for this project pending City of Fort Lauderdale approval.

**Advanced Energy Solutions, Inc. (AES)** - additional details on this firm is provided in Section 7 – Subcontractors of this response.

Beyond AES, ConEdison Solutions intend to present other M/WBE businesses with the opportunity to participate in this project. Once our Engineers are more familiar with the garage facilities and have established the breadth and complexity of the scope of work, other M/WBE will be identified, qualified and presented with the opportunity to provide professional services and or installation subcontractor services

## 7. Subcontractors

ConEdison Solutions has completed several projects partnering with a number of Firms in South Florida over the years. We have identified the following Firm, which we have elected to partner with for this project pending City of Fort Lauderdale approval.

**Advanced Energy Solutions, Inc. (AES)** – a MBE electrical contracting company serving South Florida since 1996. They also qualify as a “Class C Business” within the City of Fort Lauderdale Local Business Preference Ordinance. Their offices are located in Fort Lauderdale, Florida. ConEdison Solutions has a strong relationship with AES, through the ConEdison Small Business Program, we have procured approximately \$16 million in lighting retrofit services through AES in the last 12 years. ConEdison Solutions has retained the services of AES to perform multiple energy conservation projects, from lighting and lighting controls to electrical services at United States Postal Service facilities throughout the United States as part of a long-term energy services contract, which ConEdison has had with USPS since 1997 serving over 18 million square feet. AES not only performs the installations at these various sites, but does so in a manner which does not impede any of the USPS mail operations. Adding to their value, AES has the capability to perform audits and surveys, photometric analysis, and pre and post measurements as part of our energy projects. If awarded the opportunity to this energy efficient garage LED retrofit project with the City of Fort Lauderdale, AES will be utilized as our installation subcontractor. ConEdison Solutions will leverage our excellent relationship with AES to best serve the needs of the City.

**Southeast Florida Lighting Inc. (SEFL)** – In addition to AES, ConEdison Solutions has procured pricing from SEFL, a Fort Lauderdale lighting distributor for the controls portion of the scope of services requested by the City of Fort Lauderdale. SEFL will provide materials only for this project should we be successful in our bid further showing our commitment to the City and its businesses.

## 8. Required Forms – Attachment A – Bid Certification

City of Fort Lauderdale

Bid 463-11684

### BID/PROPOSAL CERTIFICATION

**Please Note:** All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration) BGA INC., A CONEDISON SOLUTIONS COMPANY

Address: 3101 W. DR. MARTIN LUTHER KING, JR. BLVD. SUITE 110

City: TAMPA State: FL Zip: 33607

Telephone No. 786-459-3845 FAX No. 813-375-3400 Email: FISHERC@CONEDISOLUTIONS.COM

Delivery: Calendar days after receipt of Purchase Order (section 1.02 of General Conditions): 180

Payment Terms (section 1.04 of General Conditions): 45 days

Total Bid Discount (section 1.05 of General Conditions): 0%

Does your firm qualify for MBE or WBE status (section 1.09 of General Conditions): MBE        WBE       

**ADDENDUM ACKNOWLEDGEMENT** - Proposer acknowledges that the following addenda have been received and are included in the proposal:

| Addendum No.  | Date Issued      | Addendum No.  | Date Issued   |
|---------------|------------------|---------------|---------------|
| <u>1</u>      | <u>5/11/2016</u> | <u>      </u> | <u>      </u> |
| <u>      </u> | <u>      </u>    | <u>      </u> | <u>      </u> |

**VARIANCES:** If you take exception or have variances to any term, condition, specification, scope of service, or requirement in this competitive solicitation you must specify such exception or variance in the space provided below or reference in the space provided below all variances contained on other pages within your response. Additional pages may be attached if necessary. No exceptions or variances will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **If submitting your response electronically through BIDSYS you must also click the "Take Exception" button.**

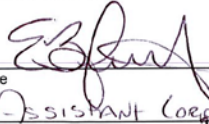
The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal. I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the City's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Name (printed) ERIC B. LAWREN

Date: 6-9-16

revised 04/10/15

Signature   
Title Assistant Corp Secretary

## Attachment B – Cost Proposal

### PACA Parking Garage: 239 fixtures

1. LED Lighting conversion with integrated fixture occupancy controls
  - a. 5 year fixture warranty - \$135,390
  - b. Alternate - 10 year fixture warranty - \$141,720
  - c. Adder – Hubbel wiSmart Control System – \$79,463

Utility Savings = \$21,705

### City Hall Parking Garage: 525 fixtures

1. Visonaire LED Lighting conversion with integrated fixture occupancy controls
  - a. 5 year fixture warranty - \$276,776
  - b. Alternate - 10 year fixture warranty - \$291,418
  - c. Adder – Hubbell wiSmart Control System – \$162,443

Utility Savings = \$48,347

### Combined: 764 fixtures

2. Visonaire LED Lighting conversion with integrated fixture occupancy controls
  - a. 5 year fixture warranty - \$412,166
  - b. Alternate - 10 year fixture warranty - \$433,138
  - c. Adder – Hubbell wiSmart Control System – \$241,906

#### Notes:

1. Quote is based on fixture quantities listed in the RFP
2. Saving calculations based on \$0.07/ kWh
3. Combined Project is eligible for approximately \$55,000 in 179D Tax Deduction
4. FPL Rebate to be calculated with upon award

## **Attachment C**

**NON-COLLUSION STATEMENT:**

**Not Applicable**

## Attachment D

**Not Applicable.**

BGA Inc., A ConEdison Solutions Company is considered a **Class D** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. and does not qualify for Local Preference consideration.

## Attachment E

Contract Payment Method - ConEdison Solutions takes exception to receiving payment using a P-Card. Our preference would be to receive payments by check.



## Attachment F – Sample Insurance Certificate

|  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
|--|---|---------------------------------|---------------------|--|---------------------------------|---|------------------------|--|--------------------------------------|--|---|--------------|--|--|--|-------|--|---------|-------------------|--|-------------------|--|
| <b>CERTIFICATE OF LIABILITY INSURANCE</b>  |   | DATE (MM/DD/YYYY)<br>02/21/2014 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>IMPORTANT:</b> If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).   |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>PRODUCER</b><br>Marsh USA, Inc.<br>1155 Avenue of the Americas<br>New York, NY 10036<br><br>104247-CESI-PL\$1M-13-14<br><br><b>INSURED</b><br>Consolidated Edison Solutions, Inc.<br>100 Summit Lake Drive<br>Suite 410<br>Valhalla, NY 10595   | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"><b>CONTACT NAME</b></td> </tr> <tr> <td><b>PHONE</b><br/>(A/C, No, Ext):</td> <td><b>FAX</b><br/>(A/C, No):</td> </tr> <tr> <td colspan="2"><b>E-MAIL ADDRESS:</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>INSURER(S) AFFORDING COVERAGE</b></td> </tr> <tr> <td><b>INSURER A:</b> First Liberty Insurance Corp.</td> <td style="text-align: right;">NAIC # 33588</td> </tr> <tr> <td><b>INSURER B:</b> Liberty Mutual Group Inc</td> <td></td> </tr> <tr> <td><b>INSURER C:</b> American Guarantee and Liability Insurance Company</td> <td style="text-align: right;">26247</td> </tr> <tr> <td><b>INSURER D:</b> Associated Electric &amp; Gas Ins Services Ltd</td> <td style="text-align: right;">3190004</td> </tr> <tr> <td><b>INSURER E:</b></td> <td></td> </tr> <tr> <td><b>INSURER F:</b></td> <td></td> </tr> </table> |                                 | <b>CONTACT NAME</b> |  | <b>PHONE</b><br>(A/C, No, Ext): | <b>FAX</b><br>(A/C, No):  | <b>E-MAIL ADDRESS:</b> |  | <b>INSURER(S) AFFORDING COVERAGE</b> |  | <b>INSURER A:</b> First Liberty Insurance Corp. | NAIC # 33588 | <b>INSURER B:</b> Liberty Mutual Group Inc |  | <b>INSURER C:</b> American Guarantee and Liability Insurance Company | 26247 | <b>INSURER D:</b> Associated Electric & Gas Ins Services Ltd | 3190004 | <b>INSURER E:</b> |  | <b>INSURER F:</b> |  |
| <b>CONTACT NAME</b>  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>PHONE</b><br>(A/C, No, Ext):  | <b>FAX</b><br>(A/C, No):  |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>E-MAIL ADDRESS:</b>   |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER(S) AFFORDING COVERAGE</b>   |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER A:</b> First Liberty Insurance Corp.  | NAIC # 33588  |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER B:</b> Liberty Mutual Group Inc   |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER C:</b> American Guarantee and Liability Insurance Company   | 26247   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER D:</b> Associated Electric & Gas Ins Services Ltd   | 3190004   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER E:</b>  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>INSURER F:</b>  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>COVERAGES</b> <b>CERTIFICATE NUMBER:</b> NYC-006808819-01 <b>REVISION NUMBER:</b>   |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.  |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| INSR LTR   | TYPE OF INSURANCE   | ADDL SUBR INSR WVD              | POLICY NUMBER       | POLICY EFF (MM/DD/YYYY)  | POLICY EXP (MM/DD/YYYY)         | LIMITS  |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| A  | <b>GENERAL LIABILITY</b><br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br><br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO. <input type="checkbox"/> JECT <input type="checkbox"/> LOC   |                                 | TB6-691-544581-093  | 09/01/2013   | 09/01/2014                      | EACH OCCURRENCE \$ 1,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000<br>MED EXP (Any one person) \$ 10,000<br>PERSONAL & ADV INJURY \$ 1,000,000<br>GENERAL AGGREGATE \$ 10,000,000<br>PRODUCTS - COMPROP AGG \$ 10,000,000 |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| A  | <b>AUTOMOBILE LIABILITY</b><br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS<br><input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS   |                                 | AS6-691-544681-053  | 09/01/2013   | 09/01/2014                      | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| C  | <input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR<br><input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE<br>DED RETENTION \$   |                                 | 6476437-00          | 09/01/2013   | 09/01/2014                      | EACH OCCURRENCE \$ 15,000,000<br>AGGREGATE \$ 15,000,000  |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| B  | <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b><br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below   | Y/N<br>N                        | WC6-691-544681-073  | 09/01/2013   | 09/01/2014                      | <input checked="" type="checkbox"/> WC STATU- TORY LIMITS <input type="checkbox"/> OTH- ER<br>E.L. EACH ACCIDENT \$ 1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$ 1,000,000<br>E.L. DISEASE - POLICY LIMIT \$ 1,000,000                        |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| D  | <b>PROFESSIONAL LIABILITY</b>   |                                 | EO5086102P          | 04/28/2013   | 04/28/2014                      | POLICY LIMIT: \$2,000,000<br>SIR: \$1,000,000   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES</b> (Attach ACORD 101, Additional Remarks Schedule, if more space is required)<br>THE CITY OF FORT LAUDERDALE IS INCLUDED AS ADDITIONAL INSURED WHERE REQUIRED BY WRITTEN CONTRACT WITH RESPECT TO GENERAL LIABILITY. THIS INSURANCE IS PRIMARY AND NON-CONTRIBUTORY OVER ANY EXISTING INSURANCE AND LIMITED TO LIABILITY ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED AND WHERE REQUIRED BY WRITTEN CONTRACT. WAIVER OF SUBROGATION IS APPLICABLE WHERE REQUIRED BY WRITTEN CONTRACT. |   |                                 |                     |  |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |
| <b>CERTIFICATE HOLDER</b><br>CITY OF FORT LAUDERDALE<br>FORT LAUDERDALE CITY HALL<br>PROCUREMENT SERVICES DIVISION<br>100 N. ANDREWS AVENUE, #619<br>FORT LAUDERDALE, FL 33301   |   |                                 |                     | <b>CANCELLATION</b><br>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.<br><br>AUTHORIZED REPRESENTATIVE<br>of Marsh USA Inc.<br>A. R. Cooke |                                 |   |                        |  |                                      |  |   |              |  |  |  |       |  |         |                   |  |                   |  |

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City of Fort Lauderdale

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CAM # 16-0950

Exhibit # 4

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