# STATE OF NORTH CAROLINA/BUNCOMBE COUNTY SCHOOLS REQUEST FOR PROPOSAL

PROJECT: LED Retrofit Kits – System Wide

(RFP# 61-16)

PROJECT DESIGNER: Clark Wyatt, Director of Maintenance

Buncombe County Schools Maintenance Department is requesting quotations on the attached materials. Please find attached specifications for LED retrofit kits along with New LED troffers.

Buncombe County Schools intends to upgrade lights in four buildings. Time is of the essence with this project.

Bids will be accepted until 12:00 p.m. on September 6, 2016. Bids can be faxed to 828-232-4244 or by replying to this email. Please let me know if you have any questions.

### 1.1 RELATED DOCUMENTS

A. All conditions of the procurement contractual documents apply to this Section.

# 1.2 SUMMARY

- A. The intent of this specification is to allow for the procurement of LED retrofit kits and New Fixture replacements for the following type fixtures.
- 1. All 2' and 4' fluorescent recessed troffers and surface fixtures with varying lamp quantities. Submit retrofit kits and new fixture replacements for the refitting of existing area lighting fluorescent troffers with LED Technology to replace fluorescent lamps and ballasts with new LED Strips and Drivers or New fixtures.
- 2. Provide step dimming options for fluorescent troffer retrofits and new fixtures to allow existing fixtures that are dual switched to be rewired as existing to switch half of the light output with either switch.
- 3. Lighting Fixture Door Replacements. 2'X4' Troffer Lens Door Replacement Kit. Door is to have positive latching mechanisms requiring no special tools to open. The lensed door with basket shall be manufactured to replace standard lay-in lensed or parabolic housings for the standard 15/16" grid systems.
- 4. It is recognized that LED technology is evolving and that each manufacturer's standard lumen outputs, efficiencies, etc. may differ somewhat. Each bidder shall provide pricing as shown with informational data as requested in order for the Owner to evaluate the best value.
  - 5. Units shall comply with the requirements of this specification.

#### **ACTION SUBMITTALS**

A. Product Data: For each type of product to be provided with bid submittal.

- 1. Arrange in order of retrofit kit and new fixture designation.
- 2. Include mounting and attachment details.
- 3. Include details of retrofit kit and new fixture assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
  - 4. Include emergency lighting units, including batteries and chargers.
  - 5. Include life, output (lumens, CCT, and CRI), and energy efficiency data.
  - 6. Include replacement door kit.
- 7. Photometric data and adjustment factors based on laboratory tests IES LM-79 and IES LM-80.
- a. Manufacturers' Certified Data: Photometric description of data certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting

Products or qualified independent testing agency.

- b. Provide photometric IES files for all kits to be submitted that have been tested, with a minimum of the following:
  - 1) Nominal 45W max replacement for lensed fluorescent troffers 10' AFF or below.
  - 8. Include diagrams for power, signal, and control wiring

## 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing laboratory providing photometric data for luminaires.
- B. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
  - C. Product Certificates: For each type of kit and fixture.
- D. Product Test Reports: For each luminaire, for tests performed by a qualified testing agency.
  - E. Warranty.

## 1.6 QUALITY ASSURANCE

- A. Photometric Data Testing Laboratory Qualifications: Luminaire manufacturer's laboratory that is accredited under the NVLAP for Energy Efficient Lighting Products.
- B. Provide retrofit kits and new fixtures from a single manufacturer for each luminaire type.
- C. Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.

## 1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect finishes of exposed surfaces by applying a strippable, temporary protective covering before shipping.

## 1.8 WARRANTY

A. Warranty: Manufacturer agree to repair or replace components of retrofit kits and new fixtures that fail in materials or workmanship within specified warranty period.

B. Warranty Period: See product specifications.

## 1.9 TROFFER RETROFIT and NEW FIXTURE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

- B. FM Global Compliance: Luminaires for hazardous locations shall be listed and labeled for indicated class and division of hazard by FM Global.
- D. Lamps dimmable from 100 percent to nominal 50 percent of maximum light output.
- G. Line voltage step dimming.
- H. LED Troffer Retrofit and New Fixture Requirements
  - 1. The following are Acceptable Manufacturers, with submissions to document specification compliance:
    - a. NetZero d. Philips g. Lithonia j. or equal
    - b. DECO e. Sylvania h. Hubbell
    - c. CLARIS f. Cree i. Heathfield
  - 2. LED
    - a. CT: 4000K
    - b. CRI: 80 min.
    - c. L70: 90,000 hrs. min
    - d. Acceptable Manufacturers: CREE, NICHEA, SSMSUNG or equal
  - 3. Driver
    - a. Input Voltage: 120V, 277V Available
    - b. Wattage: See Table Below
    - c. Power Factor: 0.9 min
    - d. THD: 20% max
    - e. Protection\*
      - 1) Overcurrent
      - 2) Short Circuit
      - 3) Over Voltage
      - 4) Over Temperature
      - 5) Integral Surge Protection
      - \*Automatic Recovery upon Removal of Fault

4. System Performance

Fixture Type	Max Watts	Lumens	# of Strips
10' AFF or Below	45	4700	4 or 6
Above 10'AFF	68	7900	6 or 8
All 2' X 2' Fixtures	24	2600	2 or 3
Lower Wattage for Use	35	3500	4
at Owner's Discretion			

## 5. Warranty

a. Driver: 5 year minimumb. LED: 10 year minimumc. Battery: 5 year minimum

## 6. Listings

a. DLC Listed b. UL 1598C Listed

# 7. Emergency Battery

a. Output: 1000 lumen minimum b. Runtime: 90 minute minimum

c. Manufacturer: Bodine, IOTA, or equal.

#### 8. Notes

- a. All Fixtures shall comply with system testing in accordance with ANSI C78.377, IES LM- 79 and IES LM-82 and with subcomponent testing in accordance with IES LM-80, IES TM-21 and UL8750.
- 9. Fluorescent Retrofit tubes shall not be considered in this bid.
- 10. Repair parts will be made available within 48 hours of request.
- 11. <u>Documentation showing unit submitted for bid meets bid specifications must accompany</u> bid. Bids not meeting specifications or without documentation will not be considered.

Please bid on each of the following	Cost per Fixture/Kit	
1) LED replacement fixture for a 2, 32 watt tube, 2'x4' lay in troffer.		
2) LED replacement fixture for a 3, 32 watt tube, 2'x4' lay in troffer.		
3) LED replacement fixture for a 3, 32 watt tube, 1'x4' lay in troffer.		
4) LED replacement fixture for a 3, 32 watt tube, 2'x4' surface mount.		
5) LED retrofit kit for a 2, 32 watt tube, 2'x4' lay in troffer.		
6) LED retrofit kit for a 3, 32 watt tube, 2'x4' lay in troffer.		
7) LED retrofit kit for a 3, 32 watt tube, 1'x4' lay in troffer.		
8) LED retrofit kit for a 3, 32 watt tube, 2'x4' surface mount.		