City of Cambridge

Purchasing Department

Cynthia H. Griffin
Purchasing Agent

TO: All Bidders

FROM: City of Cambridge

DATE: December 17, 2013

RE: File No. 6255 –City of Cambridge LED Street Lighting and Control System Installation- Addendum No. 1

The following questions were submitted and answered:

Q: Can you provide the Led light fixture part numbers?

A: Please see attached Description of Equipment

Q: Can you provide the information to distinguish between fixture types A1, A2, A3, A4 and A4E.

A:.Please see attached Description of Equipment

Q: Can you provide the manufacturer of the lighting control system and component part numbers?

A:.Lumewave TOP900TL

Q: What are the fees charged by the city DPW to provide obstruction permits for sidewalk and streets that we are required to carry in our bid?

A:. If or when a permit is required from DPW or Traffic all fee's are waived, the duration of the permit would be standard, any special requests would be reviewed

Q: Are the DPW permits good for a single location? Or is it good for the day? A week?

A:.Please see previous question and answer

All other details remain the same.

CYNTHIA H. GRIFFIN
PURCHASING AGENT

Addendum No. 1

Description of Equipment

A. Street Lighting Luminaire
   I. Luminaire shall be the Cree LEDway Street Light configured according to the catalog designations and description below and keyed by type to the drawings.
      a. Types and catalog designations
         A1 - STR-LWY-2S-HT-12-E-ULSV52540KDIMR
         A2 - STR-LWY-2S-HT-08-E-ULSV52540KDIMR
         A3 - STR-LWY-2S-HT-04-E-ULSV52540KDIMR
         A3F – STR-LWY-4M-HT-04-E-ULSV52540KDIMR
      b. Construction and Materials
         1. Housing shall be all aluminum construction.
         2. There shall be a terminal block for power input suitable for #2-#14 AWG wire.
         3. The luminaire shall be designed to mount on a 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon and/or a 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and be adjustable +/-5° to allow for luminaire leveling. A two axis T-level shall be included.
         4. The finish shall be Colorfast Delta Guard with an E-Coat epoxy primer and powder topcoat, providing resistance to corrosion, ultraviolet degradation and abrasion. The color shall be silver.
      c. Electrical System
         1. The driver shall be Class 1 capable of operating on input voltage in the range of 120-277V at 50/60Hz and drive the LED array at 525mA at full output. It shall dim the LED array in response to a 0-10V signal.
         2. The power factor shall be >0.9 at full load.
         3. Total harmonic distortion shall be <20% at full load.
         4. The power feed to the driver shall use a quick disconnect harness suitable for mate and break under load, for ease of maintenance.
         5. The system shall provide integral 10kV surge suppression protection.
         6. The luminaire shall be equipped with a receptacle for a dimming control node with photocell.
      d. Certifications
         1. The entire fixture assembly with photocell or other control node shall be UL listed for wet locations.
         2. The entire fixture assembly with photocell or other control node shall be certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards.
         3. The 10kV surge suppression protection shall be tested in accordance with IEEE/ANSI C62.41.2.
         4. The luminaire and finish shall be made to withstand 5,000 hours of elevated ambient salt fog as defined in ASTM Standard B117.
         5. The luminaire shall be qualified on the Design Lights Consortium Qualified Products List when ordered without full backlight control shield.
         6. The luminaire shall be RoHS compliant.
         7. The luminaire shall meet the Buy American requirements of the ARRA.
      e. Optics
         1. The light source shall be an LED array having a color temperature of 4000°K and minimum color rendering index of 70.
         2. The light distribution shall be IES Type II Short with the exception of Fixture type A3F which is a Type IV Medium
         3. Lumen maintenance shall be at least 91% at 50,000 hours at 15°C (59°F).
      f. Warranties
         1. The luminaire shall carry a limited warranty of 10 years.
         2. The warranty on the finish shall be 10 years.

B. Wireless Lighting Control Module (Node)

I. The wireless lighting control module shall be the Lumewave TOP900TL as described below.

a. Mounting shall be to a twist and lock receptacle supplied by the manufacturer of the module.
b. The module shall be rated IP66.
c. Dimming shall be activated by a 0-10Vdc signal from the module.
d. Communication shall be by 900mHz radio with 1-3 mile range between devices and 3-5 mile range between gateways and devices.
e. All components for control shall be installed inside the module.
f. The module shall be able to accept motion detector and call button inputs as well as accommodate up to nine time based scheduled actions per day.
g. There shall be a photocell included with adjustable thresholds.
h. The module shall be capable of data logging as well as failure and performance reporting.
i. The module shall be capable of revenue grade power metering with accuracy of +/-1%.
j. The module shall be demand responsive to real time inputs from customer systems and utilities.
k. The module shall be capable of peer to peer communication to enable group activation by single motion detector inputs.

C. Gateway

I. The system shall have gateways as necessary to communicate between the owner's Ethernet Local Area Network and all the wireless control modules in the street lights.

a. The gateway enclosure shall be a die cast aluminum waterproof box rated IP66.
b. Gateway power use shall be <20W.
c. Acceptable input power shall be in the range of 110-240Vac.
d. The system shall use the IEEE 802.15.4 standard.
e. Communication shall use AES128 encryption.
f. Control shall use the LumeStar software.
g. The gateway shall be able to be mounted on a wall or pole.