



CITY OF ANN ARBOR
PUBLIC SERVICES AREA
FIELD OPERATIONS UNIT

4251 Stone School
Ann Arbor, MI 48108
(734) 994-4918
(734) 994-0742 Fax

CITY OF ANN ARBOR, FIELD OPERATIONS UNIT
INVITATION TO BID – LED STREETLIGHT COBRA HEAD TYPE FIXTURES
BID NO. ITB-4132
DUE: January 31, 2011

Rules for Bidding:

- **Bids must be received by the Procurement Office Ann Arbor City Hall, 5th Floor 301 E. Huron St., PO Box 8647 Ann Arbor, MI 48107, by Monday, January 31, 2011, 2:00 pm. in a sealed envelope, clearly labeled Bid NO. ITB-4132, LED Cobra Head Streetlight Type Fixtures. No e-mail bids will be accepted. Bids will be opened and publicly read immediately following this deadline date and time.**
- No bidder may withdraw its bid for 90 days following the date set for opening the bid.
- The City of Ann Arbor reserves the right to accept any bid, to reject any bid or all bids, to waive irregularities and/or informalities in any bid, and to make the award in any manner deemed in the best interest of the City.
- Specifications referred to herein are used to indicate the desired type, and/or construction, and/or operation. An alternate may be offered if deviations from specifications are minor and if all deviations are properly outlined on a separate sheet. Failure to outline all deviations may be grounds for rejection of your bid (see attached specifications).
- All specification, warranty, and testing compliance and certification documentation must accompany your bid. Failure to submit requested documentation will result grounds for rejection of your bid.

- The decision of the City of Ann Arbor, acting through the Public Services Administrator, or her authorized representative, shall be final as to what constitutes acceptable deviations from specifications.
- The attached Procurement Office Contract Compliance Form should accompany your bid, as it must be a part of the lowest acceptable bid submittal. In the event that the Compliance Form does not accompany the bid, it must be completed within one day of bid opening.
- Materials must be delivered by May 1, 2011. If delivery schedule can not be met, bid will be disqualified.

**CITY OF ANN ARBOR, FIELD OPERATIONS UNIT
INVITATION TO BID – LED COBRA HEAD STREETLIGHT TYPE FIXTURES
DUE: January 31, 2011**

Bid Specifications:

GENERAL: The City of Ann Arbor Field Operations Unit is soliciting bids for three hundred (300) LED cobra head type fixtures to replace 250w HPS cobra head.

CONTACT PERSON: Questions concerning this bid should be directed to Chuck Fojtik, Sign/Signal, Communications Supervisor, Public Services Area, at (734)-794-6350 ext. 43322 Monday through Friday between 8:00am and 3:00pm.

WARRANTY: The successful bidder shall provide a copy of their warranty agreement, which must include the following provisions:

1. That all parts, workmanship and labor shall be fully guaranteed against defects in performance or construction for at least seven years from the date of installation and acceptance.
2. That any materials, parts, workmanship, labor or equipment which is found to be defective within the 7-year warranty period shall be repaired or removed at the contractor's expense regardless of any previous inspection or final acceptance by the City.
3. That any Warranty Work must be initiated by the Supplier within 48 hours following the Supplier's notification of the warranty claim or repair request.

In the event that, in the Opinion of the City, the failure of any parts, equipment, material, or workmanship, within the warranty period constitutes a failure to meet the requirements of the detailed specifications, or failure to perform satisfactorily in service, such failure shall be adequate cause for rejection of any or all equipment furnished under these listed specifications.

TERMINATION: The City of Ann Arbor reserves the right to terminate any award, with or without cause, without any liability upon ten (10) days notice from the Public Services Administrator or her authorized representative.

BID PROCESS: The award will be to the lowest qualified and responsive bidder. The City of Ann Arbor reserves the right to accept any bid, reject any or all bids, to waive irregularities and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.

If the cost of the subject bid exceeds \$10,000.00, a completed original of the City Human Rights form will be required to accompany the bid. If the subject bid exceeds \$25,000.00 City Council approval will be required before the bid will be deemed to be finally accepted.

ASSIGNMENTS: The successful bidder agrees not to assign or transfer this contract or any part thereof without the written permission of the City of Ann Arbor, acting through the Public Services Administrator or her authorized representative. Any unauthorized assignment may subject the contract to immediate termination.

ERRORS, OMISSIONS AND DISCREPANCIES: Any errors, omissions or discrepancies in the specifications discovered by a prospective contractor shall be brought to the attention of **Chuck Fojtik , Sign/Signal, Communications Supervisor, (734) 794-6350 ext. 43322** as soon after discovery as possible. Further, the contractor shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

REFERENCES: Please provide at minimum, three (3) references, preferably municipal government where your company has supplied LED COBRA HEAD STREETLIGHT TYPE FIXTURES. Failure to list references may result in disqualification.

1. _____
2. _____
3. _____

SPECIFICATIONS:

SPECIFICATION FOR LED STREET LIGHTS

A. DESCRIPTION

This specification covers the use of high output LED technology for roadway lighting applications.

B. PHOTOMETRIC PERFORMANCE

The LED luminaire shall provide an efficacy value of no less than 64 lumens per watt, with a total luminous flux of 7,770 lumens minimum and a total wattage draw of 122 watts maximum.

The manufacturer shall provide documentation via a photometric layout that their LED street light fixture meets photometric performance requirements as follows:

Parameters: 180-ft. staggered pole spacing, 30-ft. mounting height, 6-ft. arm, 3-ft. setback, 60-ft. wide roadway (5-lane). Light Loss Factor (LLF) no higher than 0.855.

Requirement: The LED luminaire shall have a type 2 or 3 distribution, and shall provide roadway lighting consistent with 1.0 fc average horizontal surface illuminance, 0.3 fc minimum, and an avg/min ratio of 3.0 or less on straight roadway segments.

The LED light engine shall meet these requirements over a -40°C (-40°F) to $+41^{\circ}\text{C}$ (104°F) ambient air temperature range.

C. TESTING COMPLIANCE AND CERTIFICATIONS

1. Thermal Management

The manufacturer shall be required to submit test data obtained from a qualified independent testing lab to verify the T_{S} temperature (in-situ LED temperature) per Energy Star methodology. The temperature shall be measured at the T_{S} location specified by the LED chip manufacturer at the innermost LED on the array, and the resulting measurement shall not exceed 55.3°C .

2. Luminaire Lifetime

The manufacturer shall submit documentation of the calculated life expectancy of their LED fixture. The documentation provided shall demonstrate via the in-situ LED temperature data, IESNA LM-80 data, and lumen depreciation data provided by the LED chip manufacturer that the L70 lifetime of the fixture is a minimum of 70,000 hours.

3. Photometrics

The LED luminaire shall produce a Type II or III light distribution and have a BUG rating of B2U2G2. Photometric performance of the LED fixture is to have been evaluated per LM-79

by a qualified independent photometric testing laboratory, and the manufacturer shall be required to submit the resulting data in LM-63 '.ies' format and the associated photometric test report. Additionally, a photometric layout demonstrating performance to the stated parameters in Section B of this specification shall be submitted by the manufacturer.

4. Safety

The entire finished LED fixture (not just arrays or other components) shall be UL Listed per UL1598 and UL8750, and shall be rated for wet locations. Labeling and documentation of compliance shall be provided by the manufacturer.

5. Quality

The manufacturer of the LED street light shall have been in operation for a minimum of 5 years, and shall be certified to ISO 9001 by a qualified accrediting body. Documentation of current ISO certification status shall be provided by the manufacturer.

D. CONSTRUCTION

1. Light Engine

Each LED light engine panel shall utilize copper composite circuit boards containing Cree XPG LEDs. The circuit boards shall be bonded to an aluminum heat sink via a thermally-conductive epoxy in order to maximize the transfer of heat from the LEDs to the ambient air yielding a heat sink thermal resistance of less than 0.25°C per watt.

2. Power Supply

One or two wide-range (120V to 277V) 100 or 150 Watt, regulated, constant current, DC power supplies shall be used. The power supply shall be compliant with all applicable UL standards.

The power supply performance shall meet the following electrical characteristics:

THD:	Less than 20%
PF:	Greater than 0.90 @ 120v
Efficiency:	Greater than 95%.

The power supply must pass the UL lightning surge test and isolate the LED light engine from power line transients.

3. Photocell Socket

The luminaire must have a twist lock photocell socket that will accept a TORK 2007 photocell.

E. ENVIRONMENTAL ASSURANCE

All LED panels shall be environmentally friendly and 100% recyclable. They shall be certified by the manufacturer as conforming to the Restriction of Hazardous Substances Directive (RoHS) adopted in February 2003 by the European Union. The manufactured product will not contain lead, mercury or hazardous substances.

F. DOMESTIC CONTENT

The manufacturer shall submit documentation certifying compliance to the "Made in the USA" requirements as specified by the Federal Trade Commission.

G. WARRANTY - LIGHT ENGINE and POWER SUPPLY

The manufacturer shall provide a 7-year warranty for the proposed LED street light. The warranty shall state that the LED array(s) will maintain a minimum of 70% of original light output, as documented in the LM-79 report provided, for the warranty period from date of manufacture, and that it shall be free of defects in materials and workmanship. It shall also state that no more than 5% of the LEDs in the luminaire can have failed catastrophically. The manufacturer shall also guarantee the power supply for a minimum period of seven (7) years against failure.

1. The successful bidder shall guarantee delivery on or before May 1 2011. If this delivery schedule cannot be met, please provide an alternate delivery schedule. The City of Ann Arbor reserves the right to reject bids which offer an unsatisfactory delivery schedule. Delivery shall be made to the following address:

City of Ann Arbor
Field Operations Unit
Sign/Signal, Communications
4251 Stone School
Ann Arbor, MI 48108

The successful bidder shall arrange, in advance, a mutually satisfactory schedule with the City for delivery.

I. QUOTATION:

We hereby offer to furnish, deliver 300 LED cobra head type streetlight fixtures.
F.O.B Destination, Freight Prepaid as specified above at:

\$ _____ US Dollars

MANUFACTURER:

IC MODEL #

AUTOSAMPLER MODEL #

COMPANY

ADDRESS

CITY

STATE

ZIP

PHONE

FAX

COMPANY REPRESENTATIVE _____

Signature

Print Name

Title

DATE SUBMITTED _____

**CITY OF ANN ARBOR PROCUREMENT OFFICE
HUMAN RIGHTS CONTRACT COMPLIANCE FORM**

Form #1

Entire Organization (Totals for All Locations where applicable)

Name of Company/Organization _____ Date Form Completed _____

Name and Title of Person Completing this Form _____ Name of President _____

Address _____ County _____ Phone # _____
 (Street address) (City) (State) (Zip) (Area Code)

Fax# _____ Email Address _____
 (Area Code)

EMPLOYMENT DATA

Job Categories	Number of Employees (Report employees in only one category)												TOTAL COLUMNS A-M
	Male						Female						
	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaskan Native	
A	B	C	D	F	G	H	I	J	K	L	M		
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
TOTAL													
PREVIOUS YEAR TOTAL													

**CITY OF ANN ARBOR PROCUREMENT OFFICE
HUMAN RIGHTS CONTRACT COMPLIANCE FORM**
Local Office (Only those employees that will do local or on-site work, if applicable)

Form #2

Name of Company/Organization _____ Date Form Completed _____

Name and Title of Person Completing this Form _____

Fax# _____ Email Address _____
(Area Code)

EMPLOYMENT DATA

Job Categories	Number of Employees (Report employees in only one category)												
	Male						Female						TOTAL COLUMNS A-M
	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	
A	B	C	D	F	G	H	I	J	K	L	M		
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
TOTAL													
PREVIOUS YEAR TOTAL													

City of Ann Arbor Procurement Office

INSTRUCTIONS FOR CONTRACTORS

For Completing CONTRACT COMPLIANCE FORM

City Policy

The “non discrimination in contracts” provision of the City Code, (Chapter 112, Section 9:161) requires contractors/vendors/grantees doing business with the City not to discriminate on the basis of actual or perceived race, color, religion, national origin, sex, age, condition of pregnancy, marital status, physical or mental limitations, source of income, family responsibilities, educational association, sexual orientation, gender identity or HIV status against any of their employees, any City employee working with them, or any applicant for employment. It also requires that the contractors/vendors/grantees include a similar provision in all subcontracts that they execute for City work or programs.

This Ordinance further requires that each prospective contractor/vendor submit employment data to the City showing current total employee breakdown by occupation, race and gender. This allows the Human Rights Office to determine whether or not the contractor/vendor has a workforce that is reflective of the availability of women and under-represented minorities within the contractor’s labor recruitment area (the area where they can reasonably be expected to recruit employees). ***This data is provided to the City on the Human Rights Office Contract Compliance Forms (attached).***

To complete the form:

1) If a company has more than one location, then that company must complete 2 versions of the form.

- **Form #1** should contain the employment data for the **entire corporation.**
- **Form #2** should contain the employment data for those employees:
 - who will be working on-site;
 - in the office responsible for completing the contract; or,
 - in the case of non-profit grantees, those employees working on the project funded by the City grant(s).

2) If the company has only one location, fill out Form #1 only.

3) Complete all data in the upper section of the form including the name of the person who completes the form and the name of the company/organization’s president.

4) Complete the Employment Data in the remainder of the form. Please be sure to complete all columns including the Total Columns on the far right side of the form, and the Total row and Previous Year Total row at the bottom of the form.

5) Return the completed form(s) to your contact in the City Department for whom you will be conducting the work.

For assistance in completing the form, contact:

Procurement Office of the City of Ann Arbor
734/994-2719

If a contractor is determined to be out of compliance, the Procurement Office will work with them to assist them in coming into compliance.