



Fayette
COUNTY

“WHERE QUALITY
IS A LIFESTYLE”

PURCHASING DEPARTMENT
140 STONEWALL AVENUE WEST, STE 204
FAYETTEVILLE, GEORGIA 30214
PHONE: 770-305-5420
www.fayettecountyga.gov

October 17, 2016

Subject: Invitation for Bids #1215-B: Sports Lighting for McCurry Park

Gentlemen/Ladies:

Fayette County, Georgia is seeking bids from qualified contractors for the design and installation of new field lights at McCurry Park Soccer Fields #22 and #23, in accordance with the information and specifications contained herein.

A pre-bid conference will be held at 10:00a.m., Thursday, October 27, 2016 starting at Fayette County McCurry Park, Soccer Field #22, at 130 County Farm Road in Fayetteville, Georgia. All companies and interested parties are invited and strongly urged to attend. This will be the opportunity to take measurements, pictures, voice all questions, concerns and comments about this Invitation for Bids and have them addressed.

All questions and inquiries concerning this invitation for bids or the specifications shall be addressed to Trina Barwicks, Contract Administrator of Purchasing, in writing to, email address: tbarwicks@fayettecountyga.gov or fax to (770) 719-5515, Monday through Friday excluding holidays from 8:00 a.m. to 5:00 p.m. The telephone number is (770) 305-5420. Any deviations from this procedure for questions or information pertaining to this invitation for bids may result in your bid being rejected.

Your bid should be on the attached pricing sheet. All prices shall be F.O.B. Destination, Fayette County. Be sure to include the **bid number** and **reference** along with your company's name and address on the **sealed** envelope in which the bid is returned.

BID MUST BE SUBMITTED TO:
FAYETTE COUNTY PURCHASING DEPARTMENT
140 STONEWALL AVENUE WEST - SUITE 204
FAYETTEVILLE, GEORGIA 30214
BID #1215-B
REFERENCE: SPORTS LIGHTING FOR McCURRY PARK

Bids will be received at the above address until 3:00 p.m., Thursday, November 3, 2016 in the Purchasing Department, Suite 204. Bids will be opened at approximately 3:00 p.m. November 3, 2016. Bids must be signed to be considered. Late bids will not be considered. Faxed bids will not be considered.

If this invitation for bids is downloaded from our web site, it is the responsibility of the individual or company that downloads this invitation for bids to continue to check the Fayette County web site for any addenda that might come out for this invitation for bids and is posted on the Fayette County web site. Fayette County shall not be responsible for any information that any individual or company fails to get in an addendum that is posted on the Fayette County web site but is not downloaded. However, if the Fayette County Purchasing Department mails/emails the invitation for bids announcement to a company or individual, we will keep a record of who we mailed/mailed that invitation for bids to and all addenda for that invitation for bids will also be mailed/mailed to those companies or individuals.

Bids will be posted on the Fayette County web site within 3 business days after the bid opening.

There is no set time for an award to be made. If an award is not made within 45 days of the bid opening, an update will be posted on the Fayette County website.

If the county awards this bid, once everything has been received by that company and the award has been completed, that information will also be posted on the Fayette County website. Please keep this procedure in mind.

Sincerely,



Ted L. Burgess
Director of Purchasing

TLB/tcb

GENERAL TERMS AND CONDITIONS

1. **Definitions:** The term “contractor” as used herein and elsewhere in these specifications shall be used synonymously with the term “successful bidder.” The term “county” shall mean Fayette County, Georgia.
2. **Binding Offer:** Each bid shall constitute a firm offer that is binding for sixty (60) days from the date of the bid opening, unless the bidder takes exception to this provision in writing.
3. **Bidder’s Questions:** The Fayette County Purchasing Department must receive questions about this invitation to bid in writing no later than 3:00pm, Monday, October 31, 2016. The county will post answers to questions and/or other information concerning the invitation to bid in the form of an addendum on the county’s website at http://www.fayettedcountyga.gov/purchasing/bids_and_proposals.asp. It is the responsibility of the prospective bidder to check the website for any addenda issued for this invitation to bid.
4. **References:** Include with your bid a list of three (3) jobs that your company has done that are of the same or similar nature to the work described in this invitation to bid, on the form provided. Include all information as requested on the form.
5. **Bid Submission:** Submit your bid, along with any addenda issued by the county, in a sealed opaque envelope with the following information written on the outside of the envelope:
 - a. The bidder’s company name,
 - b. The bid number, which is #1215-B, and
 - c. The “reference” which identifies the bid, which is “**Sports Lighting for McCurry Park**”.

Mail or deliver one (1) unbound original bid (paperclip or binder clip acceptable, no staples), signed in ink by a company official authorized to make a legal and binding offer, to:

Fayette County Government
Purchasing Department
140 Stonewall Avenue West, Suite 204
Fayetteville, GA 30214

Attention: Contracts Administrator

You may submit bids in person, by U.S. mail, or by a commercial carrier. Do not submit bids by facsimile, e-mail, or other electronic means. Once submitted, all bids become the property of Fayette County.

6. **Bid Preparation Costs:** The bidder shall bear all costs associated with preparing the bid.
7. **Late Bids:** Bids not received by the time and date of the scheduled bid opening will not be considered, unless the delay is a result of action or inaction by the county.
8. **More than One Bid:** Do not submit alternate bids or options, unless requested or authorized by the county in the Invitation to Bid. If a responder submits more than one bid without being requested or authorized to do so, the county may disqualify the bids from that responder, at the county’s option.

9. **Bid Corrections or Withdrawals:** The bidder may correct a mistake, or withdraw a bid, before the bid opening by sending written notification to the Director of Purchasing. Bids may be withdrawn after the bid opening only with written authorization from the Director of Purchasing.
10. **Defects or Irregularities in Bids:** The county reserves the right to waive any defect or irregularity in any bid received. In case of an error in extension of prices or totals in the bid, the unit prices shall govern.
11. **Brand Name:** If items in this invitation for bid have been identified, described or referenced by a brand name or trade name description, such identification is intended to be descriptive, but not restrictive and is to indicate the quality and characteristics of products that may be offered. Alternative products may be considered for award if clearly identified in the bid. Items offered must meet required specifications and must be of a quality which will adequately serve the use and purpose for which intended.
12. **Bidder Substitutions:** Bidders offering substitutions or deviations from specifications stated in the invitation to bid, shall list such substitutions or deviations on the "Exceptions to Specifications" sheet provided, or on a separate sheet to be submitted with the bid. The absence of such list shall indicate that the bidder has taken no exception to the specifications. The evaluation of bids and the determination as to equality and acceptability of products or services offered shall be the responsibility of the county.
13. **Non-Collusion:** By responding to this invitation to bid, the bidder represents that the bid is not made in connection with any competing bidder, supplier, or service provider submitting a separate response to this invitation to bid, and is in all respects fair and without collusion or fraud.
14. **Arrears:** Bids will not be accepted from any person, firm, or corporation who is in arrears in any debt or obligation to Fayette County.
15. **Bid Evaluation:** Award will be based on base bids plus any alternates selected, at the county's discretion. Award will be made to the lowest responsive, responsible bidder, taking into consideration payment terms, vendor qualifications and experience, quality, references, any exceptions listed, and/or other factors deemed relevant in making the award. The county may make such investigation as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the county all information and data for this purpose as the county may request. The county reserves the right to reject any bid item, any bid, or all bids, and to re-advertise for bids.
16. **Partial Award:** The County reserves the right to make award by field, by group of fields, by any combination of fields. The award will be made in the best interest of the county. The county reserves the right to award multiple contracts for the products or services sought by this invitation to bid.
17. **Discounts:** Cash discounts offered will be a consideration in awarding the bid, but only if they give the county at least 15 days from receipt of invoice to pay. For taking discounts, time will be computed from the date of acceptance at destination or the date a correct invoice is received, whichever is the later date. Payment is deemed made, for the purpose of earning the discount, on the date of the check. For payment of full invoice price, minimum terms of net 30 are preferred.

18. **Trade Secrets – Confidentiality:** If any person or entity submits a bid or proposal that contains trade secrets, an affidavit shall be included with the bid or proposal. The affidavit shall declare the specific included information which constitutes trade secrets. Any trade secrets must be either (1) placed in a separate envelope, clearly identified and marked as such, or (2) at a minimum, marked in the affidavit or an attached document explaining exactly where such information is, and otherwise marked, highlighted, or made plainly visible. See O.C.G.A. § 50-18-72 (A)(34).
19. **Trade Secrets – Internal Use:** In submitting a bid, the bidder agrees that the county may reveal any trade secret materials contained in the bid to all county staff and officials involved in the selection process, and to any outside consultant or other third parties who may assist in the selection process. The bidder agrees to hold harmless the county and each of its officers, employees, and agents from all costs, damages, and expenses incurred in connection with refusing to disclose any material which the bidder has designated as a trade secret.
20. **Ethics – Disclosure of Relationships:** Before a proposed contract in excess of \$10,000.00 is recommended for award to the Board of Commissioners or the County Administrator, or before the County renews, extends, or otherwise modifies a contract after it has been awarded, the contractor must disclose certain relationships with any County Commissioner or County Official, or their spouse, mother, father, grandparent, brother, sister, son or daughter related by blood, adoption, or marriage (including in-laws). A relationship that must be reported exists if any of these individuals is a director, officer, partner, or employee, or has a substantial financial interest in the business, as described in Fayette County Ordinance Chapter 2, Article IV, Division 3 (Code of Ethics).

If such relationship exists between your company and any individual mentioned above, relevant information must be presented in the form of a written letter to the Director of Purchasing. You must include the letter with any bid, proposal, or price quote you submit to the Purchasing Department.

In the event that a contractor fails to comply with this requirement, the County will take action as appropriate to the situation, which may include actions up to and including rejection of the bid or offer, cancellation of the contract in question, or debarment or suspension from award of a County contract for a period of up to three years.

21. **Contract Execution & Notice to Proceed:** After the Board of Commissioners makes an award, all required documents are received by the county, and the contract is fully executed with signature of both parties, the county will issue a written Notice to Proceed. The county shall not be liable for payment of any work done or any costs incurred by any bidder prior to the county issuing the Notice to Proceed.
22. **Unavailability of Funds:** This contract will terminate immediately and absolutely at such time as appropriated and otherwise unobligated funds are no longer available to satisfy the obligations of the county under the contract.
23. **Insurance:** The successful bidder shall, without expense to the county, carry the following insurance, to be in effect throughout the term of the contract, in at least the amounts and limits as follows:
 - a. **General Liability Insurance:** \$1,000,000 combined single limit per occurrence, including bodily and personal injury, destruction of property, and contractual liability.

- b. **Automobile Liability Insurance:** \$1,000,000 combined single limit each occurrence, including bodily injury and property damage liability.
- c. **Worker's Compensation & Employer's Liability Insurance:** Workers Compensation as required by Georgia statute.

Before a contract with the successful bidder is executed, the successful bidder shall provide Certificates of Insurance for all required coverage. The successful bidder can provide the Certificate of Insurance after award of the contract, but must be provided prior to execution of the contract document by both parties. The certificate shall list an additional insured as follows:

Fayette County Georgia
140 Stonewall Avenue West
Fayetteville, GA 30214

- 24. **Bid Bond:** You must include a bid bond with your bid, equal to five percent (5%) of the total amount bid. Bid bonds shall be provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).
- 25. **Performance and Payment Bonds:** Prior to execution of a contract, the successful bidder shall submit performance and payment bonds each equal to 100 percent of the contract value, provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).
- 26. **Unauthorized Performance:** The county will not compensate the contractor for work performed unless the work is authorized under the contract, as initially executed or as amended.
- 27. **Assignment of Contract:** Assignment of any contract resulting from this invitation to bid will not be authorized.
- 28. **Indemnification:** The contractor shall defend and indemnify the county and all its officers, agents and employees against any suits, actions, or other claims brought on account of any injuries or damages to any person, persons, or property resulting from any negligent act or fault of the contractor, or of any agent, employee, subcontractor or supplier in the performance of any contract which may be awarded. The contractor shall pay any judgment with cost which may be obtained against the county growing out of such injury or damages.
- 29. **Patent Indemnity:** The contractor guarantees to save the county, its agents, officers, or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.
- 30. **Severability:** The invalidity of one or more of the phrases, sentences, clauses or sections contained in the contract shall not affect the validity of the remaining portion of the contract. If any provision of the contract is held to be unenforceable, then both parties shall be relieved of all obligations arising under such provision to the extent that the provision is unenforceable. In such case, the contract shall be deemed amended to the extent necessary to make it enforceable while preserving its intent.

31. **Delivery Failures:** If the contractor fails to deliver contracted goods or services within the time specified in the contract, or fails to replace rejected items in a timely manner, the county shall have authority to make open-market purchases of comparable goods or services. The county shall have the right to invoice the contractor for any excess expenses incurred, or deduct such amount from monies owed the contractor. Such purchases shall be deducted from contracted quantities.
32. **Substitution of Contracted Items:** The contractor shall be obligated to deliver products awarded in this contract in accordance with terms and conditions specified herein. If a contractor is unable to deliver the products under the contract, it shall be the contractor's responsibility to obtain prior approval of the ordering agency to deliver an acceptable substitute at the same price quoted in the contractor's original bid. In the event any contractor consistently needs to substitute or refuses to substitute products, the County reserves the right to terminate the contract or invoke the "Delivery Failures" clause stated herein.
33. **Inspection and Acceptance of Deliveries:** The county reserves the right to inspect all goods and products delivered. The county will decide whether to accept or reject items delivered. The inspection shall be conclusive except with respect to latent defects, fraud, or such gross mistakes as shall amount to fraud. Final inspection resulting in acceptance or rejection of the products will be made as soon as practicable, but failure to inspect shall not be construed as a waiver by the county to claim reimbursement or damages for such products which are later found to be in non-conformance with specifications. Should public necessity demand it, the county reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Director.
34. **Termination for Cause:** The county may terminate the contract for cause by sending written notice to the contractor of the contractor's default in the performance of any term of this agreement. Termination shall be without prejudice to any of the county's rights or remedies by law.
35. **Termination for Convenience:** The County may terminate the contract for its convenience at any time with 10 days' written notice to the contractor. In the event of termination for convenience, the county will pay the contractor for services performed. The county will compensate partially completed performance based upon a signed statement of completion submitted by the contractor, which shall itemize each element of performance completed.
36. **Force Majeure:** Neither party shall be deemed to be in breach of the contract to the extent that performance of its obligations is delayed, restricted, or prevented by reason of any act of God, natural disaster, act of government, or any other act or condition beyond the reasonable control of the party in question.
37. **Governing Law:** This agreement shall be governed in accordance with the laws of the State of Georgia. The parties agree to submit to the jurisdiction in Georgia, and further agree that any cause of action arising under this agreement shall be required to be brought in the appropriate venue in Fayette County, Georgia.

Fayette County, Georgia
Checklist of Required Documents

*(Be Sure to Return This Checklist and
the Required Documents in the order listed below)*

BID #1215-B, SPORTS LIGHTING FOR McCURRY PARK

- Company information – on the form provided _____

- Bid bond _____

- Contractor Affidavit under O.C.G.A. §13-10-91(b)(1) _____

- Bid Sheet _____

- List of exceptions, if any – on the form provided _____

- References – on form provided _____

COMPANY NAME: _____

Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of Fayette County, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

#1215-B: SPORTS LIGHTING AT McCURRY PARK

Name of Project

FAYETTE COUNTY GEORGIA

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 2016 in (city) _____, (state) _____

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE _____ DAY OF _____, 2016.

NOTARY PUBLIC

My Commission Expires:

#1215-B: SPORTS LIGHTING FOR MCCURRY PARK

OBJECTIVE

Fayette County, Georgia seeks bids for design and installation of new field lights at the following location, to be completed between December 5, 2016 and February 15, 2017.

McCurry Park Soccer Field #22 at 130 County Farm Road in Fayetteville, GA
McCurry Park Soccer Field #23 at 130 County Farm Road in Fayetteville, GA
Soccer Field #22 is approximately 105' x 65'
Soccer Field #23 being approximately 115' x 75'

SCOPE OF SERVICES

The primary goals of this sports lighting project are:

1. **Life Cycle Cost:** The preferred lighting system shall be energy efficient and cost effective to operate. All maintenance cost shall be included in the offered warranty, as described elsewhere in this document. The field(s) shall be proactively monitored to detect fixture outages over a 25 year life cycle. Lights will be controllable via remote on/off controls.
2. **Environmental Light Control:** Lighting should not negatively impact the community, players or spectators with excessive spill light or glare.
3. **Guaranteed Constant Light Levels:** The lighting system is to be designed so that constant light levels are guaranteed for a period of 25 years, for the safety of players and enjoyment of spectators.

A. WORK & PRODUCT REQUIREMENTS:

- The successful contractor shall supply and install the Musco Green Lighting System Equipment *on existing poles*.
- The contractor shall provide and install equipment necessary to provide a complete operational Musco Green Lighting System that is energy efficient and cost effective to operate, does not negatively impact the community with excessive spill light or glare and provides guaranteed constant light levels for 25 years per IESNA RP-06-01. Items to be provided and installed by the contractor include, but shall not be strictly limited to the following:
 1. Musco Green Lighting System Equipment with a Musco Constant 25 warranty and maintenance program on existing poles.
 2. Electrical wire in conduit shall be THHN or THWN.
 3. Electrical conduit shall be Schedule 40 PVC
 4. All labor and materials necessary to install NEW contactors and controls.
 5. All NEW wiring to each pole location.
 6. All labor and materials necessary to aim lighting.
 7. All labor and materials necessary to install lamps and reflectors on pole top assembly.

- Light Level Requirements: Musco Sports Lighting/Contractor shall provide computer models guaranteeing constant light levels on the field over 25 years per IESNA RP-06-01. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below.

Area of Lighting	Average Maintained Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
McCurry Park Soccer Field #22	30 footcandles	2.5:1.0	77	30' x 30'
McCurry Park Soccer Field #23	30 footcandles	2.5:1.0	96	30' x 30'

- Due to glare control concerns, a minimum mounting height shall be used to ensure sufficient vertical aiming angles which reduce glare and help ensure the illumination on the playing field is balanced, providing adequate modeling of the ball for optimal playability. Due to the type and level of play expected on the field mounting heights shall be mounted to the top of the existing poles.

B. REMOTE BALLAST ELECTRICAL PERFORMANCE:

- To allow convenient access to major electrical components and to remove excess weight from the cross arms, the electrical component enclosure (ECE), shall house the ballasts, capacitors, fuses for each luminaries and lock out/tag out disconnect switch for each pole structure. The ECE shall be located on the pole approximately 10 feet above grade and should be lockable.
- Electrical component enclosures shall be hot-dipped galvanized to ASTM A-123 standards, stainless steel or heavy gauge aluminum. Due to corrosion concerns with exposed steel, painted steel enclosures or steel enclosures galvanized prior to fabrication will not be accepted.
- To protect from deterioration from exposure to the elements, all wiring shall be enclosed inside the structural components or totally within rigid or flexible conduit.
- A spiral wound wire harness with plug-in connectors on both ends shall be supplied to provide electrical connection between the electrical enclosure at the bottom of the pole and the fixtures at the top of the pole. The wire harness shall be Mylar wrapped and encased in an abrasion resistant sleeve. The harness shall be supported at the top of the pole by a wire mesh strain relief grip that is mechanically attached to the pole by an enclosed snap hook.
- All wire harness conductors shall be color coded and labeled for ease of identification. Conductors shall be sequenced, consistent with the pattern for the wiring connection identifier provided by the manufacturer. In addition, all conductors and plug-ins shall be factory tested for resistance under load, continuity, schematic sequence, and insulation integrity.

- Controls and Monitoring Cabinet to provide on-off control and monitoring of the lighting system shall be constructed of NEMA Type 4 aluminum. Communication method shall be provided by Musco Sports Lighting/contractor.
- Remote Monitoring System: System shall monitor lighting performance and notify manufacturer/contractor if individual luminary's outage is detected so that appropriate maintenance can be scheduled. Musco Sports Lighting /contractor shall notify Fayette County of outages within 24 hours, or the next business day. The controller shall determine switch position (manual or auto) and contactor status (open or closed).
- Remote Lighting Control System: System shall include lighting contactors. System shall allow Fayette County and users with a security code to schedule on/off system operation via computer or telephone and up to ten years in advance. Fayette County shall be able to assign various security levels to schedulers by function and/or fields. This function shall allow a range of privileges such as full scheduling capabilities to only having permission to turn lights on by telephone. Musco Sports Lighting /contractor shall provide and maintain a two-way communication link. The system should have trained staff available 24/7 to provide scheduling support and assist with reporting needs. A separate lighting contactor cabinet and control and monitoring system shall be provided for each electrical service.
- On site equipment shall include manual off-on-auto switches to allow for maintenance and shall accept and store schedules. The controller shall accept and store schedules, be protected against power outages/memory loss and shall reboot once power is regained and execute any commands that would have occurred during outage.
- The contractor shall provide a computer based database of actual field usage and provide reports by facility and user group.
- The designer shall verify that voltage drop to any structure does not exceed 3% of normal voltage.
- All lighting equipment shall be UL listed as individual components.
- All poles, fixtures and distribution panels shall be grounded according to National Electrical Code Recommendations.
- All structures shall be equipped with lightning protection meeting standards established by NFPA 780. Each structure shall have a ground rod of not less than 5/8" in diameter and not less than 10' in length. An 8' ground rod is permissible, provided that the ground rod extends vertically into the ground a minimum of 10'. The ground rods shall be connected to the structure by a copper main down conductor with a minimum size of #2 for poles with less than 75' mounting height and 2/0 for poles with more than 75' mounting height.
- The lighting circuits shall be designed to provide within +/- 3% of the nominal voltage to the line side of the disconnect switch or breaker in the remote electrical enclosure.
- Each pole shall have an individual circuit run to it from the main service entrance panel. Common poles shall have individual circuits to each group of lights designated to different playing areas.
- All system components shall be UL Listed for appropriate application.

C. ELECTRICAL DESIGN:

- All electrical work shall conform to the current edition of the National Electric Code.
- Equipment and material furnished under this section shall be new, unused, and shall be manufactured to the following standards:
 - I.E.E.E. – Institute of Electrical & Electronic Engineers
 - A.N.S.I. – American National Standards Institute
 - U.L. – Underwriters Laboratories, Inc.
 - I.C.E.A. – Insulated Conductor Engineers Association

- The electrical service shall be rated at least 12% of calculated KA load. Panel boards shall be rated for service entrance, NEMA 3R and each shall include a main breaker. All branch breakers shall be bolt types.
- Electrical service shall include heavy-duty lighting contactors, switches and timers.
- The contractor will coordinate remote on/off switch location with the County. The successful contractor shall provide written specs on remote on/off control switches and timers to be installed.
- The pole and the luminaries shall be designed, such that all wiring remains underground before entering the base of the pole and that no wiring shall be exposed to sun or weather as it transitions through the pole and to the ballast and on to each lamp.
- Each pole location shall have a dedicated circuit and contactor.
- No trench line or branch circuit shall cross the playing area. Branch circuits shall be buried **in conduit** with all copper wires at depths provided by NEC or by local code. Acceptable copper wire is THHN or THWN.
- No bend of any conductor shall form an included angle of less than 90 degrees nor shall it have a radius bend of less than 8”.
- All electrical equipment (panels, breakers, contactors, enclosures, conduit, wiring, fittings, etc...) **shall be new**. Do not use any existing wiring.
- All conduits above grade shall be rigid galvanized steel. Underground conduits shall be schedule 40 PVC. When an underground conduit is stuffed up, provide PVC to steel adaptor. The exposed extensions of the conduit shall be rigid galvanized steel. Electrical metallic tubing shall not be used at any location. Conduits shall be U.L. listed.
- Electrical switch gear shall be housed on a frame constructed from 3” galvanized angle iron with hardware that is either stainless steel or hot dipped galvanized.
- The electrical contractor shall coordinate the transformer and switch gear locations with the local Power Company and the County before any equipment is installed.
- The electrical contractor shall be a licensed contractor and shall be responsible for providing electrical calculations and fault current calculations including maximum available fault current to be listed on service, feeder, and branch equipment.
- The electrical contractor shall provide a detailed panel schedule and list calculated loads.
- The electrical contractor shall be responsible for labeling all equipment to code and provide manufacturers installation instructions for all equipment.

- The contractor shall obtain and pay for all permits and inspections required by the building and safety code and ordinances and the rules and regulations of any legal body having jurisdiction.

D. WARRANTY AND ACCOUNTABILITY:

- **Safety:** A UL listing for all electrical components from its connection to the feeder conductors, to its completion at the lamp socket including all connections. This listing shall be based upon UL testing and evaluation of the compatibility of the enclosures and the components for use in combination in this application in addition to the individual components being UL Listed or recognized.
- Sports Lighting Structure shall meet National Electrical Code.
- **Performance Warranty:** Musco Sports Lighting/Contractor shall guarantee in writing that all light performance criteria shall conform to the submitted photometric data as required by these specifications. Any field deviation corrections shall be the responsibility of the successful contractor including additional field aiming costs, installation of additional luminaries, and/or other corrective measures.
- Musco Sports Lighting warranty, maintenance and monitoring program shall be provided with your bid. The warranty shall include guaranteed constant light levels, system energy consumption, spill light control and structural integrity. The warranty shall also include all preventative and spot maintenance, including parts and labor for 25 years from the date the system is powered up and turned over to Fayette County. Individual lamp outages shall be repaired when the usage of any field is materially impacted. Musco Sports Lighting/Contractor shall provide group lamp replacement warranty information with your proposal. Musco Sports Lighting/Contractor shall provide lighting performance monitoring warranty information with your bid.
- **Inspection and verification:** The contractors will grid the field in accordance with the project approved computer model submittals. A Fayette County representative will be in attendance when the contractor field measures and documents the on-field illumination levels and calibrate uniformity ratios in accordance with this specification. Off-site spill and glare light levels will be measured in accordance with Musco Sports Lighting approved extended computer models submittals. All light level measurements shall meet the approved initial light level computer model submittals. If in the opinion of Fayette County the actual performance levels including foot-candles, uniformity ratios and maximum kilowatt consumptions are not in conformance with the requirements of the performance specifications and submitted information, the contractor shall be liable to any or all of the following:
 1. The contractor shall at his expense provide and install any necessary additional fixtures to meet the minimum lighting standards. The contractor shall also either replace the existing poles to meet any new wind load (EPA) requirements caused by the additional light fixtures being installed or verify by certification by a licensed structural engineer that the existing poles will withstand the additional wind load.
 2. **The contractor shall minimize Fayette County's additional long term fixture maintenance and energy consumption costs created by the additional fixtures by reimbursing Fayette County an agreed upon amount for each additional fixture required.**

3. The contractor shall remove the entire unacceptable lighting system and install a new lighting system to meet the specifications.
- All testing will be done with the entire facility illuminated. The lighting sensing surface of the light meter is to be held 36 inches above the playing surface with the sensing surface horizontal to the ground so that it detects light coming downward to the sensing surface from all directions around the ball field.
 - **A Fayette County representative shall be present during testing.**
 - The light meter utilized for the verification of the lighting performance shall be provided by the Fayette County representative and/or Musco Sports Lighting. The meter used for verification shall be of high accuracy and certified within the previous 12 months. Acceptable light meters are those manufactured by Cooke, Gossen and Minolta or approved equal.
 - For final approval of the project, the contractor shall provide a final report from the test results that shall provide the following items:
 1. Identification of numbers and location of the test stations that shall agree with the description provided in specifications.
 2. Actual horizontal foot-candle readings taken at each test station.
 3. Actual maximum foot-candle readings taken at each spill/glare test station.
 4. Number of hours of operation and number of system starts.
 - Final testing shall be done in the first 100 hours of operation. Although there may be differences from expected results to actual results on the field, there will not be an allowance of +/- 10% of predicted mean in accordance with IESNA RP-6-01. Actual field reading must meet or exceed the initial values given in the specification.
 - Testing shall also be done a maximum of every 5 years after installation or at the request of the Parks and Recreation Director to verify light levels are being maintained.

E. DOCUMENTATION & OTHER SUBMITTAL REQUIREMENTS:

- Computer generated scans showing the initial and guaranteed constant light levels.
- Light level, uniformity, and fixture alignment guarantee from Musco Sports Lighting, including the manufacturer's remedy to deficiencies. Guarantees provided by a Musco Sports Lighting's representative will not be accepted in lieu of the manufacturer's guarantee.
- Written remote ballast and spill and glare control from Musco Sports Lighting for the lighting system.
- Aiming diagram or report showing vertical aiming angles of each fixture for the field layout.
- Written specifications on remote control switches and timers to be installed.
- Drawings that indicate the number of luminaries per pole.
- A certified engineer, independent of manufacturer, shall verify and stamp wind load test of luminaries' assembly to meet or exceed structural strength. Please note, EPA test does not constitute misalignment verification.
- Written warranty from Musco Sports Lighting.
- Written warranty from contractor for contractor's work.
- Written maintenance and monitoring program.

- Written energy consumption from Musco Sports Lighting for the lighting system.
- Written 25-Year Life Cycle Cost from the Musco Sports Lighting for the lighting system. Calculations shall be equal to # of fixtures x .07 kWh rate x 350 annual hours x 25 years. Calculations should include such things as costs for energy consumption, re-lamping, maintenance, and energy controls.
- Written remote on/off control operation information for the lighting system.
- The successful contractor shall submit a copy of shop drawings for circuit breakers, lighting power panel, lighting control panel, surge suppressor and conduit and cables **once the bid has been awarded**. Fabrication shall commence only after approval of the shop drawings.
- **Upon completion of the project**, the successful contractor will submit a drawing indicating where all underground lines are buried and how deep.
- **Upon completion of the project**, the successful contractor shall provide a final report from the test results that shall provide the following items:
 - Identification of numbers and location of the test stations that shall agree with the description provided in specs.
 - Actual horizontal foot-candle readings taken at each test station.
 - Actual maximum foot-candle readings taken at each spill/glare test station.
 - Number of hours of operation and number of system starts.

F. OTHER REQUIREMENTS:

- Electrical service to the fields will be 277/480V, 3 Phase transformers. If old transformers power adjacent fields or buildings, it should remain.
- All existing underground wire will remain underground.
- The successful contractor shall repair **all** damage to walking trails, landscaping, fields, irrigation, scoreboard wires, phone lines, power lines or any park features during the installation process. All existing asphalt torn up by the successful contractor should be repaired with asphalt or concrete. **All cuts should be direct and smooth cuts**. All grass disturbed areas on the outside of the playing field should be smoothed to existing ground surface and must be seeded with Winter Blend and then straw placed over seed. Seed and straw must meet county requirements. Inside playing field should be smoothed to existing ground surface and installed with Tiftway 419 Sod.
- The successful contractor shall coordinate exact location with Fayette County prior to installation however all panel boards shall be located beside/adjacent to the transformers for each field.
- The successful contractor shall coordinate the location of remote control lighting switches with Fayette County prior to installation.
- The successful contractor shall be responsible for keeping job site clean and orderly. All excess material shall be removed from site and disposed of by the successful contractor after completion. Barricades shall be used in an effort to keep the general public from entering the work area.
- The successful contractor will locate all utilities.
- The successful contractor shall obtain all necessary permits to perform the work and arrange for inspection by authorities having jurisdiction. The successful contractor shall pay all necessary fees.
- The successful contractor shall submit a drawing indicating where all underground lines are buried and how deep.

- The successful contractor shall coordinate all work with county before any installation begins.
- Work shall be coordinated with and inspected by Fayette County. Each stage of the installation process must be inspected by Fayette County prior to proceeding to the next stage of installation. The contractor shall provide a list of the various installation stages to Fayette County prior to any installation.
- It shall be the responsibility of the contractor to measure fields to confirm actual sizes.

SOCCKER FIELD LIGHTING ALTERNATE

A. ALTERNATE FOR LED

- The purpose of this Alternate is to define the performance and design standards for the project using an LED Lighting source. The manufacturer / contractor shall supply lighting equipment to meet or exceed the standards set forth by the criteria set forth.
- The lighting system shall still meet all the Light Levels and Structural criteria in the previous sections of the specification.

B. LIGHTING PERFORMANCE

- Illumination Levels and Design Factors: The illumination levels specified shall be based on guaranteeing light levels for 25 years or 10,000 hours, whichever comes first. Light levels shall not drop below specified targeted lighting levels during the 10,000 operating hours. Appropriate light loss factors shall be applied and submitted for the basis of design.
- Horizontal illumination levels shall be based at any point on a parallel plane 36 inches above the playing surface, unless otherwise indicated and shall not exceed 0.5 foot-candles at any point. Lighting calculations shall be placed on a grid as shown in the specification.
- Spill and Glare Control: The LED design will provide better spill and glare control than a good HID design. Fixtures shall have external visors to control spill light and reduce glare.

C. LIFE CYCLE COSTS

- Energy Consumption:
 - a. Field #22 - The max kWh consumption for the soccer fields lighting system shall be 47.6 kWh or less.
 - b. Field #22 - The max kWh consumption for the soccer fields lighting system shall be 54.4 kWh or less.

D. WARRANTY AND GUARANTEE

- 25-Year Warranty: Manufacturer shall supply a signed warranty covering the entire system for 25 years from the date of shipment or 10,000, whichever comes first. Warranty shall guarantee specified light levels; include all individual outages; system energy consumption; and maintenance. Warranty shall cover all parts and labor expenses including lift rental if needed. Manufacturer shall maintain financial reserves to assure fulfillment of the warranty for the full term. Warranty may exclude fuses, vandalism, abuse, unauthorized repairs or alterations, and acts of God/nature (including but not limited to: earthquake, flood, typhoons, hurricanes, or lightning).

E. DELIVERY TIMING

- Equipment On-Site: The equipment must be on-site within 12-14 weeks from receipt of approved submittals and receipt of complete order information.

F. PRE-BID SUBMITTAL REQUIREMENTS

- Approved Product: Approval process shall be same as specified for the base bid.
- Design Approval: The owner / engineer will review pre-bid shop drawings from the manufacturers to ensure compliance to the specification. If the design meets the design requirements of the specifications, a letter will be issued to the manufacturer indicating approval for the specific design submitted.

PART 2 – PRODUCT

- System Description: Lighting system shall consist of the following:
 1. LED Lamp Technology Sports Lighting Fixtures. Minimum of 10,000 hour lamp life, instant on/off capabilities.
 2. Fixtures must have internal optic control to minimize glare for the neighboring residence and the participants. Fixtures must also have an external visor to minimize glare.
 3. Fixtures must include thermal management and come with a 25-year full coverage warranty including parts and labor.
 4. Minimum of 5,700K Color Temp and 65+ CRI
 5. Maximum Fixture Wattage of 650W to ensure adequate glare control
 6. Fixture Operating Temperature Range of -30 Degrees C to 55 Degrees C. Maximum Junction Temperature for the diodes of 80 Degrees C.
 7. Electronic Driver with an efficiency of 95% or greater. Maximum Starting inrush of 7 Amps at 25 degrees C.
- 6. Secondary Wiring: Manufacturer shall supply all necessary wiring to connect the fixture to the driver enclosure. Wiring shall be protected with either a jacketed cord or conduit.
- 7. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaires, wire harnesses, ballast and other enclosures shall be factory assembled, aimed, wired and tested.

8. Durability: The lighting system, including all mounting brackets, shall be powder-coat painted for protection. All mounting brackets are to be made of steel construction. Only stainless steel or zinc plated steel hardware is allowed
 9. Safety: All system components shall be UL Listed for the appropriate application.
- Electric Power Requirements for the Sports Lighting Equipment:
 1. Electric power: 480V
 2. Maximum total voltage drop: Voltage drop to the remote enclosure shall not exceed three (3) percent of the rated voltage.

PART 3 – EXECUTION

FIELD QUALITY CONTROL

- Illumination Measurements: Shall meet the requirements of the base bid design
- Correcting Non-Conformance: Shall meet the requirements of the base bid design

SPORTS LIGHTING FOR MCCURRY PARK - BID SHEET

DESCRIPTION	TOTAL BASE BID AMOUNT FOR HID FIXTURES
SOCCER FIELD #22	\$
SOCCER FIELD #23	\$
TOTAL BASE BID AMOUNT:	\$

ALTERNATES

DESCRIPTION	ADDITIONAL AMOUNT FOR LED FIXTURES
SOCCER FIELD #22	\$
SOCCER FIELD #23	\$

NOTES:

1. All applicable charges shall be included in your total bid amount, including but not limited to materials, equipment, installation, labor, and any other amounts. No additional charges will be allowed after the bid opening.
2. All warranty, maintenance, and light-verification testing shall be included in your total bid amount.

STATE PAYMENT TERMS _____.

IF SUCCESSFUL; WILL YOU BE ABLE TO COMMENCE WORK ON MONDAY, DECEMBER 5, 2016? _____. IF NOT, PROVIDE COMMENCEMENT DATE _____.

STATE LENGTH OF TIME TO COMPLETE PROJECT _____ DAYS.

COMPANY NAME: _____

#1215-B: SPORTS LIGHTING FOR MCCURRY PARK - REFERENCES

Please list three (3) references of current or very recent customers who can verify the quality of service your company provides. Projects of similar size and scope are required.

REFERENCE ONE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

REFERENCE TWO

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

REFERENCE THREE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

COMPANY NAME _____

BID #1215-B: SPORTS LIGHTING FOR MCCURRY PARK

COMPANY INFORMATION

Company _____

Physical Address Of Business _____

Mailing Address (**If Different**) _____

Authorized Representative _____
(Print or Type)

Authorized Representative _____
(Signature)

Title _____

Email Address: _____

Telephone Number: _____ Fax Number: _____

Cellular Number: _____