



REQUEST FOR BIDS
Public Works Contract
SPECIFICATIONS FOR MULTI PURPOSE FIELD LIGHTING

DATE OF RELEASE: February 14, 2018 at 8:00 am (cst)

DATE OF CLOSING: March 12, 2018 at 2:00 pm (cst)

RFB ID: 08312017

STATEMENT OF PURPOSE:

The City of Helena, Alabama is hereby posting this Request for Bid for the construction of a Multi Purpose Athletic field located at the Helena Sports Complex. The City of Helena will consider bid packages from qualified contractors. Any firm or bid package which is found not in compliance with the RFB specifications and requirements will be disqualified from the bid. Bids shall be sealed and delivered to the office of the City Clerk located at 816 Highway 52 East, Helena, AL 35080 or mailed to P.O. Box 613, Helena, AL 35080 no later than 2:00 pm (cst), August 31, 2017. All bids must comply with Alabama State Law, including but not limited to, Ala.Code (1975) 41-16-50 et seq. and 31-13-9 et seq. and provide documentation of enrollment in the E-Verify Program pursuant to Ala. Code 31-13-9. All bid information must be typed or printed in black ink. Bids shall be clearly marked "sealed bid", along with the bid name, number, and date of opening listed on the outside of the bid package.

SCOPE OF SERVICES:

Bid is to include labor, material and equipment to construct lighting for a multi-purpose field, 60 yards x 110 yards playing surface as specified below.

SPECIFICATIONS.

SECTION 26 56 68 – EXTERIOR ATHLETIC LIGHTING

PART 1 – GENERAL

1.1 SUMMARY

- A. Work covered by this section of the specifications shall conform to the contract documents, engineering plans as well as state and local codes.
- B. The purpose of these specifications is to define the performance and design standards for Helena Youth Soccer located in Helena, AL. The manufacturer / contractor shall supply lighting equipment to meet or exceed the standards set forth in these specifications.
- C. The sports lighting will be for the following fields:
 - 1. Soccer--Lit to IES Class IV Recreational Light levels--20 Foot Candles
- D. The primary goals of this sports lighting project are:
 - 1. Guaranteed Light Levels: Selection of appropriate light levels impact the safety of the players and the enjoyment of spectators. Therefore light levels are guaranteed for a period of 10 years.
 - 2. Environmental Light Control: It is the primary goal of this project to minimize spill light and glare.
 - 3.

1.2 LIGHTING PERFORMANCE

- A. Performance Requirements: Playing surfaces shall be lit to an average constant light level and uniformity as specified in the chart below. Light levels shall be held constant for 10 years. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below. Average illumination level shall be measured in accordance with the IESNA LM-5-04. Light levels shall be guaranteed from the first 100 hours of operation for the maximum warranty period.

Area of Lighting	Average Constant Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Soccer	20 foot candles	2:5 :1.0	84	30

- 1. Lumen maintenance control strategy: A constant light system shall use automatic power adjustments to achieve a lumen maintenance control strategy as described in the IESNA Lighting Handbook 10th Edition, Lighting Controls Section, page 16-8: "Lumen maintenance involves adjusting lamp output over time to maintain constant light output as lamps age, and dirt accumulation reduces luminaire output. With lumen maintenance control, either lamps are dimmed when new, or the lamp's current is increased as the system ages."

2. Independent Test Report: Manufacturers bidding any form of a constant light system must provide an independent test report certifying the system meets the lumen maintenance control strategy above and verifying the field performance of the system for the duration of the useful life of the lamp based on lamp replacement hours. Report shall be signed by a licensed professional engineer with outdoor lighting experience. If report is not provided at least 10 days prior to bid opening, the manufacturer shall provide the initial and maintained designs called for in this specification under Alternate Manufacturers, section 1.7.

3. Project References: Manufacturers bidding any form of a constant light system must provide a minimum of five (5) project references within the state of AL that have been completed within the last calendar year utilizing this exact technology. Manufacturer will include project name, project city, and if requested, contact name and contact phone number for each reference.

B. Mounting Heights: To ensure proper aiming angles for reduced glare and to provide better playability, the pole mounting heights from the playing field surface shall be 70 foot above grade..

1.3 WARRANTY AND GUARANTEE

10/2 Year Warranty: Each manufacturer shall supply a signed warranty covering the entire system for 10 years and lamps for two years. Warranty may exclude fuses, storm damage, vandalism, abuse and unauthorized repairs or alterations.

1.4 DELIVERY TIMING

Equipment On-Site: The equipment must be on-site 4-6 weeks from receipt of approved submittals and receipt of complete order information.

1.5 PRE-BID SUBMITTAL REQUIREMENTS

- A. Approved Product: Musco's Green Generation Lighting® sports lighting system is the approved product. All substitutions must provide a complete submittal package for approval as outlined in Submittal Information at the end of this section at least 10 days prior to bid. Special manufacturing to meet the standards of this specification may be required. An addendum will be issued prior to bid listing any other approved lighting manufacturers and designs.
- B. 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.

1.6 ALTERNATE SYSTEM REQUIREMENTS

- A. Compliance to Specifications: Acceptance of a bid alternate does not negate the contractor and lighting manufacturer's responsibility to comply fully with the requirements of these specifications. Any exceptions to the specifications must be clearly stated in the prior approval submittal documents.

- B. Light Level Requirements: Manufacturer shall provide computer models guaranteeing light levels on the field over 10 years. If a constant light level cannot be provided, the specified maximum Recoverable Light Loss Factor and maintenance/group relamping schedule shall be provided in accordance with recommendations in the Pennsylvania State University report “Empirical Light Loss Factors for Sports Lighting”, presented at the 2009 IESNA Annual Conference.

Lamp Replacement Interval (hours)	Recoverable Light Loss Factor (RLLF)
2100	0.69

For alternate systems, scans for both initial and maintained light levels are required.

Area of Lighting	Average Initial Light Levels	Average Target/Maintained Light Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Soccer	29 foot candles	20 foot candles	2:5 to 1	84	30 feet

- C. Revised Electrical Distribution: Manufacturer shall provide revised electrical distribution plans to include changes to service entrance, panel, and wire sizing.

PART 2 – PRODUCT

2.1 LIGHTING SYSTEM CONSTRUCTION

- A. System Description: Lighting system shall consist of the following:
- Galvanized cross arm assembly for attachment to Concrete poles
 - All luminaries shall be constructed with a die-cast aluminum housing or external hail shroud to protect the luminaries reflector system.
 - All luminaries, visors, and cross arm assemblies shall withstand 150 mph winds and maintain luminaries aiming alignment.
 - Manufacturer will remote all ballasts and supporting electrical equipment in aluminum enclosures mounted on pole approximately 10’ above grade. The enclosures shall be touch-safe, and include ballast, capacitor and fusing, with indicator lights on fuses to indicate when a fuse is to be replaced for each luminaire.
 - Wire harness complete with an abrasion protection sleeve and strain relief.
 - Control and Monitoring Cabinet (NEMA Type 4) to provide on-off control constructed of aluminum. Cabinet shall contain custom configured contactor modules for 30, 60, and 100 amps, labeled to match field diagrams and electrical design. Manual off-on-auto selector switches shall be provided.

- B. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaries, wire harnesses, ballast and other enclosures shall be factory assembled, aimed, wired and tested.
- C. Durability: All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All exposed carbon steel shall be hot dip galvanized per ASTM A123. All exposed aluminum shall be powder coated with high performance polyester or anodized. All exterior reflective inserts shall be anodized, coated, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All exposed hardware and fasteners shall be stainless steel of 18-8 grade or better, passivated and coated with aluminum-based thermosetting epoxy resin for protection against corrosion and stress corrosion cracking. Structural fasteners may be carbon steel and galvanized meeting ASTM A153 and ISO/EN 1461 (for hot dipped galvanizing), or ASTM B695 (for mechanical galvanizing). All wiring shall be enclosed within the cross arms, pole, conduit, or electrical components enclosure.
- D. Lightning Protection: All structures shall be equipped with lightning protection meeting NFPA 780 standards. Contractor shall supply and install a grounding electrode of not less than 5/8 inch diameter and 8 feet long, with a minimum of 10 feet embedment. Grounding electrode shall be connected to the structure by a grounding electrode conductor with a minimum size of 2 AWG for poles with 75 feet mounting height or less, and 2/0 AWG for poles with more than 75 feet mounting height.
- E. Safety: All system components shall be UL Listed for the appropriate application.
- F. Electric Power Requirements for the Sports Lighting Equipment:
 1. Electric power: Voltage _____ , Phase _____
 2. Maximum total voltage drop: Voltage drop to the disconnect switch located on the poles shall not exceed three (3) percent of the rated voltage.

2.2 EXISTING STRUCTURAL PARAMETERS

- A. Wind Load: Wind loads shall be based on IBC 2012 () MPH wind speeds

PART 3 – EXECUTION

3.1 FIELD QUALITY CONTROL

- A. Illumination Measurements: Upon substantial completion of the project and in the presence of the Contractor, Project Engineer, Owner's Representative, and Manufacturer's Representative, illumination measurements shall be taken and verified. The illumination measurements shall be conducted in accordance with IESNA LM-5-04.
- B. Correcting Non-Conformance: If, in the opinion of the Owner or his appointed Representative, 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 Manufacturer shall be liable to any or all of the following:
 1. Manufacturer shall at his expense provide and install any necessary additional luminaries to meet the minimum lighting standards. The Manufacturer shall also either replace the existing poles to meet the new wind load (EPA) requirements or verify by certification by a licensed structural engineer that the existing poles will withstand the additional wind load.
 2. Manufacturer shall minimize the Owner's additional long-term luminaries maintenance and energy consumption costs created by the additional luminaries by reimbursing the Owner the amount of \$1,000.00 (one thousand dollars) for each additional luminaries required.
 3. Manufacturer shall remove the entire unacceptable lighting system and install a new lighting system to meet the specifications.

BID RESPONSE CONTENT.

Each bid must use the following format, providing a response to each line item, and include attachments within their bid package.

QUALIFICATIONS OF CONTRACTOR.

1. Bids in excess of \$50,000 will be subject to the bid requirements applicable to Public Works Contracts, which requires a bid bond of not less than 5% of the estimated cost or of the amount bid, but not to exceed \$10,000. In addition, the winning bidder must furnish a performance bond in amount of 100% of the contract price and a payment bond in the amount of 50% of the contract price.
2. Licensed as required by Title 34, Chapter 8, Code of Alabama, 1975;
3. Provide copy of Alabama General Contractors License.
4. Able to provide a Certificate of Insurance for Comprehensive General Liability, Comprehensive Auto, and Workman's Compensation and the ability to maintain in full force and effect during the entire contract period. Liability limits should be no less than \$1,000,000.00

BID QUALIFICATIONS:

Please provide confirmation and a response to each item listed below.

Statement of qualifications and experience

Number of years engaged in business.

Fully describe your company and experiences.

History of successful and stable company operation for a period of at least (1) year.

List of past and present contracts similar to this RFP within the State of Alabama.

Include names and qualifications of personnel to be assigned to managing this proposed agreement.

The firm is currently licensed, insured, and authorized to conduct business in the City of Helena, Shelby County, and the State of Alabama.

Please attach a copy of all licenses and insurance.

Any questions may be addressed to City of Helena Park Director, Bill Miller at 249-3793.

SUBMISSION.

Bid packages shall be sealed with (1) master copy and (6) additional copies, and delivered to:

The City of Helena
ATTN: Amanda Traywick, City Clerk
816 Highway 52 East, Helena, AL 35080

All bid proposals must be received no later than the posted deadline of March 12, 2018, at 2:00 pm (cst). Bid packages submitted after the posted date and time will not be accepted. Bid packages must be sealed and clearly marked with the Bid #, title, and the date of bid opening. Proposals may not be withdrawn for a period of (30) days after the closing date. The City of Helena reserves the right to reject any and all bids.

Please insure that each item is included within your bid package. Failure to provide a complete package of submittals may result in disqualification from the bid process.

Business Name

Authorized Business Representative Name (Print)
_____/_____/_____

Authorized Business Representative Signature Date of Submission

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RFB ID: 08312017

Bid Submission:

Contractor: _____

Construction of Youth Field Lighting: \$ _____

Business Name

Authorized Business Representative Name (Print)
_____/_____/_____

Authorized Business Representative Signature Date of Submission