SUBMIT BIDS TO:	CITY OF TUSCALOOSA P.O. BOX 2089 TUSCALOOSA, AL 35403	PURCHASING OFFICE 2201 UNIV. BLVD. TUSCALOOSA, AL 35401	INVITATION TO BID
BID TITLE **CAMERA SYSTEMS & TRAFFIC SIGNAL COMPONENTS**			BID NO. 9073-121526-1
PAGE 1 OF 29 PAGES	**BIDS WILL BE OPENED AT 2:00 PM, CST ON DECEMBER 15, 2026, IN THE OFFICE OF THE PURCHASING AGENT, 2201 UNIVERSITY BLVD. TUSCALOOSA, AL 35401 AND MAY NOT BE WITHDRAWN FOR THIRTY (30) DAYS AFTER SUCH DATE & TIME.**		ISSUE DATE 11/17/26

City of TUSCALOOSA

MAYOR
WALTER MADDOX

COUNCIL MEMBERS

JOSEPH EATMON, SR.	VACANT
RAEVAN HOWARD	JOHN FAILE
RICHARD HENRY	CASSIUS LANIER
LEE BUSBY	

PURCHASING AGENT
AMANDA GANN

Vendor Information

(SECTION TO BE COMPLETED BY VENDOR)

_____
Company Name (Please Print)

_____ _____
Phone Number **Point of Contact**

_____
Email Address

GENERAL CONDITIONS OF INVITATIONS TO BID

Clear Form Save As

1. PREPARATION OF BIDS

Bids will be prepared in accordance with the following:

(a) Our enclosed Bid forms are to be used in submitting your bid.

(b) All information required by the Bid form shall be furnished. The bidder shall print or type his name and manually sign the schedule and each continuation sheet on which any entry is made.

(c) Unit prices shall be shown and where there is an error in extension of price, the unit price shall govern.

(d) Proposed delivery time must be shown and shall include Sundays and holidays.

(e) Bidder will not include federal taxes nor State of Alabama sales, excise, and use taxes in bid prices as the City is exempt from payment of such taxes. An exemption certificate will be signed where applicable upon request.

(f) Bidders shall thoroughly examine the drawings, specifications, schedule, instructions and all other contract documents.

(g) Bidders shall make all investigations necessary to thoroughly inform themselves regarding plant and facilities for delivery of material and equipment as required by the bid conditions. No plea of ignorance by the bidder of conditions that exist or that may hereafter exist as a result of failure or omission on the part of the bidder to make the necessary examinations and investigations, or failure to fulfill in every detail the requirements of the contract documents, will be accepted as a basis for varying the requirements of the City or the compensation to the vendor.

(h) Bidders are advised that all City Contracts are subject to all legal requirements provided for in the Purchasing ordinance and/or State and Federal Statutes.

2. DESCRIPTION OF SUPPLIES

(a) Any manufacturer's names, trade names, brand name, or catalog numbers used in specifications are for the purpose of describing and establishing general quality levels. SUCH REFERENCES ARE NOT INTENDED TO BE RESTRICTIVE. Bids will be considered for any brand which meets the quality of the specifications listed for any items.

(b) Bidders are required to state exactly what they intend to furnish, otherwise they shall be required to furnish the items as specified.

(c) *Bidders will submit, with their proposal, data necessary to evaluate and determine the quality of the item(s) they are bidding.*

3. SUBMISSION OF BIDS

(a) All bids must be sealed, which means a bid must be enclosed in an envelope or package that is securely closed, not viewable without opening, and labeled as instructed. The envelope must be sealed in a way that reveals any tampering. If using an outer shipping package, the inner envelope must still be sealed and clearly labeled.

(b) See INSTRUCTIONS TO BIDDERS for detailed instructions about submitting a sealed bid. Telegraphic bids will not be considered.

4. REJECTION OF BIDS

(a) The City may reject a bid if:

1. The bidder misstates or conceals any material fact in the bid, or if,
2. The bid does not strictly conform to the law or requirement of bid, or if,
3. The bid is conditional, except that the bidder may qualify his bid for acceptance by the City on an "all or none" basis, or a "low item" basis. An "all or none" basis bid must include all items upon which bids are invited.

(b) The City may, however, reject all bids whenever it is deemed in the best interest of the City. The City may also waive any minor informalities or irregularities in any bid.

GENERAL CONDITIONS OF INVITATIONS TO BID

5. WITHDRAWAL OF BIDS

(a) Bids may not be withdrawn after the time set for the bid opening for a period of time as specified.

(b) Bids may be withdrawn prior to the time set for the bid opening.

6. LATE BIDS OR MODIFICATIONS

(a) Bids and modifications received after the time set for the bid opening will not be considered.

(b) Modifications in writing received prior to the time set for the bid opening will be accepted.

7. CLARIFICATIONS OR OBJECTION TO BID SPECIFICATIONS

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of the specifications or other bid documents of any part thereof, he may submit to the Purchasing Agent on or before five (5) days prior to scheduled opening a request for clarification. All such requests for information shall be made in writing and the person submitting the request will be responsible for its prompt delivery. Any objection to the specifications and requirements as set forth in this bid must be filed in writing with the Purchasing Agent on or before five (5) days prior to scheduled opening.

8. DISCOUNTS

(a) Bidders may offer a cash discount for prompt payment; however, such discounts shall NOT be considered in determining the lowest net cost for bid evaluation purposes. Bidders are encouraged to reflect cash discounts in the unit prices quoted.

(b) In connection with any discount offered, time will be computed from the date of receipt of supplies or services or from the date a correct invoice is received, whichever is the later date. Payment is deemed to be made on the date of mailing of the check.

9. SAMPLES

Samples, when required, must be submitted within the time specified at no expense to the City of Tuscaloosa. If not destroyed or used up during testing, samples will be returned upon request at the bidder's expense, unless stated otherwise in Special Conditions or Specifications. Each individual sample must be labeled with bidder's name and manufacturer's brand name and number.

10. AWARD OF CONTRACT

(a) The contract will be awarded to the lowest responsive and responsible bidder based upon the following factors: quality; conformity with specifications; purpose for which required; terms of delivery; transportation charges; dates of delivery.

(b) The city reserves the right to accept and award item by item, and/or by group, or in the aggregate, unless the bidder qualifies his bid by specified limitations. Re Par.4(a)3.

(c) Prices quoted must be FOB Destination to Tuscaloosa with all transportation charges prepaid unless otherwise specified in the Invitation to Bid.

(d) A written award of acceptance (Purchase Order), mailed or otherwise furnished to the successful bidder shall result in a binding contract.

(e) If two or more bids received are for the same total amount or unit price, quality and service being equal, the contract shall be awarded to a local bidder.

(f) The term of this contract shall be for a period of one (1) year from the date of the Purchase Order.

(g) Eligibility for Price Adjustment - The City may consider a price adjustment under this contract solely due to a change in tariffs imposed by a governmental authority that directly impacts the cost of a product or a clearly defined component part thereof and only if the vendor fulfills all of the City's conditions and requests for information and documentation. To be eligible for consideration, the request for a price adjustment and the net change in cost attributable to the tariff must exceed five percent (5%) of the total contract price. Adjustment Limitations - Any price adjustment granted under this provision shall be limited to the lesser of: (i) Twenty percent (20%) of the original contract price, or (ii) One-half (50%) of the net increase caused by the tariff. Basis Date for Tariff Adjustment Evaluation - The basis date for evaluating eligibility for tariff adjustments shall be as follows: The latest of five (5) days prior to the bid submission date, proposal submission date, or the date of receipt for the best and final offer, as indicated on the appropriate basis form. Tariff Adjustment Requests - All requests for tariff price adjustments must meet the following requirements:

a. **Written Submission**: Requests must be submitted in writing, with a comprehensive cost breakdown detailing how the tariff has affected the total cost of the finished product.

b. **Proof of Tariff Payment**: Requests must include official importer receipts or customs documentation demonstrating proof of tariff payment, including the transaction date.

c. **Direct Impact Evidence**: Requests will only be considered if they clearly demonstrate that the tariff directly impacts the goods or components being purchased under this contract.

d. **Approval Requirement**: All tariff-related price adjustments are subject to the City's sole discretion. Written approval from the City is required prior to implementing any price change. No adjustment will be considered valid until such written approval by the City is provided.

GENERAL CONDITIONS OF INVITATIONS TO BID

(h) Price Commitment. Awarded bidders must honor the bid prices for the entire contract period. The prices quoted in the bid shall remain firm and unchanged throughout the contract's term, except in the case of adjustments due to tariff actions as described herein. Awarded bidders who fail to honor the bid prices for the full contract term will have their bid award rescinded for the remainder of the awarded contract period. Additionally, such failure may result in the rejection of any future bids submitted by the vendor to the City.

11. DELIVERY

(a) Deliveries are to be FOB Destination unless otherwise specified in the Invitation to Bids.

(b) Deliveries are to be made during regular business hours.

12. CONDITION OF MATERIALS AND PACKAGING

All items furnished must be new and free from defects. No others will be accepted under the terms and intent of this bid. All containers shall be new and suitable for storage or shipment, and price bid shall include standard commercial packaging.

13. CLAIMS

Successful bidder(s) will be responsible for making any and all claims against carriers for missing or damaged items.

14. LOCAL, STATE, AND FEDERAL COMPLIANCE REQUIREMENTS

Bidders shall comply with all local, state, and federal directives, orders and laws as applicable to this bid and subsequent contract(s). Bidders must be eligible to do business in the State of Alabama pursuant to Title 10A of the Code of Alabama. Contract award to purchase the materials covered in this Invitation to Bid and the purchase contract shall be construed and governed by the laws of the State of Alabama and each party hereto agrees to be subject to the jurisdiction of the courts if the State of Alabama.

15. PROVISION FOR OTHER AGENCIES

Unless otherwise stipulated by the bidder, the bidder agrees when submitting his bid to make available to all City agencies, departments, and in-city municipalities the bid prices he submits, in accordance with the bid terms and conditions, should any said department, agency, or municipality wish to buy under this proposal.

16. COLLUSION

The bidder, by affixing his signature to this proposal, agrees to the following: "Bidder certifies that his bid is made without previous understanding, agreement, or connection with any person, firm, or corporation making a bid for the same items and is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action".

17. VARIANCE IN CONDITIONS

Any and all special conditions and specifications attached hereto which vary from General Conditions shall have precedence.

18. TERMINATION

Termination for Convenience. The City may, at its sole discretion and for its convenience, terminate this Agreement in whole or in part at any time by providing written notice to the Vendor.

Termination for Cause. The City may terminate this Agreement, in whole or in part, if the Vendor fails to perform or comply with any material requirement. The City will provide written notice.

19. FORCE MAJEURE

Neither Party will be liable for any delay or failure to perform due to events not foreseeable to the parties at the time of the execution of this Agreement including, but not limited to: fire, flood, earthquake, act of God, declared war upon the United States of America, an act of terrorism against the Vendor against the City of Tuscaloosa or against the United States government, or official United State Government actions that make it physically or legally impossible to fulfill the terms of this agreement and related quotes and orders.

SPECIAL CONDITIONS

The General Conditions of Invitations to Bid and any Special Conditions stated shall be considered as part of the specifications of the bid.

ADDENDUM

Any addenda issued for this bid will be posted on the City of Tuscaloosa website at http://www.tuscaloosa.com/bids.
It is the responsibility of the bidder to check this page for any addendums before submitting their bid.

HOW TO ASK QUESTIONS

Any questions concerning the bid process and/or specifications should be directed to https://bit.ly/ContactPurchasing.

BRAND REFERENCES & EQUIVALENTS

- **Brand References** – Brand names and model numbers are descriptive only, unless specifically stated as restrictive.
- **Equivalent Items** – Bids offering equivalent items of equal quality will be considered if the bid clearly describes the article and explains any differences.
- **Required Documentation** – Descriptive literature, manufacturer specifications, and any supplemental comparison data must be submitted with the bid; referencing prior submissions on file will not satisfy this requirement.
- **City Review** – City personnel will determine whether an item meets specifications. Failure to provide the required documentation may result in rejection.
- **Exceptions** – Any exceptions must be detailed on the bidder's letterhead and attached to the bid.

AWARD STRUCTURE

The City intends to award to one or more Primary Vendor(s). The City reserves the right to also designate one or more Secondary Vendor(s) to be utilized at the City's discretion.

The City may purchase from a Secondary Vendor if the Primary Vendor is unable to provide the item(s), fails to meet delivery requirements, or cannot fulfill the order within a time frame deemed reasonable by the City.

Any Secondary Vendor shall be bound by all pricing, terms, and conditions of this bid. By submitting a bid, all bidders acknowledge and agree that they may be designated as a Secondary Vendor.

Failure of a Primary Vendor to meet bid pricing, performance expectations, and/or delivery may result in partial or full reallocation of purchases to a Secondary Vendor.

SCOPE OF AWARD AND EXTENSION OF PRICING

The items listed within each schedule are representative of the most commonly purchased by the City and not intended to be an exhaustive list. Awarded bidder(s) must agree to extend similar pricing or discount structure to related products within the same product category, manufacturer line, or schedule that are not specifically itemized in this solicitation.

QUANTITIES

The City makes no guarantee of any minimum or maximum purchase quantities under this contract. No estimated usage will be provided, and no guaranteed sales volume is implied or promised. Purchases will be made on an as-needed basis throughout the contract term.

DISCONTINUED OR SUPERSEDED PRODUCTS

If any product identified in this solicitation is discontinued, superseded, replaced or otherwise becomes unavailable, the Bidder shall propose the manufacturer's direct replacement or successor product. The proposed replacement shall be equivalent in intended function, features, and application. The City reserves the right to approve or reject any proposed replacements.

SPECIAL CONDITIONS

DELIVERY LOCATIONS

Orders shall be delivered, as specified by the City at the time of order, to one of the following facilities:

Public Works	Facilities Maintenance Warehouse
1000 Nicks Kids Ave Tuscaloosa, AL 35401	1209 James I Harrison Jr Pkwy E Tuscaloosa, AL 35405-2537

For these City facilities, the receiving hours are between the hours of 7:30am – 2:30pm, CST, Monday – Friday, with no deliveries received on City observed holidays. The City's observed holidays are at https://www.tuscaloosa.com/holidayschedule.

AUTHORIZED DEALERS/RESELLERS

For any item, product, or schedule specifically identified in this solicitation as requiring manufacturer authorized distribution, the Bidder must be a current authorized distributor, dealer, or reseller for the applicable manufacturer. For each item or schedule, the bid response must include documentation from the manufacturer, or other documentation acceptable to the City, confirming the Bidder's current authorization. At minimum, the documentation must:

- Clearly identify both the manufacturer and the Bidder
- Confirm that the Bidder is a current authorized distributor, dealer, or reseller
- Identify the applicable territory and/or geographic zone, if the authorization is territory specific. Documentation that does not match the required territory or geographic zone, where applicable, will be rejected.
- Be valid on the date the bid response is submitted. Documentation that has expired or falls outside the stated authorization period will not be accepted.

The City reserves the right to verify a Bidder's authorization status directly with the manufacturer at any time during the solicitation process or contract term. **Failure to provide the required manufacturer authorization documentation for an item or schedule for which such authorization is expressly required may result in rejection of the affected item or schedule as non-responsive.**

DEFECTIVE OR NONCONFORMING PRODUCTS

All products furnished shall be new, first-class, free from defects and conform to the specification of this IFB. In the event any product or batch/lot is found to be defective, inaccurate, or nonconforming, the Vendor shall, upon notification, promptly replace the affected products at no cost to the City (includes shipping, handling, and any associated costs).

NOTICES AND CONTRACT REPRESENTATIVE

Upon awarding the contract, the following individuals will serve as the designated point of contact by Schedule.
The designated point of contact will oversee and facilitate Contract administration and compliance:

For City of Tuscaloosa:

Schedules: 2,3,4,6,7,8,9,10			Schedules: 1, 2 5	
Name	**Greg Marler**		**Name**	**Jonathan Skelton**
Title	**Traffic Crew Supervisor**		**Title**	**Chief Technology Officer**
Email	**tmarler@tuscaloosa.com**		**Email**	**jskelton@tuscaloosa.ccom**
Phone	**205-548-5811**		**Phone**	**205-248-5056**
Cell	**205-210-1894**			

Important: *This information is for use **after the bid award**. During the bid submission and evaluation process, all inquiries must follow the communication procedures outlined herein. Unauthorized communication with City employees outside this process may result in bid disqualification.*

SPECIAL CONDITIONS

INVOICING

Invoices shall be emailed to **accountspayable@tuscaloosa.com** and must include:

- Vendor name and address
- Purchase Order (PO) number
- Unique invoice number and invoice date
- Detailed description of goods provided
- Total invoice amount

LOCAL, STATE, AND FEDERAL COMPLIANCE REQUIREMENTS

Bidders do not need a City of Tuscaloosa Business License, Certificate of Authority from the Alabama Secretary of State, nor E-Verify certification to submit a bid, but will need to provide this information (as applicable) prior to issuance of Purchase Order. Upon notification of award, the successful bidder will have 10 business days to provide requested compliance documents. Failure to obtain and maintain these requirements through contract term may result in rescinding of bid award and/or contract termination.

Awarded bidder may be required to obtain a City of Tuscaloosa business license to provide goods and/or services in response to this bid and subsequent contract(s). Inquiries regarding business license requirements should be directed to the City's Revenue Division at (205) 248-5200. Failure to obtain and maintain the required city business license(s) may result in rescinding of bid award and contract termination.

If the successful bidder's principal place of business is out-of-state, vendor may be required to have Certificate of Authority to do business in the State of Alabama from Secretary of State prior to issuance of Purchase Order. Vendors are soley responsible for consulting with Secretary of State.

Successful bidders may be required to provide verification of enrollment in the E-Verify program. Additional information may be found at https://immigration.alabama.gov/.

PLEASE CONTINUE READING THE NEXT PAGE

INSTRUCTIONS TO BIDDERS

Bid Submission Requirements

1. **Completed Bid Forms** – Use the forms included herein to submit your response.
    a. Use the provided fillable PDF version of the bid forms.
    b. All forms must be completed in full and returned in the original format. Do not reformat, rearrange, or recreate the bid forms.
    c. Each page that requires a signature must be signed by an authorized representative.
    d. Signature fields are intentionally not prefilled in the PDF. It is the bidder's responsibility to sign each applicable page after completing the fillable fields.
        i. Acceptable methods include wet ink (handwritten) or a verified digital signature.
        ii. Typed names without authentication are not sufficient.
    e. Bids that are incomplete, unsigned, or submitted with altered forms may be deemed non-responsive and rejected.
2. **Supporting Documentation** – Include any technical literature, specifications, or other documentation as outlined in this IFB.
3. **Additional Required Items** – Submit any other required items, such as forms, samples, or documents requested in this IFB.
4. **W-9 Form** – Include a completed and signed IRS Form W-9. A blank template is available at: https://www.irs.gov/pub/irs-pdf/fw9.pdf.
5. **Acknowledged Addenda** – If applicable, include all completed and signed addenda.
    a. *It is the bidder's responsibility to monitor the City's official website for issued addenda. www.tuscaloosa.com/bids*
6. **Bid Submission Methods and Bid Envelope Instructions as detailed below MUST be followed.**

Bid Submission Methods

Bidders must choose one of these four bid submissions listed below:

1. Electronic Submission

Bidders may submit complete bid packages as PDF files at: www.centralbidding.com.
For technical assistance, contact Central Bidding at (225) 810-4814 or support@centralbidding.com**.**

2. Commercial Delivery Service (e.g., UPS, FedEx, DHL)

Bidders may submit sealed bids using a commercial delivery service (e.g., UPS, FedEx, DHL).

Physical Delivery Address for Commercial Delivery Service
Amanda Gann, Purchasing Agent
City of Tuscaloosa
2201 University Boulevard, Tuscaloosa, AL 35401

3. Delivery by USPS Mailing Method

*****Important Note on USPS Mailing Method:**
Do not use standard USPS First-Class or regular stamped mail. Bids submitted this way will not be accepted.
*If using the U.S. Postal Service, the bidder **MUST SELECT** a USPS service that includes both tracking and signature confirmation (e.g., Priority Mail with Signature Confirmation).
*The City is not responsible for misrouted or delayed USPS mail, and late submissions will not be accepted under any circumstance.

Mailing Address for USPS is different than the other delivery methods. Address for USPS delivery is
Amanda Gann, Purchasing Agent
City of Tuscaloosa
PO Box 2089, Tuscaloosa, AL 35403

4. Hand Delivery

Bidders may hand-deliver sealed bids to the security desk at the City Hall complex. Entry is located on the 4th level of the Intermodal Facility parking deck, accessible from 7th Street beside Government Plaza. Security will notify Purchasing staff.

Hand Delivery Address
Amanda Gann, Purchasing Agent
City of Tuscaloosa,
2230 7th St, Tuscaloosa, AL 35401

INSTRUCTIONS TO BIDDERS CONTINUED ON NEXT PAGE

INSTRUCTIONS TO BIDDERS, CONTINUED

Bid Envelope Instructions

1. Outer Envelope Labeling Requirements
   a) Outer Envelope **MUST HAVE THE WORD "BID"** prominently displayed somewhere on the outside envelope
   b) Outer Envelope **MUST HAVE** Bidder's name and address
   c) Outer Envelope **MUST HAVE** Bid Title (found on Page 1 of this document)
   d) Outer Envelope **MUST HAVE** the Date and Time of the Bid Opening (found on Page 1 of this document or as revised by an issued Addenda)

2) Additional Notes

   a) One bid per sealed envelope
   b) Allow adequate delivery time
   c) Improperly packaged, labeled, or misrouted envelopes may result in bid rejection

Bid Opening

The bid opening is open to the public and may be attended in person.

- Bids will be publicly opened and read aloud at the date, time, and location specified on Page 1 of this IFB (or as amended via addendum).
- Only the names of bidders and total base bid amounts (if applicable) will be announced at the opening. Detailed evaluations or award decisions will not be made at that time.
- Bids received after the official deadline will be marked late and returned unopened.
- Bidders are responsible for ensuring that their bids are received by the deadline. No exceptions will be made for late deliveries regardless of the cause.

Bid results will be:

- Posted as a preliminary bid tabulation on the City's website following the opening, which are advertised at www.tuscaloosa.com/bids.

Any changes to the bid submission deadline or opening schedule will be issued through a formal Addendum, which are advertised at www.tuscaloosa.com/bids. Bidders are responsible for monitoring the website for updates.

PLEASE CONTINUE READING THE NEXT PAGE

SPECIFICATIONS

SCHEDULE 1 - SPECIFICATIONS FOR FIBER OPTIC SUPPLIES

No Equivalents – Brand/Manufacturer Specific: For this Schedule, the brand names, manufacturers, model numbers, and/or products specified are mandatory requirements and are not descriptive references. Equivalent, alternate, substitute or equal products will not be considered. Bidders must provide the exact item(s) specified. Any bid offering a different manufacturer, brand, model or substitute product for this Schedule will be considered non-responsive for this Schedule.

GENERAL CONSIDERATIONS

- The cable shall meet all requirements stated in this specification.
- The cable shall meet the requirements set forth in United States Department of Agriculture Rural Utilities Service (RUS) 7 CFR 1755.900.
- The cable shall meet the requirements of the most recent edition of ANSI/ICEA S-87-640.
- Fiber and cable shall come from the same manufacturer to ensure complete product integration, long term reliability, and availability of fully integrated technical support.
- Manufacturer shall have a minimum of 20 years of experience in manufacturing optical fiber cable in order to demonstrate reliable field performance.
- The cable must be manufactured in a NAFTA facility.

FIBER CHARACTERISTICS

Additional fiber details:

- A Germania-doped silica core surrounded by a concentric silica glass cladding shall comprise each optical fiber.
- The fiber shall be a matched clad design manufactured by the Outside Vapor Deposition (OVD) process.
- Each optical fiber refractive index profile shall be step index.
- Each fiber shall be proof tested by the fiber manufacturer at a minimum of 100 kpsi (0.7 GN/m2).
- The fiber shall be coated with a dual acrylate protective coating and the coating shall be in physical contact with the cladding surface.
- Single-mode fiber shall meet EIA/TIA-492 CAAB “Detail Specification for Class IVa Dispersion-Unshifted Single-Mode Optical Fibers with Low Water Peak,” and ITU-T G.652D“Characteristics of a single-mode optical fiber and cable.”

SPECIFICATIONS FOR OUTDOOR CABLE CONSTRUCTION

- Each fiber shall be distinguishable by means of color coding in accordance with TIA/EIA-598-A, “Optical Fiber Color Coding.” The fibers shall be colored with ultraviolet (UV) curable inks.
- Buffer tubes containing fibers shall be color coded with distinct and recognizable colors in accordance with TIA/EIA-598-A, “Optical Fiber Cable Color Coding.”
- Buffer tube colored stripes shall be inlaid in the tube by means of co-extrusion when required. The nominal width shall be 1 mm.
- For cables containing more than 12 buffer tubes, standard colors are used for tubes 1 through 12 and stripes are used for tubes 13 through 24. The color sequence applies to tubes containing fibers only, and shall begin with the first tube. If fillers are required, they shall be placed in the inner layer of the cable. The tube color sequence shall start from the inside layer and progress outward.
- In buffer tubes containing multiple fibers, the colors shall be stable across the specified storage and operating temperature range and not subject to fading or smearing onto each other. Colors shall not cause fibers to stick together.
- Buffer tubes shall be resistant to external forces and shall meet the buffer tube cold bend and shrinkback requirements of 7 CFR 1755.900.

SPECIFICATIONS

- Fillers may be included in the cable core to lend symmetry to the cable cross-section where needed. Fillers shall be placed so that they do not interrupt the consecutive positioning of the buffer tubes. In dual layer cables, any fillers shall be placed in the inner layer. Fillers shall have a nominal outer diameter of 3.0 mm.
- The central member shall consist of dielectric, glass reinforced plastic (GRP) rod (optional steel central member). The purpose of the central member is to provide tensile strength and prevent buckling. The central member shall be over coated with a thermoplastic when required to achieve dimensional sizing to accommodate buffer tubes/fillers.
- Each buffer tube shall contain a water-swellable yarn for water blocking protection. The water-swellable yarn shall be non-nutritive to fungus, electronically non-conductive, and homogenous. It shall also be free of dirt or foreign matter. This yarn will preclude the need for other water-blocking material. The buffer tube shall be gel free.
- Optical fibers shall not require cleaning before placement into a splice tray or fan-out kit.
- Buffer tubes shall be stranded around the dielectric central member using reverse oscillation lay (S-Z) stranding process. Water-swellable yarn(s) shall be applied longitudinally along the central member during stranding.
- Two polyester yarn binders shall be applied contra-helically with sufficient tension to secure each buffer tube layer to the dielectric central member without crushing the buffer tubes. The binders shall be non-hygroscopic, non-wicking, and dielectric with low shrinkage.
- For single layer cables, a water-swellable tape shall be applied longitudinally around the outside of the stranded tubes/fillers. The water-swellable tape shall be non-nutritive to fungus, electrically non-conductive, and homogenous. It shall also be free of dirt and foreign matter.
- At least one water-swellable yarn shall be wrapped around the central member, all along the cable, to prevent water migration down the cable core.
- Non-armored cables shall contain at least one ripcord under the sheath for easy sheath removal. Armored cables shall contain at least one ripcord under the inner sheath and at least one ripcord under the steel armor for easy sheath removal.
- Tensile strength shall be provided by the central member, and additional dielectric yarns as required.
- The dielectric yarns shall be helically stranded evenly around the cable core.
- Non-armored cables shall be sheathed with medium-density polyethylene (MDPE). The MDPE jacket/sheath shall have a minimum thickness of 1.4 mm. Jacketing material shall be applied directly over the tensile strength members (as required) and water-swellable tape. The polyethylene shall contain carbon black to provide ultraviolet light protection and shall not promote the growth of fungus. See Figure 1.

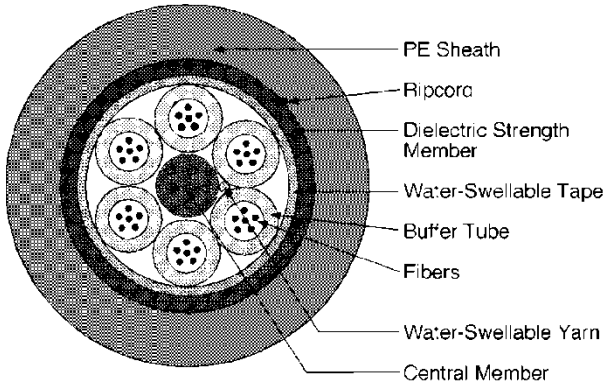


Figure 1

- The MDPE jacket material shall be as defined by ASTM D1248, Type 2 Class C and Grades J4, E7, and E8.
- The jacket/sheath shall be free of holes, splits, and blisters.
- The cable jacket/sheath shall contain no metal elements and shall be of a consistent thickness.

SPECIFICATIONS

- Cable jackets shall be marked with the following:
  - Manufacturer's name;
  - Month and year of manufacture;
  - Sequential meter or foot markings;
  - A telecommunication handset symbol as required by Section 350G of the National Electrical Safety Code (NESC);
  - Fiber count;
  - Fiber type;
  - The actual length of the cable shall be within -0/+1% of the length markings.

- Cable jacket markings shall be white, with the exception that cable jackets containing one or more coextruded white stripes shall be printed in light blue. The height of the markings shall be approximately 2.5 mm. An option of switch back marking must be available on the outer jacket to facilitate mid-span access.
- If the initial cable jacket marking fails to meet the specified requirements (i.e. improper text, statement, color, legibility, or print interval), the cable may be remarked using a contrasting alternate color. The numbering sequence and a tag will be attached to both the outside end of the cable and to the reel to indicate the sequence of remarking. The preferred remarking color will be yellow, with the secondary choice blue.
- The maximum pulling tension shall be 2700 N (608 lbf) during installation (short term) and 890 N (200 lbf) installed (long term).
- The shipping, storage, and operating temperature range of the cable shall be -40 degrees Celsius to +70 degrees Celsius. The installation temperature range of the cable shall be -30 degrees Celsius to +70 degrees Celsius.

SPECIFICATIONS FOR GENERAL CABLE PERFORMANCE

- When tested in accordance with FOTP-3, "Procedure to Measure Temperature Cycling Effects on Optical Fibers, Optical Cable, and Other Passive Fiber Optic Components," the change in attenuation at extreme operational temperatures (-40 degrees Celsius and +70 degrees Celsius) shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.
- When tested in accordance with FOTP-82, "Fluid Penetration Test for Fluid-Blocked Fiber Optic Cable," a one meter length of ungauged cable shall withstand a one meter static head or equivalent continuous pressure of water for one hour without leakage through the open cable end.
- When tested in accordance with FOTP-81, "Compound Flow (Drip) Test for Filled Fiber Optic Cable," the cable shall exhibit no flow (drip or leak) of filling and/or flooding material.
- When tested in accordance with FOTP-41, "Compressive Loading Resistance of Fiber Optic Cable," the cable shall withstand a minimum compressive load of 220 N/cm (125 lbf/in) applied uniformly over the length of the sample. The 220 N/cm (125 lbf/in) load shall be applied at a rate of 2.5 mm (0.1 in) per minute. The load shall then be maintained for a period of one minute. The load shall then be decreased to 110 N/cm (63 lbf/in). Alternatively, it is acceptable to remove the 220 N/cm (125 lbf/in) load entirely and apply a 110 N/cm (63 lbf/in) load within five minutes at a rate of 2.5 mm (0.1 in) per minute. The 110 N/cm (63 lbf/in) shall then be maintained for a period of ten minutes. Attenuation measurements shall be performed before release of the 110 N/cm (63 lbf/in) load. The change in attenuation shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.
- When tested in accordance with FOTP-104, "Fiber Optic Cable Cyclic Flexing Test," the cable shall withstand 25 mechanical flexing cycles around a sheave diameter not greater than 20 times the cable diameter. The change in attenuation shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.
- When tested in accordance with FOTP-25, "Repeated Impact Test of Fiber Optic Cables and Cable Assemblies," except that the number of cycles shall be two at three locations along a one meter cable length and the impact energy shall be at least 4.4 Nm (in accordance with ICA S-87-640), the change in attenuation shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.

SPECIFICATIONS

- When tested in accordance with FOTP-33, "Fiber Optic Cable Tensile Loading and Bending Test," using a maximum mandrel and sheave diameter of 560 mm, the cable shall withstand a rated tensile load of 2670 N (670 lbf) and residual load of 30% of the rated installation load. The axial fiber strain shall be < 60% of the fiber proof level after completion of 60 minute conditioning and while the cable is under the rated installation load. The axial fiber strain shall be < 20% of the fiber proof level after completion of 10 minute conditioning and while the cable is under residual load. The change in attenuation at residual load and after load removal shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.

- When tested in accordance with FOTP-85, "Fiber Optic Cable Twist Test," a length of cable no greater than 2 meters shall withstand 10 cycles of mechanical twisting. The change in attenuation shall not exceed 0.15 dB/km at 1550 nm for single-mode cable, and 0.3 dB/km at 1300 nm for multimode fiber.

- When tested in accordance with FOTP-181, "Lightning Damage Susceptibility Test for Optic Cables with Metallic Components," the cable shall withstand a simulated lightning strike with a peak value of current pulse equal to 105 ka without loss of fiber continuity. A damped oscillatory test current shall be used with a maximum time-to-peak value of 15 us (which corresponds to a minimum frequency of 16.7 khz) and a maximum frequency of 30 khz. The time to half-value of the waveform envelope shall be from 40-70 us.
- When tested in accordance with FOTP-37, "Low or High Temperature Bend Test for Fiber Optic Cable," the cable shall withstand four full turns around a mandrel of < 20 times the cable diameter after conditioning for four hours at test temperature of -30 degrees Celsius and +60 degrees Celsius. Neither the inner nor outer surfaces of the jacket shall exhibit visible cracks, splits, tears, or other openings. The change in attenuation shall not exceed 0.3 dB/km at 1550 nm for single-mode cable, and 0.5 dB/km at 1300 nm for multimode fiber.

QUALITY ASSURANCE PROVISION

All cabled optical fibers greater than 1000 meters in length shall be 100% attenuation tested. The attenuation of each fiber shall be provided with each cable reel. The cable shall be ISO 9001 registered.

PACKAGING

- The completed cable shall be packaged for shipment on non-returnable wooden reels. Required cable lengths shall be stated in the purchase order.
- Top and bottom ends of cable shall be available for testing.
- Both ends of cable shall be sealed to prevent the ingress of moisture.
- Each reel shall have a weather resistant reel tag attached identifying the reel and cable.
- The reel tag shall have the following information:
    - Name of Manufacturer
    - Cable Number
    - Shipped Cable Length In Meters
    - Manufacturer Product Number
    - Date Cable Was Tested
    - Cable Length Markings:
        - A) Top (inside end of cable)
        - B) Bottom (outside end of cable)
    - Gross Weight
    - Job Order Number

SPECIFICATIONS

  - Customer Order Number
  - Manufacturer Order Number
  - Item Number
- Cable reel shall include the following on at least one flange:
  - Name of Manufacturer
  - Country Of Origin
  - Arrow Indicating Proper Direction Of Roll When Handling
  - Forklift Handling Illustration
  - "Do Not Ship Reel On Side"
  - "Do Not Lay Reel On Side"
- Each cable shall be accompanied by a Cable Data Sheet. The Cable Data Sheet shall include the following information:
  - Name of Manufacturer
  - Manufacturer Cable Number
  - Manufacturer Product Number
  - Factory Order Number
  - Customer Name
  - Alternate Customer
  - Customer Cable Number
  - Customer Purchase Order Number
  - Alternate Code
  - Mark for Information
  - Ordered Length
  - Maximum Billable Length
  - Actual Shipped Length
  - Measured Attenuation of Each Fiber (for lengths greater than 1000 meters)
  - Band Width Specification (where applicable)
- Manufacturer shall provide 24-hour technical assistance.

ON-SITE TESTING, TRAINING & TECHNICAL ASSISTANCE

- The cable manufacturer/supplier shall provide on-the-reel testing of each fiber cable. The supplier is required to test all fibers in each reel of cable on-site, prior to installation upon request by the City. This testing is for both continuity and attenuation. The tests shall be conducted at 850 Nm for multimode fibers and at 1310 Nm for single-mode fibers. The testing shall be performed by a qualified technician using an optical time domain reflectometer (OTDR) via a pigtail splice. The resultant OTDR trace(s) shall reflect overall length and attenuation expressed in dB/km. All test results shall meet or exceed factory supplied attenuation measurements for multimode fibers, and be within +/- 0.02 dB/km of factory supplied attenuation measurements for single-mode fibers. Hard copy OTDR traces for the testing shall be supplied by the supplier prior to installation of cables.

PLEASE CONTINUE READING THE NEXT PAGE

SPECIFICATIONS

Schedule 2 - SPECIFICATIONS FOR JUNCTION BOX ENCLOSURES

- Junction Boxes for traffic signal installation shall be in accordance with State of Alabama Department of Transportation (ALDOT) specifications.
- Junction Boxes shall be constructed of non-concrete plastic mortar reinforced with heavy weave fiberglass, and shall have a static load capacity of 20,000 psi, distributed over a 10 inch by 10 inch area at the center of the cover.
- Junction Boxes shall conform to AASHTO specification H10.
- Sizing will be 24'W x 36'L x 24"H and 13"x24"x12"
- Enclosures will be Tier 22 load rating. Driveway, parking lot, and off-roadway applications.
- Labeling to include Communications, Fiber Optics, Traffic Signals, or Lighting
- The City reserves the right to select any of the four (4) lids markings at the time of order. The quoted unit price shall remain the same regardless of the lid marking selected.
- Enclosure boxes furnished without the specified lid shall not be accepted.

Schedule 3 - SPECIFICATIONS FOR NEMA CONTROL CABINETS

Item 1: TS2 Type 1 Eight Phase Base Mount Cabinet

- (16) Load Switches
- (6) Flash Relays
- NEMA Flasher
- MMU2-16LEIP w/Ethernet Port & Cable
- TS2 Card Rack Assembly
- Cabinet Power Supply
- (3) BIU Modules
- Cabinet to include rear door compartment
- Generator plug with transfer switch
- Auto-Hand Switch with Cord for Switch compartment
- Otherwise meets NEMA & ALDOT Specifications
- Cabinet, exterior black in color, interior white in color

Item 2: TS2 Type 1 Eight Phase Pole Mount Cabinet

- (16) Load Switches
- (6) Flash Relays
- NEMA Flasher
- MMU2-16LEIP w/Ethernet Port & Cable
- TS2 Card Rack Assembly
- Cabinet Power Supply
- (3) BIU Modules
- Auto-Hand Switch with Cord for Switch compartment
- Otherwise meets NEMA & ALDOT Specifications
- Cabinet, exterior black in color, interior white in color

Schedule 4 - SPECIFICATIONS FOR STREETLIGHT POLES & TRANSFORMER BASES

- 47 ft. Aluminum streetlight pole w/TB1-17 Transformer Base, hardware w/18-inch side mount Luminaire Arm (Complete Assembly)
- Transformer Base (replacement) per Spec TB1-17
- Transformer Base (replacement) per Spec TB2-17
- Transformer Base (replacement) per Spec TB3-17

SPECIFICATIONS

Schedule 5 - SPECIFICATIONS FOR CAMERA SUPPLIES

No Equivalents – Brand/Manufacturer Specific: For this Schedule, the brand names, manufacturers, model numbers, and/or products specified are mandatory requirements and are not descriptive references. Equivalent, alternate, substitute or equal products will not be considered. Bidders must provide the exact item(s) specified. Any bid offering a different manufacturer, brand, model or substitute product for this Schedule will be considered non-responsive for this Schedule.

Camera Cabinet

- Signal Engineering Co. (SECO) 16x16x16 cabinet, ITS, Alabama, Thermostat, Backplate, Fan, Square D Suppressor SDSA 1175, Terminal Block, Louvers on 2 Sides, Hub hole on bottom, 2 pole mount brackets on back

Schedule 6 - SPECIFICATIONS FOR OUTDOOR LUMINAIRE

No Equivalents – Specified Items Only: For this Schedule, line items expressly identified as "No Equivalents" are restricted to the brand, manufacturer, and model number specified. For these designated items, equivalent, alternate, substitute or equal products will not be considered. All other line items in this Schedule remain subject to the provisions detailed in Special Conditions, Brand References & Equivalents.

- Phillips Lumec RFL-145W64LED4K-G2-R3M-HVU-DMG-NRC-GY3 480V Luminaire, No Equivalents
- Philips Lumec RFL-145W64LED4k-G2-R3M-UNV-DMG-NRC-GY3 120-277V Luminaire, No Equivalents
- Satco S23168 Hi-Pro LED 277-480v (Mogul Base) (Replaces 400w Metal Halide), or equivalent
- KT-LED80PSHID-EX39-8CSB-D (Mogul Base) (Replaces 250w Metal Halide), or equivalent
- KT-LED36PSHID-E26-8CSB-D (Medium Base) (Replaces 150w Metal Halide), or equivalent
- West Liberty Decorative Arm Fitter (WLDF), Size - Quick Stem Mount (QSM), Color – Black, No Equivalents
- ESPL2 Teardrop Pedestrian Roadway LED Pendant, P40 77W:9,100 lumens, 40K 4000 CCT, MVOLT Auto-sensing voltage (120 thru 277V) 50/60 HZ, QSM Quick lock stem mount, TG4 Teardrop Glass Asymmetric, color – black, No Equivalents
- ESPL3 Teardrop Large Roadway LED Pendant, Esplanade housings, P50S standard housing 173W, 40K 4000 series CCT, MVOLT Auto-sensing voltage (120 thru 277) 50/60 HZ, Teardrop glass & door Type 3 application, QSM Quick lock stem mount, Color – Black, No Equivalents

Schedule 7 - SPECIFICATIONS FOR LED TRAFFIC SIGNAL LAMPS

- 12" LED Red Traffic Lamp w/5-Yr Warranty - LEOTEK IL6-P3 Series
- 12" LED Yellow Traffic Lamp w/5-Yr. Warranty - LEOTEK IL6-P3 Series
- 12" LED Green Traffic Lamp w/5-Yr. Warranty - LEOTEK IL6-P3 Series
- 12" LED Red Arrow Traffic Lamp w/5-Yr Warranty - LEOTEK IL6-P3 Series
- 12" LED Yellow Arrow Traffic Lamp w/5-Yr Warranty - LEOTEK IL6-P3 Series
- 12" LED Green Arrow Traffic Lamp w/5-Yr Warranty - LEOTEK IL6-P3 Series

Schedule 8 - SPECIFICATIONS FOR PEDESTRIAN SIGNALS & SUPPLIES

- 18" Pedestrian Signal
  - LED w/Countdown Feature
  - Clamshell Mount Included
  - Meets ALDOT Specs
  - City Will Order Left or Right, Black or Yellow
- 18" Pedestrian Signal Retrofit
  - LED w/ Countdown Feature
- BDL3-X Bulldog III Pedestrian Push Button, Complete w/Cup
  - Pressure Activated
  - In both Black and Yellow Colors

SPECIFICATIONS

Schedule 9 - SPECIFICATIONS FOR TRAFICAM SYSTEM COMPONENTS

Authorized Dealer Requirement: The Bidder must be a current manufacturer authorized distributor, dealer, or reseller for the products offered under this Schedule. Manufacturer authorization documentation must be submitted with the bid response in accordance with the Authorized Dealers/Resellers provision in the Special Conditions.

No Equivalents – Brand/Manufacturer Specific: For this Schedule, the brand names, manufacturers, model numbers, and/or products specified are mandatory requirements and are not descriptive references. Equivalent, alternate, substitute or equal products will not be considered. Bidders must provide the exact item(s) specified. Any bid offering a different manufacturer, brand, model or substitute product for this Schedule will be considered non-responsive for this Schedule.

TrafiCam Camera, Narrow and Wide Angle

- 10-8000 Traficam 3 Wide Angle, No Equivalents
- 10-8005 Traficam 3 Narrow Angle, No Equivalents
- 10-7722 TI BPLE EDGE B & SIU, Interface, No Equivalents
- 10-7721 TI SL0054, No Equivalents
- 10-7320 FLIR PoE Interface, No Equivalents
- 4TI 4-Channel Termination Board p/n 725-176, No Equivalents
- Traficam Belden 9402 Cable No Equivalents

PLEASE CONTINUE READING THE NEXT PAGE

BID RESPONSE FORM

Instructions
Bidders may submit bids for one, multiple, or all Schedules listed.

The items listed in the Bid Response Form represent supplies commonly purchased by the City and are not intended to be exhaustive list of all items that may be purchased during the contract. Unit Bid Prices submitted for the listed items will serve as the basis for bid evaluation.

For any Schedule or line not being bid, Bidders shall enter "**N/B" (No Bid)** in the applicable Unit Bid Price field/column. Blank Unit Bid Price fields will be interpreted as No Bid.

Bid Pricing Requirements
All Unit Bid Prices shall:

- Be quoted in US dollars (USD) and shall not exceed two (2) decimal places. If a Bidder submits a Unit Bid Price containing more than two (2) decimal places, the City will truncate the price to two (2) decimal places, without rounding, for purposes of bid evaluation and award. The truncated price shall constitute the Bidder's Unit Bid Price for purposes of the resulting contract.
- Represent the price for one (1) unit of the Unit of Measure specified for the line item.
- Include all costs associated with furnishing and delivering the item to the City's designated delivery location, including but not limited to shipping, freight, delivery handling, transportation, fuel surcharges, packing, and any other applicable charges.
- Be entered as a single numeric unit price in the designated Unit Bid Price column.

The Unit Bid Price column shall contain only the price per specified UOM. Package totals, reel or spool totals, multiple prices, pricing ranges, and explanatory notes shall not be entered in the Unit Bid Price column.

No additional shipping, freight, or delivery charges shall be paid by the City.

Unit of Measure (UOM)
Each line item in the Bid Response Form identifies the required Unit of Measure (UOM). Bidders shall submit a single Unit Bid Price based on the UOM designated by the City, regardless of the manufacturer's standard packing or selling unit.

- **FT (Linear Foot):** The Unit Bid Price shall represent the price for one linear foot of wire/cable. Where no specific reel, spool or package length is specified, Bidders shall identify their standard packaging and any applicable minimum order quantities in the designated columns.
- **EA (Each):** The Unit Bid Price shall represent the price for one complete item as described in the specification and/or Bid Response Form. Where a specified package, box, reel or spool length is required the Unit Bid Price shall include the entire specified quantity. For example, an item described as a 1,000 foot box with UOM of EA shall be priced per complete 1,000 foot box, not per linear foot.

The City's designated UOM and product specifications control the bid. A Bidder's standard packaging and/or minimum order quantity does not change how the item must be priced or what product the City is requiring.

Single Offer Per Line Item
Bidders shall submit only one product, one standard packaging configuration, and one Unit Bid Price per line item.
Multiple product offerings, alternative packaging configurations, or other optional pricing for the same line item will not be considered. Multiple entries on the same line may result in the bid response for that line being deemed non-responsive.

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

BID RESPONSE FORM, CONTINUED

Standard Packaging
Bidders must submit Unit Bid Price according to the Unit of Measure (UOM) specified by the City, regardless of how the manufacturer packages or sells the product. Different manufacturers may package comparable products in different quantities. Bidders shall identify the standard packaging or selling unit for each line item in the designated column. *Examples* include Box of 25, Pack of 10, 500-foot spool. Where no specific packaging applies, Bidder shall indicate "None." A blank field will be interpreted as no specific packaging.

Minimum Order Quantities
Bidders shall identify any applicable minimum order quantities (MOQ) for each line in the designated column. Where no minimum order quantity applies, Bidder shall indicate with "None." A blank MOQ field will be interpreted as no minimum order requirement, regardless of what is entered into the Standard Packaging field. Any restrictions requiring purchases in specified quantities or increments shall be disclosed in the MOW column. Minimum order quantities may be considered during bid evaluation based on their impact on the City's anticipated purchasing needs and overall costs.

Example of Unit Pricing, Standard Packaging, and Minimum Order Quantities
***Example Only* – All information in the table below is illustrative and does not represent estimated or acceptable bid prices.**

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
1.1	Cabling Widget	FT	ABC Cabling	1,000 ft reel	None	$0.85
1.2	Cabling Widget (specified at 1000ft)	EA	ABCD Cabling	1,000 foot box	None	$1.00
1.3	Coupler Widget	EA	ABC Couplers	Packs of 50	50 Sold in pack of 50	$2.25

Reel, Spool, and Quantity Dependent Pricing
The City recognizes that that cable, wire, conduit, and similar products may be furnished in different reel, spool, or packaging configurations and that pricing may vary by configuration. Where a specific length or configuration is identified in the specification or Bid Response Form, Bidders shall base their Unit Bid Price on that stated requirement. Where no specific reel or spool length is required, Bidders shall identify the standard reel, spool or selling configuration upon which their Unit Bid Price is based.

Product Identification
For each line item bid, Bidders shall identify the manufacturer, brand, and model or part number of the product offered in the designated Bidder's Make/Model # in the Bid Response Form. Bidders shall offer only one product and one Unit Bid Price per line item. Multiple product offerings, alternate bids or optional pricing for the same line item will not be considered and deemed non-responsive for that line item. Products offered as equivalents must comply with the provisions in Special Conditions.

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

Bidder Company Name

Bidder Signature

BID RESPONSE FORM, CONTINUED

Schedule 1: Fiber Optic Supplies						
Line Item	**Part Description**	**UOM**	**Bidder's Make/Model #**	**Standard Packaging**	**Minimum Order Quantity**	**Unit Bid Price**
Corning Fast Access Fiber Cable						
1.1	288 Count - 288ZU4-T4722D20	FT				
1.2	144 Count - 144ZU4-T4722D20	FT				
1.3	48 Count - 048ZU4-T4F22D20	FT				
1.4	24 Count - 024ZU4-T4F22D20	FT				
1.5	12 Count - 012ZU4-T4F22D20	FT				
1.6	6 Count - 006E8F-31131-29	FT				
1.7	288 Count - 288ZH4-Y4F40A20	FT				
1.8	144 Count - 144ZH4-Y4F40A20	FT				
AFL MicroCore Fiber Cable						
1.9	288 Count with AFL Fiber - LM2889R6101NS	FT				
1.10	288 Count with Corning Fiber - LM288AZR6101NS	FT				
1.11	144 Count with AFL Fiber - LM1449O6101NS	FT				
1.12	144 Count with Corning Fiber - LM144AZO6101NS	FT				
Corning Fiber Cassette & Housings						
1.13	Corning 4 Unit Housing - CCH-04U	EA				
1.14	Corning 2 Unit Housing - CCH-02U	EA				
1.15	Corning 12 Fiber Cassette - CCH-CS12-A9-P00RE	EA				
1.16	Corning 24 Fiber Cassette - CCH-CS24-AE-P00RE	EA				

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
AFL Fiber Cassette & Housing						
1.17	AFL 6 Fiber Cassette - PM-L-06-ULC-0-S-01	EA				
1.18	AFL 12 Fiber Cassette - PM-L-12-ULC-0-S-01	EA				
1.19	AFL Single Cassette Housing - WME01E	EA				
1.20	AFL DinRail Kit - FM003388	EA				
Corning Splice Supplies						
1.21	Corning 144 Splice Case (SCF-6C28-01) with 6 Trays (SCF-ST-112). Pricing is EA for one complete assembly of case and trays.	EA				
1.22	Corning 72 Splice Case (SCF-6C22-HS-01) with 6 Trays (SCF-ST-048). Pricing is EA for one complete assembly of case and trays.	EA				
AFL Splice Supplies						
1.23	AFL Apex X-1 Splice Case (AX-1-B-L-3-4-1)	EA				
1.24	AFL Apex X-2 Splice Case (AX-2-B-L-6-6-1-B)	EA				
Corning Unicams						
1.25	Corning Single Mode LC Unicam - 95-200-99	EA				
1.26	Corning Heat Shrink 60 MM - 2806031-01	EA				

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

Bidder Company Name	
Bidder Signature	

BID RESPONSE FORM, CONTINUED

Schedule 2: Junction Box Enclosures						
Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
2.1	Quazite 24x36x24 (PG2436BA24) with Communications (PG2436HH0012), Fiber Optic (PG2436HH0021), Traffic Signals (PG2436HH0046), or Lighting (PG2436HH0029) Lid included (Tier 22). Pricing is EA for one complete assembly of box enclosure and one (1) compatible Tier 22 lid. Unit Pricing shall include both components.	EA				
2.2	Quazite 13x24x12 (PG1324BA12) with Communications (PG1324HH0012), Fiber Optic (PG1324HH0021), Traffic Signals (PG1324HH0046), or Lighting (PG1324HH0029) Lid included (Tier 22). Pricing is EA for one complete assembly of box enclosure and one (1) compatible Tier 22 lid. Unit Pricing shall include both components.	EA				

Schedule 3: NEMA Control Cabinets						
Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
3.1	TS2 Type 1 Eight Phase Base Mount Cabinet	EA				
3.2	TS2 Type 1 Eight Phase Pole Mount Cabinet	EA				

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

BID RESPONSE FORM, CONTINUED

Schedule 4: Street Light Poles & Transformer Bases						
Line Item	**Part Description**	**UOM**	**Bidder's Make/Model #**	**Standard Packaging**	**Minimum Order Quantity**	**Unit Bid Price**
4.1	47ft Aluminum streetlight pole w/TB1-17 Transformer Base, Hardware w/18" side mount Luminaire Arm (Complete Assembly)	EA				
4.2	Transformer Bases (replacement) per Specs TB1-17	EA				
4.3	Transformer Bases (replacement) per Specs TB2-17	EA				
4.4	Transformer Bases (replacement) per Specs TB3-17	EA				
Schedule 5: Camera Supplies						
Line Item	**Part Description**	**UOM**	**Bidder's Make/Model #**	**Standard Packaging**	**Minimum Order Quantity**	**Unit Bid Price**
Radios						
5.1	Ubiquiti AP (Rocket) - NS-5AC	EA				
5.2	Ubiquiti Nanostation - LOCO5AC	EA				
5.3	Ubiquiti POE - POE-48-24W-G	EA				
Switches						
5.4	Antaira 90w POE Output 12 port switch – LMP-1204G-SFP-bt-T	EA				
5.5	Antaira 30W POE Output 18 port switch – LMP-1802G-SFP-T	EA				
5.6	Antaira Power Supply with DIN Rail Bracket – SDR-240-48	EA				

Bidder Company Name

Bidder Signature

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
Bore Pipe						
5.7	Duraline 2 inch, SDR 13.5, Pinpoint with 18awg tracer wire, Silicore ULF lining, - n/a. Orange, Footage markers on pipe	FT				
5.8	Duraline 3 inch, SDR 13.5, Pinpoint with 18awg tracer wire, Silicore ULF lining, - n/a. Orange, Footage markers on pipe	FT				
5.9	Duraline HDPE Microduct 16/12 mm, Silicore lining, Blue, Footage markers on pipe	FT				
5.10	Duraline HDPE Microduct 18/14 mm, Silicore lining, Blue, Footage markers on pipe	FT				
5.11	Duraline Micro Coupler 16/12 part 20001517	EA				
5.12	Duraline Micro Coupler 18/14 part 20001518	EA				
5.13	Duraline End Cap 16mm part 20001908	EA				
5.14	Duraline End Cap 18mm part 20001485	EA				
5.15	Duraline 2” Clear-Lock Coupler part 20005097	EA				

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
Camera Cabinet						
5.16	Signal Engineering Co. (SECO) 16x16x16 cabinet, ITS, Alabama, Thermostat, - SA-CAB_161616-S-ALIT. Backplate, Fan, Square D Supressor SDSA 1175, Terminal Block, Louvers on 2 - Sides, Hub hole on bottom, 2 pole mount brackets on back - STAINLESS	EA				
5.17	Signal Engineering Co. (SECO) 16x16x16 cabinet, ITS, Alabama, Thermostat, - SA-CAB_161616-S-ALIT. Backplate, Fan, Square D Supressor SDSA 1175, Terminal Block, Louvers on 2 - Sides, Hub hole on bottom, 2 pole mount brackets on back - PAINTED BLACK	EA				

Schedule 6: Outdoor Luminaires

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
6.1	Phillips Lumec RFL-145W64LED4K-G2-R3M-HVU-DMG-NRC-GY3 480V Luminaire	EA				
6.2	Philips Lumec RFL-145W64LED4k-G2-R3M-UNV-DMG-NRC-GY3 120-277V Luminaire	EA				
6.3	Satco S23168 Hi-Pro LED 277-480v (Mogul Base)	EA				
6.4	KT-LED80PSHID-EX39-8CSB-D (Mogul Base)	EA				

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
6.5	KT-LED36PSHID-E26-8CSB-D (Medium Base)	EA				
6.6	West Liberty Decorative Arm Fitter (WLDF), Size - Quick Stem Mount (QSM), Color – Black	EA				
6.7	ESPL2 Teardrop Pedestrian Roadway LED Pendant	EA				
6.8	ESPL3 Teardrop Large Roadway LED Pendant, Esplanade housings	EA				

Schedule 7: LED Traffic Signal Lamps

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
7.1	12” LED Red Traffic Lamp - LEOTEK IL6-P3 Series	EA				
7.2	12” LED Yellow Traffic Lamp - LEOTEK IL6-P3 Series	EA				
7.3	12” LED Green Traffic Lamp - LEOTEK IL6-P3 Series	EA				
7.4	12” LED Red Arrow Traffic Lamp - LEOTEK IL6-P3 Series	EA				
7.5	12” LED Yellow Arrow Traffic Lamp - LEOTEK IL6-P3 Series	EA				
7.6	12” LED Green Arrow Traffic Lamp - LEOTEK IL6-P3 Series	EA				

Schedule 8: Pedestrian Signals & Supplies

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
8.1	18" Pedestrian Signal	EA				
8.2	18" Pedestrian Signal Retrofit	EA				

Bidder Company Name

Bidder Signature

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
8.3	BDL3-X Bulldog III Pedestrian Push Button, Complete w/Cup	EA				

Schedule 9: Traficam System Components

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
9.1	10-8000 Traficam 3 Wide Angle	EA				
9.2	10-8005 Traficam 3 Narrow Angle	EA				
9.3	10-7722 TI BPLE EDGE B & SIU, Interface	EA				
9.4	10-7721 TI SL0054	EA				
9.5	10-7320 FLIR PoE Interface	EA				
9.6	4TI 4-Channel Termination Board p/n 725-176	EA				
9.7	Traficam Belden 9402 Cable	FT				

Schedule 10: Miscellaneous

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
10.1	12 Gauge USE Copper Stranded Wire	FT				
10.2	Signal Cable, IMSA 20-1, #14, 7 Conductor, Stranded Copper	FT				
10.3	Signal Cable, IMSA 20-1, #14, 10 Conductor, Stranded Copper	FT				
10.4	3/8” Guy Cable, Galvanized	FT				
10.5	Lead-in Cable, IMSA 50-2, #14	FT				
10.6	# 6 THHN / THWN Stranded Copper	FT				
10.7	# 8 THHN / THWN Stranded Copper	FT				

Bidder Company Name

Bidder Signature

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
10.8	18TG Orbit 2.0 Standard Unit, Sign Hanger 2.0, Color Black	EA				
10.9	EDI Oracle S1E Series - Single Channel Shelf Mount Detector, Must Meet Current	EA				
10.10	Card Rack EDI Oracle 4H Series - Quad Channel 1/2 Width	EA				
10.11	#16 -3 conductor Tray Cable	FT				
10.12	L-FSE LEB-JYC-S 30A 600V In-Line WP Breakaway Fuse Holder	EA				
10.13	Buss KTK 5 Amp 600 Volt Midget Fuses	EA				
10.14	Astro Bracket Stellar Clamp Kit AS-3009-84-PNC w/AB-0512 Cable	EA				
10.15	EDI PS175B Card Rack Power Supply	EA				
10.16	MMU2-16LEip w/Ethernet Port Smart Monitor	EA				
10.17	418AXXL-120VAC, 418 Series Relay, Single Pole Hybrid, w/LED indicator	EA				
10.18	EDI BIU-700 Bus Interface Unit	EA				
10.19	EDI PS 250 Cabinet Power Supply	EA				

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

Bidder Company Name

Bidder Signature

BID RESPONSE FORM, CONTINUED

Line Item	Part Description	UOM	Bidder's Make/Model #	Standard Packaging	Minimum Order Quantity	Unit Bid Price
10.20	Traffic Signal Housing (Housing w/No Lens, Reflectors, Etc.), 3 Section, Including Visors & Span Wire Hanger. Must Be ALDOT Approved. Black or Yellow	EA				
10.21	One Case - Traffic Loop Sealant, Sausage Tube, Must Be ALDOT Approved	EA				
10.22	EK4436SM Intermatic 120-277v Stem Mount Photo Control	EA				
10.23	Tork 5000 Series 2421 Photocontrol Receptacle 120-480vac	EA				
10.24	W0408ML1125 Type 3R 120/240v Siemens 4 circuit Outdoor Load Center	EA				
10.25	IPID4-3 Polaris Lug Splice Kit	EA				
10.26	1” Aluminum Conduit - 10' Foot Stick	EA				
10.27	Spool of Polyester Mule Tape 5/8" 1800lb Rated, 3000' unit	EA				
10.28	Vertical Cable Outdoor CAT5E Ethernet 1000' Box (059-486/CMXT)	EA				
10.29	Prysmian Cable GenSPEED 6 max Ethernet 1000' spool (8133867)	EA				

BID RESPONSE FORM CONTINUED TO THE NEXT PAGE

Bidder Company Name	
Bidder Signature	

BIDDER'S RESPONSE FORM

MESSAGE TO BIDDERS: Please review your bid documents for accuracy, completeness, required documentation, and necessary signatures before submitting. Please label the outer mailing/shipping package with the bid information as directed.

BIDDER INFORMATION			
Company Name		**Contact Name**	
Email Address		**Telephone Number**	
Physical Business Address		**Mailing Address for Payments**	
Authorized Signature		**Payment Terms**	

Awarded bidder(s) will be required to obtain a City of Tuscaloosa business license in order to provide goods and/or services in response to this bid and subsequent contract(s). Inquiries regarding business license requirements should be directed to the City's Revenue & Financial Services Division at (205) 248-5200. Failure to obtain and maintain the required city business license(s) may result in rescinding of bid award and contract termination.

Note: By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom.

FAILURE TO COMPLETE ALL OF THE ABOVE WITH AN AUTHORIZED SIGNATURE MAY SUBJECT BID TO REJECTION.