



May 26, 2020

Gentlemen:

The City of Moultrie on behalf of the Downtown Development Authority will receive sealed proposals in the office of the Director of Purchasing, located at 1108 1ST Street NE, Moultrie, Georgia 31768 (or mail to P.O. Box 3368, Moultrie, Georgia 31776) until 10:00 A.M. June 29, 2020 at which time all proposals will be publicly opened and read aloud for "FIBER OPTIC BACKBONE, SURVEILLANCE CAMERAS & WIRELESS OVERLAY PROJECT".

Proposals should be submitted in a sealed envelope plainly marked on the outside "FIBER OPTIC BACKBONE, SURVEILLANCE CAMERAS & WIRELESS OVERLAY PROJECT" -(PURCHASING DEPT.) and returned to this office on or before the above mentioned date and time. Proposals received after this date and time will not be considered. All proposals must be submitted FOB Moultrie, Georgia.

A mandatory pre-bid conference will be held on June 8, 2020 at 10:00 A.M. at City Hall located at 21-1ST Street NE Moultrie, GA 31768. If you have any questions, contact the Purchasing Dept. at 229-890-5425.

The City of Moultrie reserves the right to accept or reject any and all proposals or to make any other decisions they deem to be in the best interest of the City.

We look forward to receiving your proposal.

Sincerely,

A handwritten signature in blue ink, appearing to read "Daniel Lawson", is written over a horizontal line.

Daniel Lawson

Assistant Director of Purchasing/Airport Operations

Request for Quote

Fiber Optic Backbone

Surveillance Cameras

Wireless Overlay

City of Moultrie, Georgia

Section 1 – General Information

A. Objective

The purpose of this request for quote is for the installation of a multi-use fiber optic backbone for the downtown area of the City of Moultrie, Georgia. This infrastructure will encompass approximately 6,500 feet of 48 strand single mode fiber. Approximately 80% of this infrastructure will be aerial with approximately 20% (300') in underground conduit.

This fiber infrastructure will be basis for the creation of a municipal wireless overlay of the 9 block area of Downtown Moultrie. This wireless overlay will primarily support the transmission of video data for the IP security camera and CCTV portion of this RFQ and the provisioning of wireless Internet access for citizens and visitors of Downtown Moultrie.

B. Project description and purpose

The city of Moultrie currently leases fiber for its municipal network from the South Georgia Governmental Services Authority for the purposes of Internet access, data transmission between facilities and VOIP services. To better serve the citizens and merchants of Moultrie and to offer further quality of life enhancements to the downtown area, The City of Moultrie

Development office, the Downtown Development Authority along with Downtown Moultrie Tomorrow began investigating the possibility of installing CCTV and security camera systems to the downtown area. Looking for solutions to add multiple network connected camera systems the city investigated coaxial, Ethernet and cloud based connectivity to the existing municipal leased network. These solutions were prohibitively expensive with an extremely long ROI.

After much research, it was determined that with existing monies, it was feasible for the City of Moultrie to install a fiber optic backbone that would allow not only for the connectivity of CCTV / Security cameras but also provide the capabilities supplying free wireless Internet access for the citizens and visitors along with a wireless or fiber based public address / ambient speaker system.

C. Evaluation standards

The RFQ process identifies the lowest price responsive and responsible bidder(s) for contract award; provided, however, no contract award will be made to the lowest cost if the City determines the low cost bidder cannot clearly perform the contract requirements;

- a. The bids of all responsible suppliers will be evaluated on a pass / fail basis to determine each supplier's compliance with the administrative requirements and all minimum product specifications and performance requirements. Of those bids, meeting such requirements, the lowest priced (or most advantageous to the City) will be selected as the bid winner.
- b. Vendor shall provide payment schedule per phase of completed work along with project timeline, must meet all state payment regulations.

D. Mandatory Pre-Bid Conference

A mandatory pre-bid conference will be held:

WHEN: June 8, 2020 at 10:00 am

WHERE: City Hall, Moultrie Georgia, City Council Chambers, 21 1st Street NE, Moultrie Georgia 31768

This meeting is mandatory for all proposer or bidders. It will consist of a complete project overview, walkthrough of the downtown area and follow-up question and answer period. Members of the City of Moultrie IT staff, Engineering, and Utilities, and Purchasing department will be in attendance to answer questions. **No proposals will be accepted from vendors who do not attend this mandatory pre-bid conference.**

E. Stipulations

- a. Prior to beginning any work, the contractor will secure motor vehicle and general liability insurance in minimum amounts of \$1,000,000 per occurrence and \$2,000,000 aggregate listing the City of Moultrie as an insured or additional named insured on each in a form satisfactory to the City. The contractor will also maintain worker's compensation insurance. The contractor will provide insurance certificates to the City.
- b. The contractor must submit a complete E-Verify form with their bid for their bid to be accepted.
- c. Once the bid has been awarded, it will be the responsibility of the bidder to supply the City of Moultrie with a contract that meets all State regulations, whether establishing a one-time purchase or establishing a multi-year agreement.

Section 2 – Detailed specifications

A. General Requirements

- a. All work performed by the Contractor shall be in accordance to the City's specifications and all applicable standards including but not limited to the following:
ANSI, ATIS, ASTM, BICSI, EIA, TIA, IEEE, OSHA, NEMA, NESC, NFPA, UL, and any other applicable industry standards

All vendors are required to have BICSI certification in cabling installation, at a minimum.

- b. All traffic control needed to perform any and / or all portions of the work is the responsibility of the contractor. The contractor must consult with the city prior to any traffic control
- c. Any damage to and not limited to: landscaping, private property, roads, curbsides, gutters, sidewalk or existing utilities shall be repaired by the contractor or any of their sub-contractors immediately and at no cost to the city
- d. The contractor shall confine work to right of way property at all times. At no time shall the contractor enter private property or perform any work not authorized by the City of Moultrie.
- e. The contractor is responsible for requesting locates of all underground services in accordance to Georgia Code O.C.G.A Title 25 Chapter 9
- f. The contractor will provide experienced and licensed installers who are licensed to install Corning fiber material
- g. The contractor is required to facilitate inspections of work with the City of Moultrie and the cities designated representatives from IT, Engineering and Utilities throughout the installation process
- h. When construction is completed, the contractor shall perform continuity testing of optical fibers using OTDR and industry standards for testing.
- i. The contractor shall install necessary lighting protection in accordance with aforementioned standards
- j. The contractor must ensure adequate clearance exists between proposed fiber build and other utilities, ground, rail, roads and water. At a minimum, the contractor is required to build conforming to NESC codes
- k. Any construction changes must be pre-approved by the City of Moultrie before commencing
- l. If deficiencies and / or non-compliance issues are discovered by the City of Moultrie or the cities representative(s) the contractor is responsible for the correction
- m. The contractor is responsible for all job site cleanup and for removal of all spend fiber reels and other material used during construction.

- n. The contractor is responsible for the restoration of the work areas including landscaping, to its original condition after work is completed. Surrounding areas must be filled, compacted and leveled. Bricks, pavers, curbing and concrete must be restored to original condition by city standards. If work cannot be completed due to unseasonal conditions, the work must be completed within a 3 month warrantied time period. Payment during this time period will be negotiated on a per project basis.

B. Cable pulling

- a. Any underground cable shall be installed with a locatable conductor in conduit unless conduit is already present.
- b. Cable shall be installed in such a way that the optical and mechanical characteristics of the fiber are not degraded.
- c. The contractor must comply with the manufacturers recommended installation temperature, pulling tension and bend radius.
- d. Cables must not violate the minimum bend radius or the maximum tension, both during and after installation. Corner rollers if used, must not have radii less than the minimum installation radius of the cable.
- e. Cables should be fed directly in by hand or over large diameter bends to prevent kinks, small bends, sharp edges and crossovers. Cable should also be fed out of pull boxes and above ground conduits in a fashion that minimizes bends. Sufficient slack should be left so that each cable may be trained to its final location free of stress and completely clear of hand hole openings.
- f. The pulling tension should be constantly monitored to assure that the maximum load is not exceeded.
- g. Only lubricants approved by the manufacturer are permitted. Wipe the exposed cable in a pull box, junction or cabinet clean of lubricant with a cloth after the cable has been installed.

- h. Fiber optic cable ends must be sealed to prevent the entry of water.

C. Cable splicing

- a. All splices must be fusion splices. Splices shall conform to ANSI/EIA/TIA standards.
- b. All fusion splices will have a maximum loss of <0.05 dB unidirectional loss using 1550 nm optical source, a maximum bi-directional loss of <0.15 dB using 1550 nm optical source.
- c. Similarly, a maximum loss of <0.3 dB unidirectional loss using 1310 nm optical source, and a maximum bi-directional loss of <0.20 dB loss using a 1310 nm optical source shall be achieved. Testing must use industry standard TIA-472D000B and Measurement method FOTP78.
- d. Each spliced fiber must be packaged in a heat shrinkable splice protection sleeve with strength member. The protection sleeve must cover the splice any bare fiber stripped of its coating. The use of RTV or silicone is strictly prohibited.

D. Labeling and Identification

- a. Identification labels must be supplied by the contractor and installed by the contractor or sub-contractor on the fiber in each hand hole and at every point of attachment on utility poles per city specification.
- b. Underground cabling and splices shall be marked according to industry standard

E. Aerial Construction requirements

- a. Grounding - The contractor is responsible to ensure proper grounding, bonding and that lightning protection is installed according to standards.
- b. Aerial cable slack requirements – 150' service loops are required every 1500 feet and should be addressed and stored properly. All slack shall be physically protected.
- c. Aerial cable lashing – all cabling will be lashed with 302 Stainless Steel Lashing Wire, .045" in Diameter, Tensile Strength 95,000 - 125,000 PSI
- d. Head end service loop – Provide 250' service loop at head end termination point.

Section 3 – Warranty

The contractor shall provide a 6-month labor warranty on services performed. Listed equipment should be covered under the manufacturer's warranty. Service response should be as follows:

- a. Major failure: 6 hours (Catastrophic failure of >85% of infrastructure)
- b. Critical issue: 1 days (Failure of 40% - 84% of infrastructure)
- c. Minor issue: 4 days (Failure of < 39% of infrastructure)

Section 4 – E-Verify Compliance

All bidders must supply a completed affidavit for E-Verify under O.C.G.A 13-10-91(b)(1) (see attached Contractor Affidavit.)

Appendices

Appendix A: Fiber specifications

It will be the vendor's responsibility to provide a complete, functional network based on specifications listed.

The City of Moultrie will provide all necessary power connections and supplies city owned utility poles. Pole attachments will be waived.

Fiber specifications:

- a. Fiber will originate at 3 Main St NW Moultrie GA. Fiber will proceed from origination point to terminus at E. Central Ave and 2nd St. NE and terminus at 2nd St SE and 2nd Ave SE. (Please see attachment A. for fiber path. Please see attachment B. for city owned utility pole locations.)
- b. A minimum of 6, 4x4 NEMA breakout boxes shall be installed at designated locations along fiber path to house patch panels, POE switches, UPS's and any other equipment necessary for connectivity. (See attachment A for fiber route and attachment B for city owned utility poles.)
- c. All fiber shall be Corning ADSS 48 strand single mode OS2.
- d. All fiber racks, connectors, connector panels, housings, fan out kits, adapters, and patch cables shall be Corning brand

- e. All switches shall be industrial PoE+ managed Ethernet with a minimum capacity of 6x 10/100 TX and 2x GE fiber uplink ports

Appendix B: Wireless Overlay specifications

It will be the vendor's responsibility to provide a complete, functional network based on specifications listed.

The City of Moultrie will provide all necessary power connections and supplies city owned utility poles. Pole attachments will be waived.

Wireless Overlay specifications:

- a. Vendor shall install adequate number of 802.11ax Wireless 6 access points, which will provide adequate coverage of the nine block downtown area of the City of Moultrie interior to fiber infrastructure. Vendor will perform a pre and post install survey to ensure adequate wireless coverage for the purpose of transmission of video, Internet and Intranet access for citizens and visitors.
- b. All access points should allow for intensive multimedia streaming such as 4K video transmissions.
- c. Access points should have allow for daisy chaining devices such as IP cameras or another AP via a POE port.
- d. Access points should operate in 5GHz and 2.4 GHz ranges.

Appendix C: IP video Cameras

It will be the vendor's responsibility to provide a complete, functional solution based on specifications listed.

The City of Moultrie will provide all necessary power connections and supplies city owned utility poles. Pole attachments will be waived.

IP Video Camera Specification:

- a. Vendor shall install 4 outdoor rated, 180° viewing angle cameras on 4 city owned light poles on the East, West, North and South sides of the Colquitt County courthouse with a minimum resolution of 720p. These cameras should have the capability of covering the associated interior areas of the adjacent merchant buildings of the courthouse. Point, tilt and zoom functions are not mandatory for this solution but will be acceptable based on the vendors best solution.
- b. Vendor shall provide a Windows server 2019 based video storage solution, software, and licensing that will allow for storage of 720p resolution of 4 installed cameras for a minimum of 30 days. Solution should be expandable for storage of a minimum of 20 cameras at 720p resolution for 30 days. Solution should allow for web based, role based access via Windows, Android, Apple iOS devices, and Apple MacOS devices.
- c. Vendor shall provide camera solutions that will allow for future coverage of individual merchant storefronts, side streets and parking lots to be discussed at the mandatory pre-bid conference.

d. Vendor awarded contract for cameral installation will be used for upcoming camera projects throughout the City over the next 24 to 36 months.

Material Lists

Please provide Bill of Materials lists as indicated below for each project.

1. Manufacturer
2. Part number
3. Part Description
4. Quantity
5. Unit measurement
6. Unit price

Project implementation

Please provide a detailed project plan and implementation timeline for each project phase, that will include estimated begin and end dates, project milestones, list of subcontractors, and any other accommodations necessary for project completion.

Warranty specification

Please provide details on each manufacturer's warranty for items listed in each project. Please include any extended warranty information and steps needed to activate or authorize warranties. Please provide vendor warranty information including response times, costs, etc.

References

Please provide number of years' vendors company has been in business.

Please provide a list of at least 4 references of municipalities in which you have performed the same or similar projects.

Appendix A

Moultrie Fiber Infrastructure

Legend

- fiber Termination point
- Overhead Fiber
- Underground Fiber



500 ft

Google Earth

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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 (name of public employer) 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

Name of Project

Name of Public Employer

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

Executed on _____, _____, 201__ 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 _____, 201__

NOTARY PUBLIC

My Commission Expires:

CITY OF MOULTRIE REQUEST FOR PROPOSAL

Fiber Optic Backbone, Surveillance Cameras & Wireless Overlay Project
June 29, 2020; 10:00 A.M.

Proposal #20-12

ITEM	QTY.	DESCRIPTION	TOTAL PRICE
1	1	Fiber Optic Backbone Per COM Specifications	\$ _____
	1	Surveillance Cameras Per COM Specifications	\$ _____
	1	Wireless Overlay Per COM Specifications	\$ _____

**Please Fill Out And Return Attached E-Verify
Affavdit**

COMPANY: _____

ADDRESS: _____

NAME: _____

SIGNATURE: _____

TITLE: _____

PHONE NUMBER: _____

FAX NUMBER: _____

EMAIL: _____

DATE: _____

DELIVERY DATE: _____

FOB MOULTRIE, GEORGIA