Request for Statements of Qualifications #52109 Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services

IN ACCORDANCE WITH ORDINANCE #5366 COMMONLY REFERRED TO AS THE SMALL BUSINESS ENTERPRISE PROGRAM (SBE) DESIGNED TO PROMOTE THE ECONOMIC WELFARE OF THE SMALL BUSINESSES LOCATED WITHIN THE CITY OF MEMPHIS THIS SOLICITATION HAS BEEN DESIGNATED AS A SHELTERED MARKET PROCUREMENT OPPORTUNITY, WHICH WILL ONLY BE OPEN FOR COMPETITION BY AND BETWEEN SBE COMPANIES. ONLY VENDORS CERTIFIED BY THE UNIFORM CERTIFICATION AGENCY AND APPROVED BY THE CITY OF MEMPHIS AS A SMALL BUSINESS ENTERPRISE MAY BID ON THIS PROJECT. COPIES OF THE ORDINANCE ARE POSTED ON THE CITY OF MEMPHIS WEBSITE (www.memphistn.gov).

<u>PURPOSE</u>: The City of Memphis extends this invitation to vendors interested in submitting their Statements of Qualifications (SOQ's) for inclusion in the Vendor Pool for Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services. The purpose of this RFQ is to identify vendors who can provide Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services on an as-and-when-required basis to support City of Memphis divisions. Term of the agreement shall be determined by negotiation, based upon answers provided and the negotiable deliverable responses.

The Information Technology Division (ITD) of the City provides and maintains point to point connectivity for voice, video, and data for local and wide area networks at several points throughout the City. These locations include emergency services and public safety installations, such as Police and Fire stations, where ITD's response to any system interruption is critical. In addition, many locations present a variety of configuration requirements. In addition, the successful bidder or bidders will be required to provide first time consultation on any services being performed. The City's fiber owned cable is listed in Exhibit 4.

<u>DUE DATE:</u> Statements of Qualifications will be received No Later Than 12:00 noon local time on Wednesday, **JANUARY 13, 2021.**

<u>SUBMITTAL REQUIREMENTS:</u> Proposer shall submit, in a sealed packet, one (1) original (clearly marked as such on the document as "ORIGINAL") and five (5) complete printed copies of its SOQ on or before **JANUARY 13, 2021**, at 12:00 noon CT, to the addressee provided below:

USPS (or other common carrier)
City of Memphis
Purchasing Department, Room 354
125 N. Main Street
Memphis, TN 38103

Hand Delivery
City of Memphis
Main Lobby – Bid Drop Box
125 N. Main Street
Memphis, TN 38103

The label should identify the contents as:

Your company name & address.

Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services

RFQ # 52109

SOQ'S SUBMITTED AFTER THE DEADLINE OR WHICH STATE THAT INFORMATION WILL BE PROVIDED 'AT A LATER DATE', OR WHICH ARE OTHERWISE INCOMPLETE OR FAIL TO COMPLY WITH THE REQUIREMENTS SET FORTH IN THIS RFQ WILL BE DISQUALIFIED FROM PARTICIPATION IN THIS RFQ PROCESS.

Submittals may not be amended after the submission deadline.

Notwithstanding any legends on the SOQ's or any other statements to the contrary, all materials submitted in connection with proposer's response to this RFQ will become the property of the city and may be returned only at the City's option.

SCOPE OF WORK

The City of Memphis ("City") is developing a "Vendor Pool" contract(s) to facilitate the procurement of Vendor Pool for Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services for all City Divisions. The intent of this RFQ is to develop a convenience contract with multiple Vendors who can provide a wide range of Vendor Pool for Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services.

Vendors must submit an acceptable and qualified response to this RFQ to become eligible for this contract. Multiple Vendors will be selected for the eligible Vendor Pool.

The selected pool of Vendors will be contractually responsible for all services denoted in the document.

Vendors submitting an acceptable and qualified response to this RFQ as determined by the City of Memphis' IT Department will be afforded the ability to participate in the quote process when a need to procure equipment/services is identified. A Request for Quote (via email) will be sent to the qualifying Pool of Vendors. Once the vendors have responded an award will be made by issuance of an order (via email).

The objective of this RFQ is to provide City of Memphis Divisions the ability to purchase Products and Services to satisfy their needs as described in Exhibit 2-SCOPE OF WORK.

Exhibit 2 includes types of work and types of products to be purchased as a result of obtaining a contract through this RFQ process. Exhibit 3 is for informational purposes only, and additional services/items may be required that are not listed in this Exhibit.

<u>AWARD OF WORK ORDERS:</u> The responding vendor with the **lowest and best** overall price quote submitted for each Request for Quote will be awarded a Work Order/Purchase Order for the specific item(s) listed in the Request for Quote.

<u>PERIOD OF PERFORMANCE:</u> The period of performance of this contract is one-year from date of award with three (3) one-year extension options. The City of Memphis will have the option each year to extend based upon mutual consent of the parties and contingent upon the availability of funding and successful contract performance of the vendor.

MINIMUM QUALIFICATIONS: Vendor submittal must include the following information, in the order listed below:

Vendor must provide a brief company description, history and financial status. In addition, Vendor should submit the following information:

- Name. The name under which the bidder is licensed to do business.
- **2.** Address. The address of the bidder's headquarters office.
- **3. Local Address.** The address of the bidder's local office responsible for the proposed work, if different from the headquarters office.
- **4. Local Officers.** Names, titles and telephone numbers of local officers or representatives of the bidder.
- **5. Years of Local Service Experience.** The number of years the bidder has actively participated in work in Shelby County and its neighboring counties similar to that described in this RFP Section 1.1 Overview of Work.
- **6. Size of Staff.** The number of bidder employees: internationally, nationally and locally. Information must include the total number of employees in Shelby County and its neighboring counties; in particular, the number of technical and support staff presently supporting similar service, their qualifications and length of service.
- **7. Record with the City.** Description of current and past bidder experience in delivering services to The City similar to those required under the contract.
- **8. Current Contract Obligations.** Existing Vendor contractual commitments of similar scope and priority and their estimated impact on the Vendor's ability to service this contract, if awarded.
- **9. Sample resumes of staff.** Sample resumes of staff that could be utilized to perform work for the City of Memphis.
- 10. Dun & Bradstreet Number or Tax ID Number.
- **11. Other.** Other general information, as determined by the Vendor to be of importance in evaluating the Vendor.

GENERAL CONDITIONS:

The following data is intended to form the basis for submission of proposals to provide Low Voltage and Inside Fiber Optic e-Cabling Services. This material contains general conditions for the procurement process, the scope of service requested, contract requirements, instructions for submissions of proposals, and submission forms that must be included in the proposal. The RFQ should be read in its entirety before preparing the proposal. All materials submitted pursuant to this RFQ shall become the property of the City of Memphis.

To the extent permitted by law, all documents pertaining to this RFQ shall be kept confidential, to the extent necessary for review, until the proposal evaluation is complete. No information about any submission of proposals shall be released until the process is complete, except to the members of the Evaluation Committee established by the City and other appropriate designated City staff. All information provided shall be considered by the Evaluation Committee in making a recommendation to enter into an agreement with the selected consultant.

If any addenda are issued to this Request for Qualifications, the Purchasing Division will post them to the City's website at www.memphistn.gov under RFP's & RFQ's. Submitting organizations are strongly encouraged to view this website often to see if addenda are posted. Failure of any proposer to receive such addendum or interpretation shall not relieve such Proposer from any obligation under his proposal as submitted. All addenda so issued shall become part of the Contract Documents.

The City of Memphis reserves the right to (a) accept or reject any and/or all submissions of proposals; (b) to waive irregularities, informalities, and technicalities; and (c) to accept any alternative submission of proposals presented which, in its opinion, would best serve the interests of the City. The City shall be the sole judge of the proposals, and the resulting negotiated agreement that is in its best interest, and its decision shall be final. The City also reserves the right to make such investigation as it deems necessary to determine the ability of any submitting entity to perform the work or service requested. Information the City deems necessary to make this determination shall be provided by the submitting entity. Such information may include, but is not limited to, current financial statements by an independent CPA, verification of availability of equipment and personnel, and past performance records.

All bills and invoices will be sent to the division requesting the product and/or service. Addresses (physical or email) to submit invoices will be provided for each individual product/service requested.

INSURANCE REQUIREMENTS:

If selected for contact award, the selected vendor(s) will be required to provide proof of insurance coverage as outlined in Exhibit 1 – INSURANCE REQUIREMENTS.

EXHIBIT 1

INSURANCE REQUIREMENTS FOR

OUTSIDE PLANT FIBER OPTIC / COPPER AND LOCATE / MAINTENANCE SERVICES CABLING RFP

The Company shall not commence any work under this contract until it has obtained and caused its subcontractors to procure and keep in force all insurance required. The Company shall require all subcontractors to carry insurance as outlined below, in case they are not protected by the policies carried by the Company. The Company is required to provide copies of the insurance policies upon request. The Company shall furnish the Risk Manager a Certificate of Insurance and/or policies attested by a duly authorized representative of the insurance carrier evidencing that the insurance required hereunder is in effect. All insurance companies must be acceptable to the City of Memphis and licensed in the state of Tennessee with a Best Insurance Rating of A and Class VII or better and authorized to do business in the state where the work is performed.

If any of the Insurance Requirements are non-renewed at the expiration dates, payment to the company may be withheld until those requirements have been met, or at the option of the City. The City may pay the renewal premiums and withhold such payments from any monies due the Company.

The Company shall indemnify, defend, save and hold harmless the City, its officers, employees, and agents, from and against any and all claims, demands, suits, actions, penalties, damages, settlements, costs, expenses, or other liabilities of any kind and character arising out of or in connection with the breach of this Agreement by Company, its employees, subcontractors, or agents, or any negligent act or omission of Company, its employees, subcontractors, or agents, which occurs pursuant to the performance of this Agreement, and this indemnification shall survive the expiration or earlier termination of this Agreement. The provisions of this paragraph shall not apply to any loss or damage caused solely by the acts, errors, or omissions of the City, its officers, employees and agents. Contracts for third party service providers should include indemnity provisions that protect the City from any liability arising out of the Company's loss of City's sensitive information.

Each certificate or policy shall require and state in writing the following clauses:

Company shall provide notice to the City within three (3) business days following receipt of any notice of cancellation or material change in Company's insurance policy from Company's insurer. Such notice shall be provided to City by registered mail, to the following addresses: City of Memphis

City of Memphis

Attn: Risk Management
170 N. Main. St., 5th Floor
Memphis, TN 38103
Attn: Purchasing Agent
125 North Main, Room 354
Memphis, TN 38103

The Certificate of Insurance shall state the following: "The City of Memphis, its officials, agents, employees and representatives shall be named as additional insured on all liability policies." The

additional insured endorsements shall be attached to the Certificate of Insurance and the Certificate of Insurance shall also state: "The additional insured endorsement is attached to the Certificate of Insurance."

WORKERS COMPENSATION:

The Company shall maintain in force Workers' Compensation coverage in accordance with the Statutory Requirements and Minimum Limits of the State of Tennessee and shall require all subcontractors to do likewise.

| Employ | yer's Liability | \$100,000 | Each Accident |
|--------|-----------------|-----------|---------------|
| | | | |

\$500,000 Disease-Policy Limit \$100,000 Disease-Each Employee

AUTOMOBILE LIABILITY:

Covering owned, non-owned, and hired vehicles with Minimum Limits of::

\$1,000,000 Each Occurrence – Combined Single Limits

COMMERCIAL GENERAL LIABILITY:

Commercial General Liability Insurance, including Premises and Operations, Contractual Liability, Independent Contractor's Liability, and Broad Form Property Damage Liability Coverage with Minimum Limits of:

| \$2,000,000 | General Aggregate |
|-------------|---|
| \$2,000,000 | Products-Completed Operations |
| \$1,000,000 | Personal and Advertising Injury |
| \$1,000,000 | Each Occurrence (Bodily Injury & Property Damage) |
| \$ 50,000 | Fire Damage any One Fire |
| \$ 5,000 | Medical Expense any One Person |

NOTE: XCU coverage should be INCLUDED and not EXCLUDED.

ERRORS & OMISSIONS / PROFESSIONAL LIABILITY:

The Company shall maintain such coverage for at least three (3) years from the termination or expiration of this agreement with Minimum Limits of:

\$2,000,000 Each Claim / \$2,000,000 Aggregate

POLLUTION LIABILITY (including Transportation Coverage) with Minimum Limits of:

\$2,000,000 Each Claim / \$2,000,000 Aggregate

UMBRELLA LIABLITY with Minimum Limits of:

\$ 2,000,000 Each Occurrence / \$2,000,000 Aggregate

NOTE: Suggest INLAND MARINE - INSTALLATION FLOATER be carried - coverage on property (usually equipment) being installed by a contractor.

PROPERTY INSURANCE:

The Company shall be responsible for maintaining any and all property insurance on their own equipment and shall require all subcontractors to do likewise. The Company shall require all sub-contractors to carry insurance as outlined above, in case they are not protected by the policies carried by the Company.

The Company is required to provide copies of the insurance policies upon request.

EXHIBIT 2

City of Memphis – Outside Plant Fiber Optic/Copper Cabling and Locate/Maintenance Services Scope of Work

The bidder or bidders will be required to provide all Outside Plant Fiber Optic/Copper and Locate/Maintenance services. This Section contains the functional, technical and support requirements for the desired solution. Where SAIC elects to execute a contract resulting from this RFP, the selected Vendor must have met the requirements set forth below for responding to this RFP.

Complete and Timely Installation. The Vendor will be solely responsible for complete and timely installation of all proposed cables and connectors. The Vendor must complete the job within the desired amount of time as specified upon receipt of a Purchase Order from the City unless the City agrees to extend this timeframe. The City reserves the right to bid out larger jobs as separate projects; those jobs must be timed with the City's notification and agreement.

Inside Cable Routing. All cable must be installed in J-Hooks rated for communications cabling as local codes require, with fiber optic cabling installed in innerduct. Where existing cable is exposed, the new cable will be installed neatly and will be routed using existing conduits, or where no conduits exist, pricing for installing conduits will be provided as part of the job specifications. Where cable is routed via the ceiling, the cable will be installed neatly beside the existing cable. Fiber optic cabling will be terminated with LC connectors at the termination point unless otherwise specified. Before the installation of any cable, including any fiber optic cable, a Cable Routing Plan will be submitted to the Information Technology Network/Telecom Group for approval.

Sites Left Clean. The Vendor will complete the installation by leaving the site "broom clean." On outside plant work, the Vendor will make all necessary repairs to any uprooted asphalt or grass where required.

Site Drawings. Updating the fiber owned cabling spreadsheet (see Exhibit 4) will be required when new outside fiber cable has been installed. This information will be submitted to Tennessee 811 in the proper format as well as entered into the Tennessee 811 GIS System. For outside fiber optic cable, a set of professional legible drawings is also required. Drawings should be accurately marked to indicate the following:

- Routing of fiber optic cable
 - Depth of cable (buried)
 - Location of man holes and pull-boxes (hand holes)
 - Location of each pole
 - Pole numbers
 - Location of riser poles
 - Span lengths
 - Suspension strand size for each fiber optic cable

- Types of fiber optic cables
- Location of aerial splice cases
- Location of slack loops (service loops)
- Separation in feet between fiber optic cable and foreign cables

Copper Telephone Feeder Cable Testing. Before the work is approved for payment, the Vendor will test all of the cable. All copper telephone feeder cables must be tested for continuity. The Vendor must provide test results in both hard copy and soft copy form.

Fiber Optic Testing. Upon completion of each fiber optic installation, the Vendor must test all multimode fiber at both the 850nm and 1300nm wavelengths and all single mode fiber at 1310nm and 1550nm wavelengths with an Anritsu CMA-4500 Optical Time-Domain Reflectometer (OTDR) or approved equal. All test results must be submitted in both hard and soft copy form along with two (2) copies of as built drawings of the fiber optic cabling layout. Attenuation should be less than 2dB per strand unless the lengths of fiber will allow a greater loss according to the ANSI/EIA/TIA 568-B.1, 526-7 and 526-14 standards. Any loss greater than 2dB must be approved by The City or repaired.

Optical Fiber Cable Type Wavelength (nm) Maximum Attenuation (dB/km)

62.5 / 125 Multimode 850 3.5 1300 1.5 Singlemode inside plant cable 1310 1.0 1500 1.0 Singlemode outside plant cable 1310 0.5 1500 0.5

Copper Telephone Feeder Cable Labeling: Upon completion of each network installation, the Vendor will label cables on both ends with a machine-generated label using a corresponding numbering scheme (both ends must have the same number). All labeling must conform to ANSI/TIA/EIA 606-A standards.

Fiber Labeling. Upon completion of each network installation, the Vendor will label all terminated optical fibers on both ends with a machine-generated label using a corresponding numbering and/or name scheme (both ends must have the same number). Vendor will tag all new fiber construction at every pole attachment (for aerial fiber) with fiber tags provided by the City.

Release of Liens. Before payment is made for each location where cable is installed, the Vendor shall deliver to the City releases of all liens and of rights to claim any lien, in a form satisfactory to SAIC, from all material suppliers and contractors furnishing labor and materials under this agreement and an affidavit, in a form acceptable to the City, to the effect that all labor used under this agreement has been paid.

Special Installation Requirements

Additions, Moves, and Changes: Additions, moves, and changes may be ordered as needed for the duration of this agreement, via the Vendor contact person and referenced with a work order number. The Vendor is expected to coordinate changes with current voice and data providers and any other City parties, as needed.

GPS Information: All GPS information for any additional or new fiber cabling will be submitted via e-mail to <u>Networkservices@memphistn.gov</u> as soon as the installation is complete. This information will also be provided to Tennessee 811 in the appropriate format.

Cable Requirements

Fiber Optic Cable

Fiber optic cabling used for networking Ethernet systems, backbones, and point-to-point must meet specifications as outlined on Exhibit 4—Pricing Template. Vendor is to price fiber per foot, including installation. All fiber optic cabling is to be run inside of inner duct for protection, and terminated with Corning LC Unicam connectors.

Aerial Cable Placement

- All fiber cables must be dielectric loose tube with a dry blocking agent.
- All fiber cables must be double lashed to a 10M support strand using .038 super high strength lashing wire. No self-supporting or figure eight type cables.
- Clearances for aerial cable over road ways and parking lots must meet National Electrical Safety Code (N.E.S.C.) standards.
- Guying for aerial cables must meet requirements specified in the AT&T Outside Plant Engineering Handbook dated August 1994 and BICSI Customer-Owned Outside Plant 2nd Edition.
- Detailed drawings must be submitted to MLGW for pole attachment approval.
- All riser cable must be protected by a minimum of three 3/16"x 8' u-guards.
- A maintenance loop must be placed every ten spans for emergency restoration. Each maintenance loop must be a minimum of 160 feet in length and lashed to the support strand.
- Standoff brackets must be used when required by MLGW for backside pole attachments.
- All aerial cable design must meet the heavy storm loading requirements set forth in the AT&T Outside Plant Engineering Handbook dated August 1994.
- When federal, state, city, or county requirements differ from those of the NESC, BICSI Customer-Owned Outside Plant 2nd Edition, and AT&T Outside Plant Engineering Handbook dated August 1994, adhere to governmental requirements only when they are more stringent than those of the NESC, BICSI Customer-Owned Outside Plant 2nd Edition, and AT&T Outside Plant Engineering Handbook dated August 1994.

Buried Cable Placement

- All fiber cables must be dielectric loose tube with a dry blocking agent.
- All cables must be placed at a depth of thirty inches or greater.
- All trenched or directional bored cable must have tracer wire placed along with the cable. Tracer wire must be number twelve gauge or larger and have a HMWPE covering.
- All trenched and directional bored cable must include an inner-duct. The inner-duct must have a diameter of one and one quarter inches and manufactured of HDPE. The inner-duct will be orange in color for visibility.
- All trenched cable will include a warning tape placed twelve inches above the actual depth of the cable.
- All buried cables placed in public Right of Way must have a permit from the City of Memphis.
- All buried cable locations must be submitted in GPS format to Tennessee 811.
- When federal, state, city, or county requirements differ from those of the NESC, BICSI Customer-Owned Outside Plant 2nd Edition, and AT&T Outside Plant Engineering Handbook dated August 1994, adhere to governmental requirements only when they are more stringent than those of the NESC, BICSI Customer-Owned Outside Plant 2nd Edition, and AT&T Outside Plant Engineering Handbook dated August 1994.

Other Network Equipment

Other network equipment will include cable termination frames:

Nortel 250-pair BIX Frame (A0270164)

Nortel 300-pair BIX Frame (A0340936)

Nortel 6-pair BIX 1A Termination Block (A0266828)

Administration and Surveillance

The Vendor will be responsible for the following administration and surveillance activities:

- Updates and revisions on Tennessee 811 GPS data records, including all cable additions will be provided to Tennessee One Call in the appropriate format.
- Notification of Vendor activity in all City of Memphis owned cables.
- Attendance of all TDOT and Tennessee 811 meetings on behalf of the City of Memphis

Warranty and Serviceability Requirements

All cabling and connectors including fiber optic cable must include a guarantee of a five (5) year Vendor warranty on all hardware and a one (1) year Vendor warranty on all labor. A service phone number must be available for 24-hour calling. An escalation procedure must be provided within the proposal response. The escalation procedure should include the trouble reporting method, first response time, call-out procedures with contact names and telephone numbers, and any other relevant information.

a. Timely Response – Locates: Vendor agrees to have all locates completed within 72-hours, per the laws of Tennessee. Non-emergency locate requests shall be performed during

normal business hours and emergency service within 2-hours, 24 hours a day, 7 days a week.

- **b.** Timely Response Fiber Optic/Copper: In the event that warranty of non-warranty repairs are necessary for a downed system, successful Vendor shall respond in person:
 - A 2 hour response is required during normal business hours after the receipt of the request concerning a downed system.
 - A 4 hour response is required for after-hours service request after the receipt of the request concerning a downed system.
- **c. Dispatch Number:** Vendor must provide a service dispatch number answered 24-hours a day, 7 days a week.
- d. Additions and Changes, Per-Hour Labor and Site Visit Charge: During the period of this Agreement the City will require cable maintenance or moves on previously installed cable. Vendors should quote the per-hour labor charge on this type of service, at no charge. No minimum charge for a site visit will be allowed.
- **e. Service Outside of Business Hours, Per-Hour Labor and Site Visit Charge:** The City views Police and Fire installations as 24-hour-a-day, 7 days-a-week operations. This service is deemed as a per hour charge as stated in Pricing Sheet.
- **f. Cable Locates:** The Vendor will be responsible for reviewing all locate tickets and marking all required locations. This includes updates on all ongoing construction project locations every ten days. The Vendor will be available on standby 24-hours-a-day; 7-days-a-week for emergency locates with a two hour response time.
- g. Tennessee 811: Currently the City has an account with the Tennessee 811 for cable locates. The Vendor will be responsible for making sure all required information is given to Tennessee 811 so the correct Vendor is notified for all locates for the City of Memphis. Updates and revisions for the Tennessee 811 GPS data records, including all cable additions will be provided in the appropriate format to Tennessee 811 and to the City of Memphis. The responsibilities will also include updating the fiber cable spreadsheet. All cable shall be located and documented per the Tennessee One Call requirements.
- **h. Authorized Service:** Vendor must have local, full-time employees who are qualified to provide technical support for services purchased. Specifically:
 - Adequate Staffing: Vendor shall have a fully staffed business office, which includes
 at a minimum, one (1) person to answer service calls and operational questions and
 two (2) technical employees. During normal business hours, the phone must be
 answered by office staff. After-hours telephone answering may be automated if an
 escalation call list to bypass it has been provided by the Vendor. (In addition, the
 Vendor must give the trouble escalation schedule in terms of who handles the
 problem at each level of the escalation and the length of time spent at each level
 before further escalation is required.)
- i. Service Coverage: Vendor agrees to provide normal service between 8:00 a.m. and 5:00 p.m. Monday through Friday, excluding City holidays. Vendor further agrees to provide emergency service 24 hours a day, 7 days a week. Emergency service means any locates that require an immediate locate.
- **j. Service Level Agreement:** Vendor agrees to provide quotes within 5 business days after receipt of the quote request unless the City agrees to extend this time frame. Vendor agrees

to provide emergency quotes within 4 hours after receipt of an emergency quote request. Vendor agrees to a 2-hour response time for a downed system during business hours and a 4-hour response time, 24 hours a day, 7 days a week, for emergency service for a downed system. Vendor agrees to complete all installation requirements in accordance with each funded Purchase Order within 7 business days after approval from Tennessee 811 for buried cabling or/and MLG&W. for aerial cabling, unless the city agrees to extend this timeframe. Along with invoices, Vendor will provide a copy of ALL completed work orders with acknowledgment signature by onsite/end user contact. Vendor will provide by no later than 5th working day of each month a report of work performed for the previous month that will include quote reference number, Remedy request number, date and time quote request received, start and end date and time for work performed, brief description of work performed. Monetary penalties will be assessed by the City per missed SLA.

- 1. \$100 per missed quote unless timeframe was extended by the City
- 2. \$500 per missed emergency quote
- 3. \$500 per missed 2 hour response time per business day emergency
- 4. \$500 per missed 4 hour response time per after-hours emergency
- 5. \$100 per missed installation unless the time frame was extended by the City
- k. Qualified Employees Technicians: Vendor must provide one or more full-time on-staff employees who are BICSI RCDD Certified and/or have a minimum of ten (10) years' experience with outside plant cabling, who are full-time employees and are based in Shelby County. Evidence of technician certification and/or experience shall be attached to the bid. Additional RCDD OSP Certified employees and years of experience are preferred but not required. Out of town consultants and employees will not qualify. These certifications will be verified.
- **I. Tennessee Drug Free Workplace:** It is preferred that the Vendor be an active participant and member of the Tennessee Drug Free Workplace Program. Please attach a current certificate to the bid.
- **m.** Work Eligibility for non US Citizens: Vendor shall provide proof of necessary employment eligibility verification for any non-US Citizen personnel.
- n. Adequate Parts Inventory: Vendor must maintain a spare parts inventory that will allow the Vendor to meet maintenance requirements specified under the contract. The chosen Vendor's spare parts inventory may be inspected at any time during the Contract period for compliance. Failure to comply could cause forfeiture of the Contract.

EXHIBIT 3

Exhibit 2 includes types of work and types of products to be purchased as a result of obtaining a contract through this RFQ process. Exhibit 2 is for informational purposes only, and additional services/items may be required that are not listed in this Exhibit. **DO NOT ENTER PRICING.**

| Item | Description | |
|------|--|--|
| | LOCATE SERVICE AND ROUTE SURVELLANCE | |
| | | |
| | | |
| | | |
| 1 | CABLE REQUIREMENTS | |
| | | |
| | MOHAWK MULTIMODE 62.5/125 OM3/4 PLENUM FIBER | |
| | OPTIC CABLE | |
| 2 | 4 STRAND (M9B044) | |
| 3 | 6 STRAND (M9B045) | |
| 4 | 12 STRAND (M9B048) | |
| 5 | 24 STRAND (M9B612) | |
| 6 | 48 STRAND (M9B616) | |
| 7 | 72 STRAND (M9B620) | |
| | | |
| | MOHAWK SINGLE MODE FIBER OPTIC CABLE | |
| 8 | 4 STRAND (M9W044) | |
| 9 | 6 STRAND (M9W045) | |
| 10 | 12 STRAND (M9W048) | |
| 11 | 24 STRAND (M9W612) | |
| 12 | 48 STRAND (M9W616) | |
| 13 | 72 STRAND (M9W620) | |
| | | |
| | COPPER TELEPHONE FEEDER CABLING | |
| 14 | 25 PAIR FEEDER | |
| 15 | 50 PAIR FEEDER | |
| | | |
| | MAJOR CUSTOM LC-LC 62.5/125 MULTIMODE DUPLEX PATCH | |
| | CORDS | |
| 16 | 2 meter (FD6ALCDLCC-2M) | |
| 17 | 3 meter (FD6ALCDLCC -3M) | |
| 18 | 5 meter (FD6ALCDLCC-5M) | |
| | | |
| | MAJOR CUSTOM LC-LC SINGLEMODE DUPLEX PATCH CORDS | |

| 19 | 2 meter (FSCDSALCDLC-2M) | |
|----|--|--|
| 20 | 3 meter (FSCDSALCDLC-3M) | |
| 21 | 5 meter (FSCDSALCDLC-5M) | |
| | , | |
| | OTHER NETWORK EQUIPMENT HARDWARE COST | |
| 22 | PANDUIT WALL-MOUNT 12-PORT ENCLOSURE (FWME2) | |
| 23 | PANDUIT WALL-MOUNT 24-PORT ENCLOSURE (FWME4) | |
| 24 | PANDUIT WALL-MOUNT 48-PORT ENCLOSURE (FWME8) | |
| 25 | PANDUIT RACK-MOUNT 18-PORT ENCLOSURE (FRME1) | |
| 26 | PANDUIT RACK-MOUNT 36-PORT ENCLOSURE (FRME2) | |
| 27 | PANDUIT RACK-MOUNT 54-PORT ENCLOSURE (FRME3) | |
| 28 | PANDUIT RACK-MOUNT 72-PORT ENCLOSURE (FRME4) | |
| 29 | PANDUIT OPTICOM 6-PORT LC DUPLEX PANELS (FAP6WEIDLC) | |
| 30 | PANDUIT OPTICOM BLANK PANEL (FAPB) | |
| 31 | PANDUIT 2 PORT 6" CHANNEL RACK 84" TALL (R2P6S) | |
| 32 | PANDUIT NETRUNNER VERTICAL CABLE MANAGER (WMPVHC45E) | |
| 33 | PANDUIT LADDER RACK SUPPORT BRACKET (NFLRB) | |
| | CORNING SC MULTIMODE 62.5/125 UNICAM CONNECTOR (95-000- | |
| 34 | 40) | |
| 35 | CORNING SC SINGLEMODE UNICAM CONNECTOR (95-200-41) | |
| 36 | CARLON 1" PLENUM INNERDUCT WITH ROPE (CF4X1C) | |
| 37 | CARLON 1" NON PLENUM INNERDUCT WITH ROPE (CF4X1C) | |
| 38 | 25 PAIR LIGHTNING PROTECTION LOADED W GAS MODULES | |
| 39 | 50 PAIR LIGHTNING PROTECTION LOADED W GAS MODULES | |
| 40 | NORTEL 250 BIX FRAME (A0270164) | |
| 41 | NORTEL 300 BIX FRAME (A0340836) | |
| 42 | NORTEL 6-PAIR BIX 1A TERMINATION BLOCK (A0266828) | |
| | | |
| | BURIED PLANT | |
| | PLACE OUTDOOR RATED 1 1/4" INNERDUCT IN TRENCH OR BORE | |
| 43 | HOLE (LABOR ONLY | |
| | ROD AND MANDRILL DUCT (PER FT) INCLUDES MULE TAPER FOR | |
| 44 | FIBER PULLING | |
| | PULL FIBER CABLE IN THE 1 1/4" INNERDUCT OR | |
| 45 | EXISTINGCONDUIT (PER FT) | |
| 46 | TRENCH 36" – MACHINE | |
| 47 | TRENCH 36" – HAND DIG | |
| 48 | DIRECTIONAL BORE 2" (PER FT) | |
| 49 | DIRECTIONAL BORE 4" (PER FT) | |
| 50 | DIRECTIONAL BORE 6" (PER FT) | |
| 51 | CORE BORE STRUCTURE – SIMPLE (EACH) (X-RAY NOT REQUIRED) | |
| 52 | TRACER WIRE (INDUSTRY STANDARD) WITH HMWPE COVERING | |

| | (PER FT INSTALLED) | [|
|----|---|---|
| 53 | WARNING TAPE (PER 1000 FT REEL) | |
| | PULL BOX (HAND HOLD) 24x36x18 LOAD BEARING (EACH | |
| 54 | INSTALLED) HAND HOLE INCLUDED | |
| 55 | SAW CUT ASPHALT OR CONCRETE (PER LINEAR FT UP TO 6" DEPTH) | |
| | ASPHALT REMOVAL AND DISPOSAL 4" DEPTH (PER SQ FT) | |
| | ASPHALT REMOVAL AND DISPOSAL EACH ADDITIONAL 3" DEPTH | |
| 57 | (PER SQ FT) | |
| 58 | ASPHALT REPLACEMENT – LABOR ONLY (PER SQ FT) | |
| 59 | CONCRETE REMOVAL AND DISPOSAL 6" DEPTH (PER SQ FT) | |
| | CONCRETE REMOVAL AND DISPOSAL EACH ADDITIONAL 2" DEPTH | |
| 60 | (PER SQ FT) | |
| 61 | CONCRETE REPLACEMENT – LABOR ONLY (PER SQ FT) | |
| | | |
| | AERIAL PLANT | |
| | INSTALL 10M STRAND, POLE HARDWARE, STAND-OFF BRACKETS | |
| | WHERE REQUIRED (COST OF STAND-OFF BRACKETS EXTRA, SEE | |
| | ITEM 85), AND DOUBLE LASH FIBER CABLE POLE HARDWARE FOR | |
| | STANDARD INLINE POLE INCLIDES 3 BOLT CLAMP, 18' MACHINE | |
| | BOLT, 2 LASHWIRE CLAMPS, 2 SQUARE NUTS, 2 WASHERS, 2 TIE | |
| 62 | WRAPS AND 2 SPACERS AND 10M STRAND (PER FT INSTALLED) | |
| 63 | STRAND DEAD-END WRAP (EACH) | |
| 64 | STRAND SPLICE (EACH) | |
| 65 | BOND STRAND (EACH) INCLUDES HARDWARE | |
| 66 | RE-SAG CABLE (PER SPAN) | |
| | DE-LASH OR RE-LASH CABLE (PER LINEAR FIBER FT) MATERIAL FOR | |
| 67 | RE-LASH IS INCLUDED WHEN REQUIRED | |
| | INSTALL OR REMOVE STAND-OFF BRACKET EXISTING FIBER ROUTE | |
| 68 | (PER POLE) USED FOR MAINTENANCE | |
| | STAND-OFF BRACKET 1 1/2"X18" (TO BE USED ONLY WHEN | |
| 69 | REQUIRED BY MLGW) | |
| | ANCHOR 6" – INSTALLED (EACH) 6" SCREW ANCHOR IS ALL THAT | |
| 70 | WILL BE REQUIRED | |
| | INSTALL U-GUARD AT RISER POLE (EACH) MOUNTING STRAPS AND | |
| 71 | ½" X 2 ½" LAGS INCLUDED | |
| 72 | U-GUARD 3 3/16" X 8' STEEL – NON-FLANGED (EACH) | |
| 73 | INSTALL DOWN GUY (EACH) INCLUDES HARDWARE | |
| 74 | INSTALL SIDEWALK GUY (EACH) INCLUDES HARDWARE | |
| 75 | INSTALL OVERHEAD GUY (EACH) INCLUDES HARDWARE | |
| 76 | GUY GUARD 8' (EACH) | |
| 77 | GROUND WIRE 5 GA (PER FT) | |
| | REMOVE AND REPLACE ACCESS/MAINTENANCE LOOP FOR NEW OR | |
| 78 | EXISTING SPLICE CASE. USE DOUBLE LASHING OR TIE WRAPS AT | _ |

| INCLUDES LASH WIRE OR TIE WARPS 79 POLE TRANSFER-STRAIGHT LINE (PER POLE) 80 POLE TRANSFER -CURVE (PER POLE) 81 POLE TRANSFER -DUNCTION (PER POLE) 82 POLE TRANSFER -JUNCTION (PER POLE) 83 POLE TRANSFER -JUNCTION (PER POLE) 84 MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE 85 REPAIR OF A FIBER DAMAGE) 86 ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) 87 INCLUDES HARDWARE 88 REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) 89 REMOVE ANCHOR (EACH) 80 TREE TRIMMING (PER SPAN) SPLICING 81 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 10 LOCATION) 10 INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 10 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 11 INCLUDES SLEEVES 92 SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 64 8 STRAND 62.5 MM OR SINGLE MODE 99 50 PAIR FEEDER 99 50 PAIR FEEDER 99 50 PAIR FEEDER 100 8:00AM -5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS HOURS M-F 101 BLOOKS | ī | EDECLIENT ENTRANCE CRUICE CASES (DER LINEAR FIRER ET) | I |
|--|-----|--|----------|
| 79 POLE TRANSFER-STRAIGHT LINE (PER POLE) 80 POLE TRANSFER —CURVE (PER POLE) 81 POLE TRANSFER —CURVE (PER POLE) 82 POLE TRANSFER —JUNCTION (PER POLE) 83 MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE 84 REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) 85 REMOVE ARRIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE ARRIAL PLANT (WRECK-OUT) (PER FT) 87 TREE TRIMMING (PER SPAN) 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) 89 INSTALL NEW SPLICE CASE AND PLACE CABLES — AERIAL (EACH LOCATION) 90 INSTALL NEW SPLICE CASE AND PLACE CABLES — BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) 92 SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 93 FIBER 94 PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 95 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 10 PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER 99 50 PAIR FEEDER 1ABOR CHARGES — HOURLY RATES 1ABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M—F 100 8:00AM — 5:00PM 1ABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | FREQUENT ENTRANCE SPLICE CASES (PER LINEAR FIBER FT) | |
| 80 POLE TRANSFER – CURVE (PER POLE) 81 POLE TRANSFER – DEAD END (PER POLE) 82 POLE TRANSFER – DEAD END (PER POLE) 83 MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE 84 REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) 85 REMOVE AREIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE AREIAL PLANT (WRECK-OUT) (PER FT) 87 TREE TRIMMING (PER SPAN) 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) \$PILCE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 10CLUDES SLEEVES \$PILCE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12-FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 25 PAIR FEEDER 99 50 PAIR FEEDER 99 50 PAIR FEEDER 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 70 | | |
| 81 POLE TRANSFER - JUNCTION (PER POLE) 82 POLE TRANSFER - JUNCTION (PER POLE) MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE 83 REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) 84 INCLUDES HARDWARE 85 REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE ARIAL PLANT (WRECK-OUT) (PER FT) 87 TREE TRIMMING (PER SPAN) 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES - AERIAL (EACH 89 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES - BURIED (EACH 90 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 1NCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES - HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | • | |
| ## POLE TRANSFER -JUNCTION (PER POLE) MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) INCLUDES HARDWARE ## INCLUDES HARDWARE ## INCLUDES HARDWARE ## REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) ## REMOVE ANCHOR (EACH) ## TREE TRIMMING (PER SPAN) SPLICING ## MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) ## RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) ## INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12-FIBER ## PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL ## 12 STRAND 62.5 MM OR SINGLE MODE ## 13 STRAND 62.5 MM OR SINGLE MODE ## 14 STRAND 62.5 MM OR SINGLE MODE ## 15 STRAND 62.5 MM OR SINGLE MODE ## 17 STRAND 62.5 MM OR SINGLE MODE ## 15 SPAIR FEEDER ## 16 SPAIR FEEDER ## 16 SPAIR FEEDER ## 17 STRAND 62.5 MM OR SINGLE MODE ## 18 SPAIR FEEDER ## 18 STRAND 62.5 MM OR SINGLE MODE ## 18 SPAIR FEEDER ## 18 STRAND 62.5 MM OR SINGLE MODE ## 18 SPAIR FEEDER ## 18 STRAND 62.5 MM OR SINGLE MODE ## 18 SPAIR FEEDER ## 18 STRAND 62.5 MM OR SINGLE MODE ## 18 SPAIR FEEDER ## 18 STRAND 62.5 MM OR SINGLE MODE ## 18 STRAND 62.5 MM OR SI | | , | |
| MOVE FIBER SLACK (PER FT) (THIS ITEM IS USED OPTEN IN THE REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) INCLUDES HARDWARE REMOVE ARRIAL PLANT (WRECK-OUT) (PER FT) REMOVE ANCHOR (EACH) TREE TRIMMING (PER SPAN) SPLICING MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) SPLICE AS EACH COLOTION RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 4 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | , | |
| REPAIR OF A FIBER DAMAGE) ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) INCLUDES HARDWARE 85 REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE ANCHOR (EACH) 87 TREE TRIMMING (PER SPAN) SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH 10 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 10 LOCATION) PE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 11 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 24 STRAND 62.5 MM OR SINGLE MODE 99 72 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 25 PAIR FEEDER 99 50 PAIR FEEDER 99 50 PAIR FEEDER 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 02 | , , , | |
| 84 INCLUDES HARDWARE 85 REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE ANCHOR (EACH) 87 TREE TRIMMING (PER SPAN) SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH 100 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 100 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLES – BURIED (EACH 100 LOCATION) 92 INCLUDES SLEEVES SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 110 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 118 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP 11 INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 10 PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP 11 INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 83 | , , , , | |
| 85 REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) 86 REMOVE ANCHOR (EACH) 87 TREE TRIMMING (PER SPAN) SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | ATTACH FIBER TO BUILDING DIRECTLY FROM POLE (EACH) | |
| 86 REMOVE ANCHOR (EACH) 87 TREE TRIMMING (PER SPAN) SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH 89 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 90 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR; AFTER NORMAL BUSINESS DAY | 84 | INCLUDES HARDWARE | |
| SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 90 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 85 | REMOVE AERIAL PLANT (WRECK-OUT) (PER FT) | |
| SPLICING 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH 89 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH 90 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 86 | REMOVE ANCHOR (EACH) | |
| 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH B9 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 87 | TREE TRIMMING (PER SPAN) | |
| 88 MID-SHEATH FIBER ENTRY (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH B9 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | | |
| INSTALL NEW SPLICE CASE AND PLACE CABLES – AERIAL (EACH LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 10 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | | |
| 89 LOCATION) INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 92 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 88 | MID-SHEATH FIBER ENTRY (EACH LOCATION) | |
| INSTALL NEW SPLICE CASE AND PLACE CABLES – BURIED (EACH LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 92 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- 93 FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | • | |
| 90 LOCATION) 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 1NCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 89 | | |
| 91 RE-ENTER SPLICE CASE AND PLACE CABLE (EACH LOCATION) SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) 101 INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | • | |
| SPLICE 1-12 OPTICAL FIBERS (FUSION METHOD EACH FIBER) INCLUDES SLEEVES SPLICE CASE WITH ALL HARDWARE AND SPLICE TRAYS FOR 12- FIBER PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | , | |
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| PREMISE FIBER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 94 12 STRAND 62.5 MM OR SINGLE MODE 95 24 STRAND 62.5 MM OR SINGLE MODE 96 48 STRAND 62.5 MM OR SINGLE MODE 97 72 STRAND 62.5 MM OR SINGLE MODE PREMISE COPPER INSTALLATION COST IN CONJUNCTION WITH OSP INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | | |
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| INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 97 | 72 STRAIND 62.5 MINI OR SINGLE MODE | |
| INSTALL 98 25 PAIR FEEDER 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | DREMISE CODDED INSTALL ATION COST IN CONJUNICTION WITH OSD | |
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| 99 50 PAIR FEEDER LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | 98 | | |
| LABOR CHARGES – HOURLY RATES LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | | |
| LABOR PER PERSON PER HOUR; NORMAL BUSINESS HOURS M-F 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | JO I AMALEDEN | |
| 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | LABOR CHARGES – HOURLY RATES | |
| 100 8:00AM - 5:00PM LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | | | |
| | 100 | | |
| | | LABOR PER PERSON PER HOUR, AFTER NORMAL BUSINESS DAY | |
| | 101 | | |

| 102 | LABOR PER PERSON PER HOUR, HOLIDAY | |
|-----|---|--|
| | BACKHOE WITH OPERATOR PER HOUR, NORMAL BUSINESS HOURS | |
| 103 | M-F 8:00AM - 5:00 PM | |
| | BACKHOE WITH OPERATOR PER HOUR, AFTER NORMAL BUSINESS | |
| 104 | DAY HOURS | |
| 105 | BACKHOE WITH OPERATOR PER HOUR, HOLIDAY | |
| | FIBER SPLICER WITH BOOM TRUCK AND TOOLS FROM 8:00AM - | |
| | 5:00PM M-F. THIS ITEM IS TO BE USED FOR SPECIAL SITUATIONS | |
| 106 | TO FACILITATE MAINTENANCE AND REPAIRS ONLY (PER HOUR) | |
| | FIBER SPLICER WITH BOOM TRUCK AND TOOLS FROM 5:01PM - | |
| | 7:59PM M-F, WEEKENDS AND HOLIDAYS. THIS ITEM IS TO BE USED | |
| | FOR SPECIAL SITUATIONS TO FACILITATE MAINTENANCE AND | |
| 107 | REPAIRS ONLY | |
| 108 | CITY RIGHT OF WAY PERMIT (PER FT) | |
| | JOB DESIGN (PER FT) (3500 FT MINIMUM, TO INCLUDE ACCESS | |
| | AND MAINTENANCE LOOP) PRICE WILL INCLUDE DRAWINGS | |
| | DELIVERED TO AND RETRIEVED FROM MLGW, OBTAIN CITY RIGHT | |
| | OF WAY PERMITS, GPS DATA, AND AS-BUILT DRAWINGS | |
| 109 | SUBMITTED TO CITY OF MEMPHIS AT COMPLETION OF JOB. | |
| | SPECIALTY MATERIALS AND SERVICES PURCHASED BY VENDOR | |
| 110 | WITH PRIOR APPROVAL OF CITY OF MEMPHIS (COST PLUS 20%) | |
| | PRIVATE LOCATE SERVICE USED TO LOCATE UNDERGROUND | |
| | FACILITIES OWNED BY THE CITY OF MEMPHIS NOT COVERED BY | |
| | TENNESSEE ONE CALL. THIS WOULD BE ONLY ON CITY OF | |
| | MEMPHIS PROPERTY. SOME EXAMPLES USED WOULD BE BURIED | |
| | ELECTRICAL LIGHTING, IRRIGATION LINES, ALARM AND SECURITY | |
| | SYSTEMS. (PER LOCATION WITH 500 FT LIMIT PER LOCATION) CITY | |
| | OF MEMPHIS PERSONNEL WOULD BE REQUIRED TO NOTIFY | |
| | CONTRACTOR OF THESE FACILITIES. CITY OF MEMPHIS PERSONNEL | |
| | COULD LOCATE AT NO CHARGE TO CITY OF MEMPHIS AS AN | |
| 111 | OPTION. | |

Exhibit 4 City of Memphis Fiber

| 1 | Austin Peay Police Station | 9,530 |
|----|--|-------|
| 2 | Raleigh Library | 7,540 |
| 3 | Grounds Maintenance Horticulture 281 E Parkway | 750 |
| 4 | Orange Mound CC to Arson Squad -Lamar | 6,400 |
| 5 | North Water Treatment Plant to MFD 4 | 6,000 |
| 6 | Frayser Shelter 2893 N Watkins | 1,500 |
| 7 | Kennedy Shelter 4571 Raleigh Lagrange | 260 |
| 8 | Mississippi Shelter 4364 Horn Lake | 240 |
| 9 | Willow Shelter 4843 Willow | 1,000 |
| 10 | MPD Heliport to MPD Training | 3,000 |
| 11 | Crime Scene 475 Klinke to Impound Lot | 1,500 |
| 12 | Fire Museum to City Hall | 1,500 |
| 13 | Fire Training to Police Training | 1,000 |
| 14 | Vehicle Repair 309 Scott to Sanitation 283 Scott | 1,200 |
| 15 | Vehicle Repair 819 E Raines to 791 E Raines MPD South | 1,000 |
| 16 | Vehicle Repair 1513 Levee to Solid Waste 1514 Bellevue | 500 |
| 17 | Vehicle Repair Fuel Pump top 2602 Mt Moriah MPD East | 800 |
| 18 | Vehicle Storage to 425 Klinke to Crime Scene 475 Klinke | 1,000 |
| 19 | Emergency Management to 79 Flicker | 800 |
| 20 | Dog Squad to Emergency Management | 500 |
| 21 | Ridgeway MPD Precinct In and Out to Memphis Networx Backbone | 6,500 |

| 22 | City Beautiful 664 Adams to extended from 616 Adams Splice | 800 |
|----|--|--------|
| 23 | Mud Island -MPD 140 Cameras | 2,153 |
| 24 | 1-55/ OCU - MPD I55/RR Bridges Cameras | 2,140 |
| 25 | 2714 Union Ext -MPD Internal Affair Bureau | 1,396 |
| 26 | 3030 Poplar - Memphis Public Library - Main Branch | 4,129 |
| 27 | 750 East Holmes Rd -Whitehaven Golf Course | 5,800 |
| 28 | 4351 New Allen Rd -MFD Station 49 | 10,004 |
| 29 | 1670 Channel -MFD Station 32 | 16,506 |
| 30 | 4602 Riverdale -MFD Station 55 | 12,376 |
| 31 | 220 Humphreys Blvd -MFD Station 44 | 23,570 |
| 32 | 355 Hollywood -Liberty Bowl and PT to PT Liberty Bowl to Youth Services Bldg | 3,320 |
| 33 | 600 Jefferson -MPD Real Time Crime Center (RTCC) | 856 |
| 34 | 1017 Jefferson MFD STA 7-Com Tower | 350 |
| 35 | 4528 Overton Crossing MFD STA -31 Com Tower | 160 |
| 36 | 5921 Shelby Oaks 51 -Com Tower | 140 |
| 37 | 5185 Hwy 61 S. MFD STA 45 -Com Tower | 120 |
| 38 | 6675 Winchester Rd MFD 52 -Com Tower | 150 |
| 39 | Raymond Skinner Center 712 Tanglewood | 6,950 |
| 40 | 1075 Mullins Station Rd | 11,630 |
| 41 | Flood Control Gayoso Station 35 Saffarans | 700 |
| 42 | 2960 Lamar Ave -Fire Station 22 (year 2010) | 500 |
| 43 | Ruth Tate Senior Center 1620 Marjorie | 17,300 |
| 44 | 2350 Appling City Cv -Animal Shelter | 7,400 |

| 45 | 1750 Madison -Family Safety Center to City backbone | 850 |
|----|---|-------|
| 46 | 949 E.H.Crump -MPD Crump Station to City backbone | 4,300 |
| 47 | Vehicle Repair -949 E.H. Crump to MPD Crump Station main bldg | 650 |
| 48 | 616 Adams -Juvenile Court to MPD RTCC | 2,300 |
| 49 | 340 Beale -MPD Entertainment District Unit to City backbone | 1,400 |
| 50 | Vehicle Repair -6850 Appling Farms Parkway to MPD Appling Farms Station | 300 |
| 51 | 4381 OK Robertson -USAR warehouse to MPD Heliport | 1,250 |
| 52 | 4381 OK Robertson -USAR warehouse to Fire Training Academy | 1,400 |
| 53 | Multi-Gang Unit 3657 Old Getwell | 250 |
| 54 | 298 Collins -ADA trailer to Collins Yard admin bldg | 250 |
| 55 | 2201 Lamar -Airmask bldg to Fire Arson bldg | 250 |
| | | |
| 56 | Fire Training Apparatus bldg to Fire Training Academy - OK Robertson | 450 |
| 57 | 5992 Quince -Wildlife Center to Lichterman Nature Center admin bldg | 350 |
| 58 | 5992 Quince -Plant Propagation to Lichterman Nature Center admin bldg | 400 |
| 59 | 3448 W Range Hills -Sweeper Shop to Drain Maintenance admin bldg | 400 |
| 60 | 79 Flicker camera box corner of Flicker & Avery | 400 |
| 61 | Lester Community Center 317 Tillman | 3,800 |
| 62 | MPD Tillman Station 426 Tillman | 400 |
| 63 | Raleigh Community Center 3678 Powers | 4,200 |
| 64 | MFD Station 47 - 3510 Coleman | 800 |
| 65 | MFD Station 48 - 4985 Raleigh Lagrange | 1,000 |
| 66 | Drain Maintenance - 3448 W Range Hills | 1,400 |
| 67 | Marion Hale Community Center - 4791 Willow | 450 |

| 68 | Universal Life Insurance 480 Martin Luther King Jr Blvd | 2,800 |
|----|---|--------|
| 69 | Property Maintenance 3720 Knight Arnold | 9,800 |
| | • • | · |
| 70 | Whitehaven Community Center 4318 Graceland | 2,600 |
| 71 | Mitchell Community Center 602 W Mitchell | 8,700 |
| 72 | Charles Powell Community Center 810 Western Park | 6,500 |
| 73 | Dave Wells Community Center 915 Chelsea | 2,500 |
| 74 | North Frayser Community Center 2555 St Elmo | 450 |
| 75 | Charles Davis Community Center 3371 Spottswood | 900 |
| 76 | Riverview Community Center 1891 Kansas | 6,950 |
| 77 | Pine Hill Community Center 973 Alice | 525 |
| 78 | Douglass Community Center 1616 Ash | 1,740 |
| 79 | Hollywood Community Center 1530 N Hollywood | 3,525 |
| 80 | McWherter Senior Center 1355 Estate | 8,300 |
| 81 | Environmental Maintenance 2245 Truitt | 975 |
| 82 | McFarland Community Center 4955 Cottonwood | 7,000 |
| 83 | Bickford Community Center 233 Henry | 2,500 |
| 84 | MPD Video Office 855 N White Station | 1,200 |
| 85 | MPD Investigative Services 51 S Flicker | 1,175 |
| 86 | Asphalt Plant ADA Trailer 1049 Sledge | 250 |
| 87 | Bert Ferguson Community Center 8505 Trinity | 4,000 |
| 88 | Hickory Hill Community Center 3910 Ridgeway | 6,500 |
| 89 | Neighborhood Improvement 4225 Riverdale | 12,500 |
| 90 | Cunningham Community Center 3773 Old Allen | 4,500 |

Total Footage 304,110