Request for Qualifications

Clarksville Light & Water
100 W. Main Street
Clarksville AR 72830

For

Broadband Service Providers

In the interest of creating a Public Private Partnership

For

Internet Protocol Type Service Deployment

Issued
February 15, 2017

Due Date
March 15, 2017
SECTION 1, GENERAL OVERVIEW:

Introduction: This document is a Request for Qualification (RFQ) from Clarksville Light & Water (CLW) for purposes to assess the interest of the service provider community in joining CLW in a public-private partnership to deploy IP type broadband services throughout the city. CLW seeks creative solutions for connectivity and advancing broadband adoption throughout the community including anchor institutions, business and commercial entities, and eventually residential customers with the ultimate objective being economic growth and local sustainability. Service providers are asked to respond with their qualifications, level of interest, technical capabilities, potential service/product offerings, and information regarding their overall interest in joining CLW in a public-private partnership. This partnership could be either in a retail or wholesale fashion and designed to be delivered over ultra-high speed communications over a fiber optic network CLW owns.

1.1 Purpose: the purpose of this RFQ is to determine the following:
1. Develop information to determine level of service provider interest.
2. Define high-level goals for a CLW-Service provider partnership.
3. Solicit creative solutions from qualified service providers to join CLW in a plan to deploy gigabit services throughout the CLW service area.
4. Determine a short list of interested service providers for potential contracts and/or negotiations.
5. This RFQ is not a bid, however costs of services will be considered as a part of the overall value of the partnership arrangement. The process will be conducted following the spirit of the Arkansas Procurement Laws Subchapter 8 providing for professional services to be selected based upon qualifications and A.C.A. § 14-58-1001 which allows municipal utilities to select on a negotiated basis.

1.2 Issuing Agency: Clarksville Light & Water Company (CLW) is the issuing agency and is owned by the City of Clarksville, Arkansas. The history of the utility goes back to 1913 when the electric, water and sewerage operations started providing utility services to the community. At the time Clarksville was considered one of the most progressive towns in Arkansas. CLW's current governing board structure was established in 1947, when the City Council appointed a Commission to act as an agency of the City, charged with the responsibility of administering the CLW in the best interest of the citizens of City of Clarksville. Also refer to http://www.clarksvilletlightwater.com for additional information. All respondents are encouraged to supply concise responses with the understanding that lengthy RFQ responses are not necessary.

1.3 Instructions to Respondents: Please respond to each paragraph according to the following instructions. Sections 1, 2, and 3 may be responded to by stating agreement or compliance with each entire section at the end of the respective section, if respondent is in agreement; otherwise respondent must address each numbered paragraph. Any exceptions must be noted. Section 4
must be responded to point by point. Section 5 should include a signed and dated Letter of Transmittal as instructed by an authorized representative. Respondents must submit two hard copies with original signatures of authorized representatives plus a complete copy in PDF format. Please provide any financial tables in Excel format. All evaluations will be based on hard copy submittals.

1.4 **RFQ Format:** Any statement in this document that contains the word “must” or “shall” or “will” means that compliance with the intent of the statement is mandatory, and failure by the respondent(s) to satisfy that intent will cause the response to be rejected. It is recommended that respondent(s) respond to each item or paragraph of the RFQ in sequence. Items not needing a specific vendor(s) statement may be responded to by concurrence or acknowledgement; no response will be interpreted as an affirmative response or agreement to the RFQ conditions. Reference to handbooks or other technical materials as part of a response must not constitute the entire response and vendor(s) must identify the specific page and paragraph being referenced.

1.5 **Type of Contract:** In the event a contract is issued as a result of this RFQ, the resultant contract will include terms and conditions of this RFQ.

1.6 **Proprietary Information:** Proprietary information submitted in response to this (RFQ) will be processed in accordance with applicable CLW procurement procedures and Arkansas laws. RFQs and documents pertaining to the RFQ will become the property of the CLW and shall be open to public inspection subsequent to RFQ opening. It is the responsibility of the vendor(s) to identify all proprietary information. The vendor(s) must submit one complete copy of the RFQ from which any proprietary information has been removed, i.e., a redacted copy. The redacted copy should reflect the same pagination as the original, show the empty space from which information was redacted, and should be submitted on a CD or flash drive. Except for the redacted information, the redacted copy must be identical to the original hard copy. The vendor is responsible for ensuring the redacted copy on CD/flash drive is protected against restoration of redacted data. The redacted copy will be open to public inspection under the Freedom of Information Act (FOIA) without further notice to the vendor(s). If you do not send a redacted copy, your entire response will be open to public inspection with the exception of financial data (such as pricing). If the CLW deems redacted information to be subject to the FOIA, the vendor(s) will be contacted prior to sending out the information.

1.7 **Reservation Clause:** This RFQ does not commit the CLW or City of Clarksville to award a contract, to pay costs incurred in the preparation of a response to this RFQ, or to procure or contract for any services.

1.8 **Questions:** Respondents may ask questions about the RFQ via email or phone call. Answers to email questions will be made available to all respondents notifying CLW of interest to respond.
All questions should be submitted via email to john.Lester@clarksvillelightwater.com and will be responded to via email to all service providers submitting questions. Verbal answers to questions may be provided as a courtesy, but will not be considered official responses to the RFQ.

1.9 **Oral and/or Written Presentations/Demonstrations:** In addition to the written response, vendor may, at the discretion of the CLW evaluation committee, make an oral presentation. The RFQ evaluation committee chairperson will schedule the time and location for each presentation. All vendor expenses associated with the initial presentation except will be borne by the vendor.

1.10 **Definition of Terms:** The RFQ will use the words service provider, vendor and respondent interchangeably to generically describe interested parties to a public-private partnership.

1.11 **Publicity:** News releases, or any release of information in a public manner including but not limited to social media, pertaining to the RFP or the services, study, data or project to which it relates will not be made without prior written approval of CLW, and then only in accordance with the instructions from CLW. Failure to comply with this requirement is deemed to be a valid reason for disqualification of the vendor’s response.

1.12 **RFQ Evaluation:** The initial RFQ will be evaluated by a CLW workgroup selected by the CLW General Manager made up of CLW staff and interested individuals with technical expertise from local institutions. Any resulting contracts, if any, will be issued after a negotiation has been completed and CLW is satisfied that the needs of the utility and the City of Clarksville will be fulfilled taking into consideration geographic areas and specific populations proposed to be served by the provider. This solicitation may allow for resulting contracts to be issued to multiple vendors if in the best interest of the CLW and corresponding interested party wishing to participate to do so.

1.13 **Negotiations:** As provided in this RFQ, discussions may be conducted with responsible vendor(s) who submit responses determined to be reasonably qualified of being selected for a public-private partnership with CLW.

1.14 **Financial records:** The service provider shall be required to maintain all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted accounting principles and other procedures specified by CLW. Access will be granted upon request, to CLW, or any other subject governing entities or any of their duly authorized representatives.

1.15 **Prime Contract Responsibility:** Qualifying vendors will be required to assume prime contractor responsibility and will be the sole point of contact for any resulting contracts.

If any part of the work must be subcontracted, vendor must include a list of subcontractors,
including firm name and address, EIN (Employee Identification Number), contact person, complete description of work to be subcontracted, and descriptive information concerning subcontractor’s organizational activities in the negotiated contract. CLW reserves the right to refuse the choice of any particular sub-contractor that may be proposed.

The vendor shall not assign the contract in whole or in part without the prior written consent of the CLW. The qualifying vendor shall give CLW immediate notice, in writing, by certified mail of any action, which, in the opinion of the contractor, may result in litigation related in any way to the contract or to CLW.

1.16 Conditions of Contract: Qualifying vendors shall at all times observe and comply with federal and state laws, local laws and ordinances, orders, and regulations. Respondents shall indemnify and save harmless the agency and all its officers, representatives, agents, and employees against any claim or liability arising from this RFQ.

1.17 CLW Statement of Liability: The CLW will demonstrate reasonable care but shall not be liable in the event of loss, destruction, or theft of vendor-owned equipment, software, or technical literature to be delivered or to be used in the installation of deliverables. The qualified vendor is required to retain total liability for equipment, software, and technical literature until the deliverables have been accepted by the “authorized agency official.” At no time will the CLW be responsible for or accept liability for any vendor-owned items.

1.18 Award Responsibility: CLW will be responsible for award and administration of any contracts resulting from this RFQ.

1.19 Confidentially: Qualified providers shall be bound to confidentiality of any information that its employees may become aware of during the course of performance of contracted tasks in the event a contract is awarded. Consistent and/or uncorrected breaches of confidentiality may constitute grounds for cancellation of the contract.
SECTION 2, TIME TABLE OF EVENTS:

2 The following table is the schedule of events with respect to the RFQ:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/15/17</td>
<td>Final RFQ approved and published</td>
</tr>
<tr>
<td>3/15/17</td>
<td>RFQ due date</td>
</tr>
<tr>
<td>3/29/17</td>
<td>Evaluation of RFQ submittals</td>
</tr>
<tr>
<td>4/7/17</td>
<td>Close period for vendor presentations with CLW Bb committee</td>
</tr>
<tr>
<td>4/17/17</td>
<td>Projected selection date</td>
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<tr>
<td>TBD</td>
<td>Target agreement date</td>
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SECTION 3, ABOUT CLW AND THE CITY OF CLARKSVILLE:

3 City of Clarksville and CLW:

3.1 The City of Clarksville is nestled at the foot of the Ozark Mountains and in the heart of the River Valley. Clarksville is a town of dynamic opportunities. The natural beauty of Arkansas is truly exemplified in our mountains, rivers, lakes, and landscape. Clarksville is centrally located to everything that is great about Arkansas, from wine tasting and fine dining, to canoeing, horseback riding, hang gliding and more. Clarksville Light & Water (CLW) is a municipally owned utility belonging to the people of Clarksville, Arkansas. The population of Clarksville was 9,251 as of the last census and has experienced consistent growth for the last few decades. The utility currently provides electric, water and wastewater services to the community of Clarksville as well as potable water to city residents on a retail level.

3.2 CL&W is unique from a couple of different aspects. It is one of only fourteen (14) cities in the State of Arkansas to own an electric utility. At present, the electric utility system has a summer peak at over 50 megawatts’. CL&W serves over 4,500 retail customers and has a healthy industrial load for a community of just fewer than 10,000. A significant amount of CLW’s power supply is made up of renewable energy resources as well. Although CLW’s water utility has retail customers within the city limits, CLW serves an additional eight (8) wholesale water systems with our sixteen (16 MGD) million-gallon plant capacity. This means that CLW actually serves a population of approximately 28,000 population in the Arkansas River Valley area. The Wastewater utility has 3,600 customers.

3.3 The current governance of CL&W was set up in its present form in 1947. At that time the City Council appointed a Utility Commission to oversee its operations in a businesslike manner. The Commission is an agency of the city, responsible to the citizens of Clarksville through the City Council, whose members are elected. Commissioners are appointed for staggered five-year terms and serve without compensation. They are charged with the responsibility of administering CLW in the best interest of the people and businesses of Clarksville.
SECTION 4, SCOPE OF PROJECT:

4 CLW Broadband Work Group:

4.1 CLW Leadership and Work Group: The general manager of CLW has elected to form a citizen’s advisory panel consisting of representatives from the community including secondary schools, higher education, area economic development executives and representatives from business and industry as well as select staff of CLW. The members’ areas of expertise include technology, business operations, governmental operations and economic development. The mission of the work group is to research, consider and recommend the future direction related to community offerings over the fiber optic network to CLW management and utility commission. More specifically, these recommendations should address what types customer classes should be considered for service, what types of services should be provisioned on the network, and finally how and what role CLW should plan on providing those services. The RFQ is designed to allow vendors and service providers to address accordingly.

4.2 Goals and Objectives of the Project: The primary goal of the project is to leverage a pre-existing fiber facility constructed to support the city’s electric utility, which is owned and operated by CLW. At the end of 2015, the CLW board approved a capital budget for the 2016 fiscal year, which included the implementation of a Supervisory Control And Data Acquisition (SCADA) system for the electric utility. The SCADA will allow the Clarksville grid to be monitored for a number of items and this initial step will be the foundation of the automation process. SCADA also controls and monitors its water treatment plant, storage tanks and devices in the field for the water utility. Although the network will be a combination of wireless and wireline, the primary method chosen to carry the data communication was via fiber optic cable. The construction of the core fiber network for SCADA began in December of 2015 and was completed by March 2016. By early June all of CLW business communications need were being transported on the fiber network as well. The core network connects all four electric substations as well as wirelessly connects to the Southwestern Power Administration grid tie substation located north of Clarksville near Ludwig. The fiber network will also connects CLW’s operations building, the Main Office, the West Hill Water tower, the Pollution Control Facility and finally the Water Treatment Plant. The network is designed in a way that make the system very reliable, highly redundant, and ultra-high speed. The 288-strand cable will provide enough capacity for the long-term needs of the utility and it has plenty of capacity for the implementation of other services for the community. It is CLW’s desire to own all of the outside fiber plant for the delivery of services.

4.3 Priorities for customer types to be serviced: The priorities identified by the CLW Broadband Work-Group with respect to target customers are as follows:
   1) Community Anchor Initiations (CAI)
      a. Hospitals and medical facilities
      b. Educational institutions including K-12 and Higher Education
      c. Public Safety & Emergency Services
d. Governmental Entities – Federal, State, County & City

e. Other Not-For-Profit Type organizations

2) Business and industry customers
   a. Existing local businesses
      i. Manufacturing and Commercial
   b. New business opportunities - Resulting Economic development initiatives and job growth

3) Residential
   a. Residential customer in an open access environment without regard to any specific demographics
   b. Services tailored to include low income households

4.4 Priorities for services delivered over the CLW owned fiber: The priorities with respect to service characteristics are as follows:
   The four priorities identified were as follows:
   1) Service Levels – Product Mix/Offerings
   2) Affordability
   3) Reliability
   4) Security

4.5 Operating models under consideration: The citizens work group has researched and considered the following five operating models as represented in the white paper, Successful Strategies for Broadband Public-Private Partnerships\(^1\). Of those listed below, the models of most interest are public-private partnership models characterized by categories 2-4. Option 1, all-public, and Option 5, all-private are of less interest at the current time. However, CLW is willing to examine any model that best serves the citizens of Clarksville including variations of the list below. Please provide commentary with respect to the respondent’s interest in each model described below or variation as offered by respondent.

The Infographic below illustrates the spectrum of public / private combinations that have been used successfully in other cities. Specific examples are sited as a framework and point of reference for consideration by CLW and service providers interested in submitting a response to this RFQ.

4.6 Please address your company’s interest in the models below with emphasis on examples (Ex.) 2, 3 and 4.
1) Fully Public Model: CLW would design, build, develop, operate, and manage a citywide ISP. Additionally, CLW would provide all customer care and support including user qualification, customer acquisition, customer provisioning, customer problem resolution and on-going customer support.
   - Example Chattanooga, TN. In this model, the public entity assumes full control and risk over the local network. A public agency finances construction, operates the network, and serves as the retail broadband provider, handling customer service requests from subscribers.

2) Public-led Contracting: CLW will serve as the lead entity and broadband service will be branded as a CLW service or perhaps co-branded in conjunction with the selected service provider such as Giga-bit Internet service provided by Clarksville, Light and Water or CLW and X service provider.
Example, Leverett, MA: In the example, the public entity takes on most of the project’s responsibilities: financing, constructing and owning the network infrastructure. Private sector engagement is limited to more specific tasks. A public entity seeks a private partner specifically to handle network operations or other duties specifically negotiated. Leverett issued a series of bids and contracts to various providers for infrastructure build out and service delivery.

Characteristics:

- Public entity owns and finances the network facilities including FTTH. In the specific example, financing was made possible via a general obligation bond issue supported by a property tax increase.
- Public entity outsources most critical functions.
  - City is responsible for all capital expenditures related to the network.
  - Network operations outsourced to nearby electric utility. Network operations outsourcer is responsible for operation expenses, but not responsible for any capital expenditures.
  - Internet service functions are outsourced to local ISP on an exclusive basis with an initial term of 3-years. ISP is not responsible for any capital expenses or network operations expenses. ISP is responsible for expenses associated only with delivery of ISP services.
  - ISP is responsible for customer service including answering calls with a human representative.
- Key Points: Public entity owns the network. Construction, network operations, and Internet services including customer-care are all outsourced. ISP has exclusive rights, not an open-access model. City set prices for ISP services.
- Result is gigabit services delivered at reasonable prices well in advance of traditional service providers’ rollout plans.

3) Public Assets - Open Access: Two or more service providers will be granted access to the CLW network. CLW will charge an access fee to the service providers. The service providers will market and price their own package of services. CLW will negotiate a clear division of labor and responsibility between the service provider and CLW.

Examples, Ammon ID: In this model the public sector invests in significant infrastructure that can support a local network project. The public sector takes on an active role by building assets that can be leased to an independent partner. The resulting network may have some components that are publicly owned (often the longer-lived, more expensive passive assets like conduit and/or fiber) and some that are privately owned (e.g. ONTs and other electronics). Ammon financed the network through a “Local Improvement District” or LID. CLW may or may not
commit to an improvement district or end user fee. Financing alternatives are still under consideration.

- **Characteristics:**
  - City provides wholesale infrastructure and services to independent service providers.
  - Open access model allows any interested and qualified service provider to join the network and sell services.
  - Independent service providers market and deliver services to end-user customers.
  - Independent service providers are responsible for all customer service, billing and customer care.

- **Key points:**
  - Public entity constructs, owns and operates the network. Internet services including customer-care are all outsourced. Participating ISPs have non-exclusive rights as part of an open-access model. Prices are dictated by free market forces.
  - Result is gigabit services delivered at reasonable prices well in advance of traditional service providers’ rollout plans.

4) Balanced Partnership: One selected service provider will be granted exclusively for an initial period of 2-3 years. Thereafter, the network will be an open-access network available to qualifying service providers.

- **Example, Westminster, MD:** The balanced partnership model is an extension of Model 3) Public Assets - Open Access where by risk and reward between the public and private partners are shared roughly equitably. It is anticipated that the division of responsibilities will evolve through a series of negotiations. In the specific example, the City financed and constructed network fiber network. A pilot project was financed by available capital funds. A general obligation bond issue subsequently financed the full project.

- **Characteristics:**
  - City offered an agreement with selected service provider for a 10-year period. As an inducement, the selected service provider was granted exclusive status for a period of 24 months. After the exclusivity agreement expires, and the network evolves into an open-access model. The partner is expected to fully cooperate with any qualified service provider joining the network.
  - Provider is responsible for customer service including answering calls with a human representative.
  - The final agreement resulted from a negotiation defining the specific division of responsibilities between the city and service provider.
Key Points: City is responsible for financing, engineering, construction, and maintenance of the network. Provider partner is responsible as both network operator and ISP. ISP has limited exclusivity followed by open-access model.

Result is gigabit services delivered at reasonable prices well in advance of traditional service providers’ rollout plans.

5) Private-led Investment, Public Support: Examples, Kansas City, MO; Austin TX.

Google Fiber is the most prominent example of this kind of private-led cooperation. Municipal governments have partnered with Google to facilitate new private investment streamlining permitting processes and providing property for network huts in the field. These incentives are then typically available to other providers as well. An important result of this approach is that the subsequent network is designed, owned, and operated totally independent of public sector partners.

Characteristics:
- Public sector facilitates fiber build out with friendly ordinances and regulations. Some cities offer land for fiber-huts and cross-connect facilities.
- Public sector involvement in determining types of customers served, time frames, and financial commitments is minimal.
- Private provider invests in design, build out and operation of network with cooperation of public sector.

4.7 Service Provider input: Service providers are requested to offer commentary regarding their interest in joining CLW in any of the options 1-5. It is understood that service providers may be interested in some, none or all of the options listed above.

4.8 Priorities: Interested service providers should respond to each of the following desired features of a public-private partnership with CLW.

1) Services up to and including gigabit connections:
   a. Top priority is to provide ubiquitous access to all citizens beginning with community anchor institutions, followed by business and commercial entities, and lastly by residential users. Ubiquitous access means the provider will not discriminate against any class or locale or type of user within the categories listed above. This includes offering services to various content providers and providers of other services on an equal access basis.
   b. As previously mentioned, medical facilities are top priority closely followed by Educational institutions including K-12 and Higher Education, Public Safety, and Emergency Services.
   c. The second priority relates to business and commercial users including prospective business considering relocating or expanding business in the CLW service area.
   d. The last priority is anticipated to be residential users due to the higher demand requirements of both manpower and funding. However, CLW would entertain re-
prioritizing residential users if the interested service providers have operational business and engineering processes in place to easily provision and support new residential users.

e. CLW seeks to have innovative services offered over the combined public-private infrastructure. CLW desires for those services to be IP based.

f. CLW anticipates only having one (1) service provider provision services over its network and that one provider deliver multiple services. However, CLW is open to having multiple service providers participating in the proposed network if there is a strong business case for this type of model for CLW and its providers.

g. Provide gigabit Internet, voice and video services over the proposed network but not limited to those services alone.

h. Provide a flexible infrastructure for future proofing the network and designed a business relationship flexible enough to support future services not yet delivered.

2) Cost arrangements:

a. Provide pricing up to and including gigabit services at rates not currently available to the citizens of Clarksville and customers of CLW.

b. Provide a financial arrangement whereby CLW and the select service provider(s) share risk including investment and operations and rewards in greater community satisfaction and income necessary to support the investments.

c. Costing information may be separately provided in Section 5.

3) Reliability:

a. CLW seeks providers who are willing to play a part in the design of the fiber network related to its expansion so that it operates with high availability, redundancy, and maintainability.

b. CLW seeks a network that has built-in diversity and fail-safe mechanisms.

4) Security:

a. CLW seeks a partner(s) that offers cyber security capabilities for internal requirement including support for the existing SCADA implementation.

b. CLW seeks a partner(s) that offers security capabilities for external customers including the previously mentioned anchor institutions. These capabilities must be consistent with securing medical records, financial records, and other important information.

4.9 CLW contribution to proposed partnership: CLW presently serves approximately 4,500 residences and businesses within the Clarksville city limits, providing electricity, water, and wastewater treatment services. The current CLW fiber core network was completed on June 2016. The CLW network consist of:

1) 16+ Miles, 288 Strands, Excess Capacity
2) Redundant Rings, Designed for Reliability
3) Self-Healing Features
4) Connected to CLW Facilities
a. 4 Electric Subs &
b. 1 SWPA Grid Tie Sub (Wireless)
c. Main Office
d. Operations Center
e. West Water Tower
f. Water Treatment
g. Pollution Control
h. Wireless Communications to Water Tower

5) Connected to the Johnson County Courthouse, Downtown Clarksville
   a. Free public Wi-Fi is now available on the courthouse square.
      i. A map of the existing network is shown on a following page.

4.10 Additional CLW contribution to proposed partnership: CLW will work closely with the selected partner(s) to facilitate interaction including permitting, pole connection, etc., in pursuit of commencing services. See diagram of current network below:

4.11 See diagrams attached:
   a) CLW fiber currently deployed
   b) CLW diagram of 288 fibers
SECTION 5, SUBMISSION REQUIREMENTS:

5 RFQ submission overview:

5.1 Each respondent is requested to submit the following documents in addition to responding to the RFQ: a) Letter of Transmittal indicating their level of interest, and b) Financial Model/Assumptions document:

a) Letter of transmittal indicating their level of interest. The letter should indicate a minimum the following:
   - Organizational experience in public-private partnerships/ventures.
   - Staffing capacity and qualification to support a public-private partnership/venture.
   - Vendor references from municipal governments.

b) Financial model or assumptions (separate document to be redacted from RFQ response)
   - Financial information
     - Description of providers preferred business model for a public – private partnership
     - Detail of key assumptions
     - Definition of CLW and provider’s responsibilities
     - Proposed pricing structures
     - Financial obligations partner expects of CLW
     - Risk assessment
   - Exceptions or notes of explanation.

End notes:

Connected Clarksville
Splicing Started 2/8/2016 ended May 5/5/16
Electric SCADA – Started 12/2016 Completed 6/10/16
Estimated Project Completion entire Project 6/17/2016

- New Clarksville Business Park
- Blue Dotted Line - Represents rings for reliability, if there is a break in the network is will reroute traffic automatically
- Red Arrows – Represent connections to the internet backbone, outside world
- Aqua Boxes – CISCO Routers & Firewalls
- Purple Boxes – Calix E7 Switches
1 CABLE = 24 TUBES X 12 FIBERS = 288

7 TUBES DEDICATED = 84 FIBERS DEDICATED & 17 TUBES FOR FUTURE USE = 204 FIBERS

CLW – 2 Red & 1 Black Tubes(s) = Utility Use, 36 Fibers

PS - Dk Gray Tube Inside (1) = Public Safety/Transportation, 12 Fibers

GOV - Orange Tube Inside (1) = Governmental, 12 Fibers

HC – White Inside(1) = Healthcare Use, 12 Fibers

EDU - Purple Tube/Outside (1) = Education Use, 12 Fibers

All Other Tubes (178) = Business, 204 Fibers