

## **EXHIBIT A – SCOPE OF WORK**

Lake Arthur Municipal Schools is soliciting proposals for a fiber optic wide area network solution for key locations identified in the Scope of Services below.

### **SCOPE OF SERVICES**

Lake Arthur Municipal Schools wishes to compare Lit Services for Wide Area Network (WAN). The current WAN for the specific locations listed provides 50 MBPS.

<b>Location Name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Address</b>
<b>LAKE ARTHUR MIDDLE SCHOOL</b>	32.9974001	-104.3639316	<b>700 BROADWAY LAKE ARTHUR, CHAVES, NM 88253</b>
<b>LAKE ARTHUR ELEMENTARY SCHOOL</b>	32.9974001	-104.3639316	<b>700 BROADWAY LAKE ARTHUR, CHAVES, NM 88253</b>
<b>LAKE ARTHUR HIGH SCHOOL</b>	32.9974001	-104.3639316	<b>700 BROADWAY LAKE ARTHUR, CHAVES, NM 88253</b>

Lake Arthur Municipal Schools has fiber optic WAN connections to the sites indicated by \* and these should be considered the 'point of entry' to the existing WAN for connecting all other sites on this list.

In each building, respondent must run infrastructure or service to an existing network closet designated by Lake Arthur Municipal Schools , identified by site walk-through.

The new service is being planned to begin on July 1, 2018.

Lake Arthur Municipal Schools is seeking is a fully managed, lit fiber service WAN to these locations

All options can include special construction or one-time E-rate eligible non-recurring costs as well as E-rate eligible recurring circuit costs. Based on the bids and both a short term and long term cost effectiveness analysis, Lake Arthur Municipal Schools will determine which, if any, of the lit service, leased dark fiber, IRU, self-provisioned fiber is the most cost effective, long term solution that meets the current and expected future needs of the school district. Weighted consideration for integration into the current district owned fiber optic WAN, and existing maintenance processes for that WAN, will be made during the evaluation process. The specifications related to each solution option are as follows.

**Leased Lit Fiber:**

The Lake Arthur Municipal Schools must have dedicated Lit Transport Bandwidth throughput (upload and download) of **50 Mbps up to 200 Mbps**, with Service Level Agreement (SLA) guarantees between the designated endpoints. The solution must be scalable from **50 Mbps to 200 Mbps** cost increments. **All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism.**

*Lit Service Price Proposal*

The "Lit Pricing Sheet" worksheet in the attached spreadsheet includes columns for respondents to provide **50 Mbps up to 200 Mbps** between the hub and the various endpoints. Price quotes are requested for **12 month, 24 month, 36 month**, terms of service. Prices should be all inclusive. All inclusive in this case means, including all **special construction or non-recurring costs (NRC)** (see description in later section) required by the vendor to commence service and all **monthly recurring costs (MRC)** should be included in the requisite columns of the pricing sheets. No increased pricing will be allowed during the term of the quoted special construction/NRC and MRC rate in each pricing cell of the spreadsheet.

*Additional Description*

Each lit service response must also include description of proposal, SLA, timeline, network diagram, demarcation, references, and Connect America Fund status as described in later sections.

**Internet Access & Transport Bundled:**

This is for non-fiber services provided over third party networks that include commercial Internet Access service.

**Transport Only - No ISP Service Included:**

*Transport Only- No ISP Service Included option. Applicant desires an XG point to point service be quoted as a comparative option to self- provisioning. This is **any service wired or wireless delivered over a third party owned (Service Provider or other) network that meets the following bandwidth, latency, jitter, packet loss, contention and other Service Level Agreement specifications.***

*Fiber Network Availability: the provider will make all reasonable efforts to ensure 99.99% network availability of each circuit.*

Lit and Operations proposals only: Frame/packet loss .25% commitment

Lit and Operations proposals only: 25 ms Network Latency Commitment

Lit and Operations proposals only: 10 ms Network Jitter Commitment

There is no right of provider to limit or throttle the capacity of the circuit at any time for *Any reason*

**Internet Access: ISP Service Only:**

This is for commercial Internet Access service.

*Remember: This does not contain any type of transport, including leased lit fiber. Do not use this for a leased lit fiber solution.*

*Fiber Specification*

*Maintenance*

The Lake Arthur Municipal Schools requires on-going maintenance of the fiber on all Leased Dark Fiber, IRU, or self provisioned fiber solutions. Maintenance responses are required as follows:

- All dark fiber responses (lease and IRU) require maintenance as part of the response, even if maintenance is subcontracted out to a third party. In the case of the third party maintenance, the respondent must hold and manage the subcontract and is ultimately responsible for the SLA. For a leased dark fiber and IRU solution, it is assumed that the Fiber Network is part of a more comprehensive fiber infrastructure of the service provider. The respondent will include only the portion of maintenance that is required to support the v fiber segments versus overall network maintenance. If the fiber serves multiple customers, the cost of maintenance should be shared among all the recipients.
- If maintenance cannot be quoted for entire time span of the IRU, please include alternate time span quote as well as explanation for the shorter time span.
- As part of the maintenance contract for an IRU, the fiber owner (not the district) must claim responsibility for repairs in the event of a catastrophic cut or relocate.
- Self provisioned fiber construction responses are not required to include a maintenance response. Maintenance on self provisioned fiber may be bid as a stand-alone service, however, "bundled" holistic solutions will be preferred, as outlined in the evaluation criteria. Responses for maintenance on self provisioned fiber must include scheduled routine maintenance as a monthly cost as well as unscheduled break/fix maintenance as an annual time and material cost estimate with a guaranteed SLA response time for repairs. Explanation of how the annual scheduled and unscheduled maintenance was estimated should be included.

Respondent shall maintain the applicable fiber seven days per week, twenty-four hours per day. Upon notification from the district of a malfunction relating to the applicable fiber, respondent shall respond to such malfunction within two (2) hours and thereafter proceed to correct the

malfunction with reasonable diligence.

When pricing maintenance, the respondent should include an overview of fiber maintenance practices including:

- Routine maintenance and inspection,
- Scheduled maintenance windows and scheduling practices for planned outages,
- Handling of unscheduled outages and customer problem reports
- What service level agreement is included, and what alternative service levels may be available at additional cost,
- What agreements are in place with applicable utilities and utility contractors for emergency restoration,
- Repair of fiber breaks,
- Mean time to repair,
- Replacement of damaged fiber,
- Replacement of fiber which no longer meets specifications,
- Policies for customer notification regarding maintenance,
- Process for changing procedures, including customer notification practices,
- Process for moves adds and changes,
- Process for responding to locate requests.

#### *Equipment, Installation, and Management*

The Lake Arthur Municipal Schools requests that the respondent provide a quote for an annual management cost to oversee the technical support of the WAN once the leased dark, IRU, or self provisioned fiber is available for service. Include price details in the "Management" worksheet of the spreadsheet attached for equipment necessary to place the circuits into service at different bandwidth levels, installation and configuration of equipment, and annual management cost of the equipment/circuits. Management on leased dark, IRU, or self provisioned fiber may be bid as a stand-alone service, however, "bundled" holistic solutions will be preferred, as outlined in the evaluation criteria.

The annual management cost should include provision of:

- Procurement of necessary hardware to light the fiber path(s)
- Installation and configuration of equipment to put circuits into service
- Network monitoring on a 24x7x365 basis
- Creation and communication of service tickets to Lake Arthur Municipal Schools escalation list
- Incident response with timing standards that are in accordance to a Respondent provided service level agreement that meets general industry standards
- Other industry standard provisions of broadband service technical support

- Re-provisioning of equipment necessary to put circuits back into service after an outage

### **Description of Proposal**

Respondent will provide a description of their proposal for all lit services, leased dark, IRU, or self provisioned fiber construction projects. Description will include an overview of the proposal, any deviations from the requested architecture, design or requirements, assumptions made, other detail Lake Arthur Municipal Schools may find useful or necessary (or could differentiate the solution from a competing proposal).

### **Service Level Agreement**

Respondent will provide a description of the proposed services and service levels provided with the lit fiber or dark fiber maintenance and management responses. The respondent will provide a proposed Service Level Agreement (SLA) with the RFP response. The proposal may include, but not be limited to, the following services.

- Lit Fiber Network Availability: the provider will make all reasonable efforts to ensure 99.9% network availability of the applicable fiber.
- Network Operations Center: Solution will provide customer support functions including problem tracking, resolution and escalation support management on a 24x7x365 basis. Customer has the right and is encouraged to call concerning any problems that may arise relative to its connection with Vendor provided services.
- Trouble Reporting and Response: Upon interruption, degradation or loss of service, Customer may contact Vendor by defined method with a response based on trouble level. Upon contact from the Customer, the Vendor support team will initiate an immediate response to resolve any Customer issue. Customer will receive rapid feedback on trouble resolution, including potential resolution time.
- Escalation: In the event that service has not been restored in a timely manner, or the Customer does not feel that adequate attention has been allocated, the Customer can escalate the trouble resolution by request. A list of escalation contacts will be provided when implementation schedule is completed.
- Resolution: The Customer will be notified immediately once the problem is resolved and will be asked for verbal closure of the incident.
- Trouble Reporting, Escalation and Resolution: A detail trouble reporting, escalation and resolution plan will be provided to the district.
- Measurement: Vendor stated commitment is to respond to any outage within two (2) hours and a four (4) hour restoration of service. Time starts from the time the Customer contacts Vendor and identifies the problem. Credits for Outages of shortage will be identified.
- Reports: Upon request, an incident report will be made available to the Customer within five (5) working days of resolution of the trouble.
- Link Performance per segment: The service will maintain the proposed Link Performance throughout the term of the contract.

### **Timeline**

For each response, respondents must include a construction roadmap timeline for all sites. Preference is given to responses with a service start for all sites on July 1, 2018. A secondary

preference will be given to responses with a service start for all sites July 1, 2018. All timelines will be considered and evaluated based on these preferences. Include how the timeline changes per site given an earlier or later start date. Actual start date on a self provisioned fiber construction project is dependent on the timing of the E-rate funding commitment decision letter.

### **Demarcation**

All solutions whether lit fiber, leased dark fiber, dark fiber IRU or self provisioned fiber construction must terminate service or infrastructure to an existing network closet inside of the designated demarc address specified during the site walk-throughs provided in the timeline above. Solutions bringing service to the property line but not inside of the demarc address are not acceptable.

All solutions whether lit fiber, leased dark fiber, dark fiber IRU or self provisioned fiber construction must have a connection, or point of entry, into the existing district fiber optic WAN as indicated previously, alternatives are available through discussions with the district.

Respondent must specify your expected demarc setup included in base fees, e.g. fiber shelf with set-top box CPE and fiber or Cat6a handoff.

### **Network Diagram**

For each response, respondents must include a network diagram displaying the paths to be used to serve each endpoint. For self-provisioned fiber responses, respondents must include identification of aerial vs. buried fiber segments, detailed drawings showing fiber and equipment locations, and any other pertinent details.

### **References**

For each response, respondent must provide 3 references from current or recent customers with projects equivalent to the size of Lake Arthur Municipal Schools. If respondent responds to more than one option (e.g. lit fiber service as well as leased dark fiber), provide 3 references for each.

### **Connect America Fund Consideration**

For each school site, the respondent must note whether the address is included in a region where the respondent has already received (or is pending receipt of) funding via the Connect America Fund. In these cases, mention how the NRC or special construction charges have been adjusted considering the other source of funding.

### **Special Construction and Non-recurring Cost**

Respondents providing lit fiber proposals which require an upfront payment may include a special construction cost or non-recurring cost. This upfront payment is considered **special construction** if any new fiber is being installed. If new fiber installation is not necessary, the payment is considered a **non-recurring cost** and must be entered into the pricing sheet accordingly.

New fiber special construction charges for lit service, leased dark, IRU, or self provisioned fiber projects as defined by the order include construction, design, engineering and project management. The applicant requests that the respondents consider allowing Lake Arthur Municipal Schools to pay the non-discount share (share of special construction costs that are the responsibility of the applicant) to be paid in equal annual installments over the Three years from Funding Year 2018 to Funding Year 2019 inclusive. Responses must include agreement or non-agreement of this request.

**Required Notice to Proceed and Funding Availability**

Lake Arthur Municipal Schools will follow the purchasing policies of the Lake Arthur Municipal Schools Board of Education and requirements and procedures of the FCC's E-rate program as administered by the Universal Service Administrative Company to be eligible for all available funding. □ The implementation of any associated contracts resulting from this competitive bid process will be dependent on the district's issuance of a written Notice to Proceed. E-rate funding notification alone will not signify Notice to Proceed. The district will have the right to allow the contract to expire without implementation if appropriate funding does not come available.

**E-rate Modernization Order Note**

Special construction and service eligibility for reimbursement have changed starting funding year 2016. See the Federal Communications Commission E-rate modernization order 2 (WC Docket No. 13-184) (<https://www.fcc.gov/document/fcc-releases-order-modernizing-e-rate-21st-century-connectivity>) for more information.