

# Request for Proposal: Self-Provisioned Fiber Project

Jackson County Memorial Library

411 North Wells Street

Edna, TX 77957

*Contact Information:*

Michelle Darilek  
Jackson County Texas, Auditor  
[M.Darilek@co.jackson.tx.us](mailto:M.Darilek@co.jackson.tx.us)

Notice is hereby given that the JACKSON COUNTY MEMORIAL LIBRARY will accept proposals from qualified vendors for materials for e-rate eligible internal connections.

Specifications and proposal documents may be obtained from JACKSON COUNTY MEMORIAL LIBRARY, ATTN: **Michelle Darilek, M.Darilek@co.jackson.tx.us** Emailed Proposals in .PDF format must be returned on or before **March 18, 2020**. Proposal email subject should be, **“Proposal for Self-Provisioned Fiber”**.

All work pursuant to this contract shall be contingent upon successful E-Rate funding.

In the event of lesser funding, the JACKSON COUNTY MEMORIAL LIBRARY may accept all or parts of this proposal, at the discretion of the JACKSON COUNTY MEMORIAL LIBRARY. There shall be no penalty or removal charges incurred by the Library.

All Responding vendors must be Universal Service Fund (USF), E-Rate vendors with a current USAC issued 498 ID (Formerly Service Provider Identification Number (SPIN)).

Note: It is the total responsibility of the Vendor to return proposals to JACKSON COUNTY MEMORIAL LIBRARY by the required date and time.

The JACKSON COUNTY MEMORIAL LIBRARY reserves the right to accept or reject any or all proposals or any items therein, to waive any irregularities or informalities, and to contract in the best interests of the Library. Proposals which do not meet all aspects of the specifications may be rejected on that basis.

While you are encouraged to submit "value engineering" alternates, please be certain to adhere to the specifications as closely as possible for the base response. All deviations in your response shall be clearly delineated, and should be proposed as alternates.

## REQUEST FOR PROPOSAL

### *SPECIFICATIONS*

Following are the proposal specifications for this Request for Proposal.

### *PREPARATION OF PROPOSALS*

1. Before submitting a proposal, each proposer is expected to thoroughly examine the actual conditions (if applicable), specifications, general conditions, and all other related contractual documents. Failure to do so will be at the proposer's risk, and will not bar the proposer's obligation to perform if a contract is awarded pursuant to this RFP. Each proposer must satisfy himself/herself by personal examination and by such other means as he/she may prefer as to the actual conditions and requirements under which the contract will be performed.
2. It is the total responsibility of the proposer to return the proposal to the email called for, by the deadline. No proposal or modifications received after the time specified in this RFP will

be considered for award.

3. Changes, additions, or any other modifications which are not specifically called for in the proposal may cause the proposal to be rejected as not being responsive to the RFP.
4. All proposals shall be signed in longhand in ink in all indicated areas. Failure to sign proposal documents or initial corrections or proposal documents may cause rejection of the proposal.
5. Unless otherwise requested by the JACKSON COUNTY MEMORIAL LIBRARY, all items supplied pursuant to this proposal shall be new and unused.
6. Proposals may be submitted for any or all of the projects described herein.

### ***PRICES***

1. All prices and notations must be typed or written in ink. Verify all prices before submission, since they may not be corrected after proposals are opened. No oral or telegraphic modification will be considered.
2. This contract is for products and services to be secured during the FCC's E-Rate Year 2020-21 Calendar Year. July 1, 2020 through June 30, 2021. Therefore, all prices shall remain firm and in effect from July 1, 2020 until June 30, 2021.

### ***ADDENDA AND CHANGE ORDERS***

1. If any proposer finds discrepancies in, or omissions from the proposal documents, he/she may submit an emailed request for clarification or correction thereof. A copy of the request for clarification and the response thereto will be emailed to all proposers and must be submitted before the proposal deadline.
2. No changes in the proposal documents will be made by JACKSON COUNTY MEMORIAL LIBRARY staff when notice of said change in proposal documents is received by the JACKSON COUNTY MEMORIAL LIBRARY office less than two (2) business days before the formal proposal due date.

### ***ACTUAL CONDITIONS***

1. VENDOR shall be responsible for examining actual site(s) if necessary, and certify all measurements, specifications, and conditions affecting the work to be performed at the site(s).
2. By submitting a proposal, VENDOR warrants that they have made such site examination(s) as they deem necessary as to the condition of the site(s), its accessibility for materials, workers, and utilities, and ability to protect existing surface or subsurface improvements.
3. No claim for allowance of time or money will be allowed as to such matters for any other undiscovered conditions on the site(s).

### ***DELIVERY/RISK OF LOSS OR DAMAGE***

1. The proposer is required to absorb all delivery costs. The JACKSON COUNTY MEMORIAL LIBRARY shall not be liable for any delivery, storage, demurrage, packing, or freight charges involved in the shipment of the item(s).
2. The Vendor shall be responsible for all transportation, loading, and unloading off materials or equipment associated with the project.
3. The Vendor agrees to assume all risk of loss or damage until the project is accepted by JACKSON COUNTY MEMORIAL LIBRARY.

## *LIABILITIES*

1. The Vendor or Proposer shall save, defend, hold harmless, and indemnify the JACKSON COUNTY MEMORIAL LIBRARY against any and all liability, claims, and costs of whatsoever kind and nature for injury to or death of any person or persons, and for loss or damage to any property occurring in connection with or in any way incident to or arising out of the occupancy, use, service, operations, or performance of work or supply of material under the terms of this contract, resulting in whole or in part from the negligent acts or omission of Vendor, and subcontractor, or any employee, agent, or representative of Vendor or subcontractor.

2. The Vendor or Proposer shall hold the JACKSON COUNTY MEMORIAL LIBRARY, its officers, agents, servants, and employees harmless from liability of any nature or kind, including the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles, or appliances finished or used under this proposal. The Vendor agrees to defend, at his own expense, any and all actions brought against the JACKSON COUNTY MEMORIAL LIBRARY or himself because of unauthorized use of such articles.

## *INSURANCE*

**Workers' Comp & Employer's Liability** (contractor must comply with requirements of Tex. Labor Code § 406.096 and 28 TAC § 110.110). In addition, insurance certificate must provide:

- a. Policy Limits --- "Statutory Limits" box should be checked on certificate & coverage must comply with rules of Texas Workers' Compensation Commission applicable to public construction contracts.
- b. Waiver of Subrogation against the Entities and its officers, agents, and employees shall be included.
- c. If any of the Contractor's employees engaged in hazardous work on the project under this contract are not protected under the Worker's Compensation Statute, then the Contractor shall provide adequate employer's general liability insurance for the protection of this class of employees.

1. The vendor agrees to maintain insurance adequate for protection from claims under Workers Compensatory Acts, and from claims for damages for personal injury, including death and damage to property, which may arise from operations under the contract. A Certificate of Insurance should accompany the proposal submission. The requirements are as follows:

Commercial General Liability

General Aggregate 2,000,000.00

Products/completed operations aggregate 2,000,000.00

Personal and advertising injury 1,000,000.00

Each occurrence 1,000,000.00

Fire Damage 300,000.00

Medical expense 10,000.00

Commercial Automobile Liability Insurance

Bodily injury (per accident) 1,000,000.00

Worker's Compensation Coverage

Each Accident 1,000,000.00

Disease - Policy Limit 1,000,000.00

Disease - each employee 1,000,000.00

A copy of Certificate of Insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWC-83, or TWC-84), showing statutory worker's compensation insurance coverage for the person's or entity's employees providing services on a project is required for the duration of the project. Duration of the project includes the time from the beginning of the work on the project until the contractor's / person's work on the project has been completed and accepted by the library.

2. The VENDOR shall not allow any Subcontractor, employee or agent to commence work on this contract or any subcontract until the insurance required of the VENDOR, subcontractor, or agent has been obtained.

### ***DEFAULT BY PROPOSER***

1. In case of default by proposer, the JACKSON COUNTY MEMORIAL LIBRARY may procure the articles or services from other sources and may deduct from any moneys due, or that may thereafter become due to the Vendor, the difference between the price named in the contract or Purchase Order and the actual cost thereof to the JACKSON COUNTY MEMORIAL LIBRARY. Prices paid by the JACKSON COUNTY MEMORIAL LIBRARY shall be considered the prevailing market price at the time such purchase is made.

2. Default by the proposer may be sufficient cause to remove proposer from the approved Vendor list for subsequent business.

3. Periods of performance may be extended if the facts as to the cause of delay justify such extension in the opinion of the Purchasing Agent.

### ***ATTORNEY FEES / LEGAL FORUM***

1. In the event that suit or action is brought by either party in this contract to enforce any of the rights the vender, the prevailing party shall be entitled to recover such additional sums as the court may adjudge reasonable attorney fees.

2. The parties hereby agree that any legal dispute arising from this agreement shall be settled in the appropriate jurisdiction of JACKSON COUNTY, State of Texas.

### ***ASSIGNMENT OF CONTRACT***

1. The Vendor shall not assign the whole or any part of this agreement or any payment due or to become due thereunder, without the written consent of the JACKSON COUNTY MEMORIAL LIBRARY and all sureties who have executed bonds on behalf of the Vendor in connection with this contract.

### ***WARRANTY***

1. In addition to all warranties which may be prescribed by law, the item(s) shall conform to specifications, drawings, and other descriptions and shall be free from defects in materials or workmanship.

2. The Vendors warrants that, to the extent the item(s) are not manufactured pursuant to detailed designs furnished by JACKSON COUNTY MEMORIAL LIBRARY, they will be free from defects in design.

3. Such warranties for any equipment provided, including warranties prescribed by law, shall accrue to JACKSON COUNTY MEMORIAL LIBRARY, its successors, assigns, and customers, and to users of the items, for a period of one (1) year, after delivery, or such longer period as may be prescribed by law offered by manufacturer.

### ***AWARD OF CONTRACT***

1. JACKSON COUNTY MEMORIAL LIBRARY plans to accept the proposal that is the best value for the library. JACKSON COUNTY MEMORIAL LIBRARY does not purchase solely on the basis of low bid; however, pricing will be the heaviest weighted criteria considered.

2. The JACKSON COUNTY MEMORIAL LIBRARY reserves the right: (1). to award contracts received on the basis of individual items or groups of items, or on the entire list of items; (2). to reject any or all proposals, or any part thereof; (3). to waive any informality or irregularity in the proposal; and (4). to accept the proposal that is in the best interest of the JACKSON COUNTY MEMORIAL LIBRARY, price and other factors considered.

3. The JACKSON COUNTY MEMORIAL LIBRARY may contract with an acceptable party who is one of the three (3) lowest responsible proposers for the procurement, maintenance, or both, of electronic data-processing systems and supporting software in any manner the JACKSON COUNTY MEMORIAL LIBRARY deems appropriate.

4. A Purchase Order or written notice of award mailed to or otherwise delivered to the vendor with the time specified shall create a binding contract without further action by either party.

### ***OSHA COMPLIANCE / MATERIAL SAFETY DATA SHEETS***

1. The article(s) covered in this proposal must conform to the safety orders of the Division of Occupational Safety and Health of the State of Texas, and the Federal Occupational Safety and Health Act, whichever is more restrictive.

### ***WITHDRAWAL OF PROPOSALS***

1. Any proposer may withdraw his or her proposal(s) personally or by emailed request at any time prior to the scheduled due date and time for receipt of proposals.

### ***INSPECTION / ACCEPTANCE***

1. All items provided under this proposal shall be subject to inspection and test by the JACKSON COUNTY MEMORIAL LIBRARY. All items must meet or exceed proposal specifications, and/or, at a minimum, be merchantable per the definition of the Texas Commercial Code. Acceptance shall include (as applicable) complete delivery of all components, installation, training, testing, and other requirements of the contract, as verified by the JACKSON COUNTY MEMORIAL LIBRARY.
2. In case any supplies or lots of supplies are defective in material or workmanship or otherwise not in conformity with the requirements of this contract, the JACKSON COUNTY MEMORIAL LIBRARY shall have the right either to reject them or to require their correction. Supplies or lots of supplies which have been rejected or required to be corrected shall be removed, or if permitted or requested by the JACKSON COUNTY MEMORIAL LIBRARY, corrected in place and at the expense of the Vendor promptly after notice, and shall not thereafter be tendered for acceptance unless the former rejection or requirement of correction is disclosed.
3. If the Vendor fails to promptly replace or correct such supplies or lots of supplies, the JACKSON COUNTY MEMORIAL LIBRARY either (1) may, by contract or otherwise, replace or correct such supplies and charge to the Vendor the cost occasioned the JACKSON COUNTY MEMORIAL LIBRARY thereby; or (2) may terminate this contract for default as provided in the clause of this contract entitled "Default."
4. Unless the Vendor corrects or replaces such supplies within the delivery schedule, the JACKSON COUNTY MEMORIAL LIBRARY may require the delivery of such supplies at a reduction in price which is equitable under the circumstances.
5. Except as otherwise provided in this contract, acceptance shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud.

### ***PERMITS AND LICENSES***

1. In connection with the furnishing of materials, articles, or services listed herein, the Vendor and all of his or her employees shall secure and maintain in force such licenses and permits as are required by law.
2. All operations, materials, handling, transportation, labeling, and production shall comply with all Federal, State, and Local laws

### ***INVOICES AND PAYMENTS***

1. Unless otherwise specified, the Vendor shall render invoices in triplicate for materials delivered or services performed under this proposal to the JACKSON COUNTY MEMORIAL LIBRARY. All invoices and packing lists must reference the JACKSON COUNTY MEMORIAL LIBRARY Purchase Order number.
2. Terms are net 30 days for the portion to be paid by the Library following acceptance and satisfactory operation of network cabling, equipment and services. The JACKSON COUNTY MEMORIAL LIBRARY is not responsible for portion and payment terms as set out by the Schools & Libraries Corporation for E-Rate.

### ***PROPOSAL DOCUMENTS AND SAVINGS CLAUSE***

1. The complete proposal packet may include, as applicable, the Request for Proposal, General Conditions, Specifications, Addenda, or other supplementary information. If this
- Page | 7

proposal has been transmitted or received via computer or electronic media, proposer warrants that the proposal submitted is a verbatim copy of hard copy proposal on file.

2. Any of the above shall be interpreted to include all of the provisions of the other documents as though fully set out therein. The Vendor should fully acquaint himself or herself with the conditions and terms affecting the performance of this contract.

3. Submission of a proposal shall be taken as prima facie evidence of compliance with this provision.

4. The Vendor agrees that in the event any provision(s) specified herein are finally held, or determined to be, illegal or void, or as being in contravention of any applicable law, the remainder of the agreement shall remain in full force and effect.

### ***REFERENCES***

1. Each proposal must include three school or library references. Each reference should list a contact name, contact title, contact phone number, and contact school or library. Also include an email address if available.

### ***SITE VISIT***

1. A non-mandatory site visit will be conducted at **10:00Am.** on **March 3, 2020** at **411 N. Wells, Room 201, Edna, TX 77957**

### ***SCOPE OF SERVICES***

Jackson County Memorial Library (JCML) is requesting proposals for self-provisioned fiber construction and for delivery of wide area network (WAN) services to the library.

- Service is expected to be delivered from the Proposers Point of Presence (POP) in Edna Texas.
  - Demarcation Point: Proposer POP
- Service is expected to be delivered to the eligible service location Jackson County Memorial Library located at 411 North Wells Street, Edna, TX
  - Demarcation Point: Network Closet

JACKSON COUNTY MEMORIAL LIBRARY is seeking bids for self-provisioned fiber, as well as cat 2 equipment, Internet service, and maintenance. All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism, be a registered vendor with USAC, and have a USAC issued 498 ID (formerly Service Provider Identification Number-SPIN).

1. The bid is for self-provisioned (Library owned) fiber to the designated location and POP and special construction charges for the self-provisioned fiber.

2. For self-provisioned solutions, JACKSON COUNTY MEMORIAL LIBRARY will need Fiber to Copper (RJ-45) media converters to light the fiber for Ethernet utilization

3. Quoted separately Internet Access from POP to JCML for symmetrical connections of 100Mb, 200Mb, 500Mb, 750Mb, & 1000Mb. All installation and monthly recurring costs to be included for the Internet service.

4. Ongoing maintenance/support for self-provisioned (JCML owned) fiber installation.

JACKSON COUNTY MEMORIAL LIBRARY will consider traditional network designs or proposals that, in accordance with E-rate guidance, maximize cost effectiveness. Respondents should clearly illustrate proposed network design and construction routes. JACKSON



COUNTY MEMORIAL LIBRARY is not advocating or mandating any preconceived network design or construction route and leaves this decision up to the Vendor to present their best solution while recognizing the cited termination locations.

In E-rate terminology, **special construction** refers to the upfront, non-recurring costs associated with the installation of new fiber to or between eligible entities. If no new fiber is being installed, then any installation costs are considered standard **non-recurring costs (NRC)**. Applicants may seek funding for special construction charges in connection with self-provisioned fiber. Special construction charges eligible for Category One support consist of three components:

1. construction of network facilities
2. design and engineering
3. project management

Note: The term "special construction" does not include network equipment necessary to light fiber, nor the services necessary to maintain the fiber. Charges for network equipment and fiber maintenance are eligible for Category One support as separate services, but not as special construction,

All options can include special construction or one-time E-rate eligible non-recurring costs as well as E-rate eligible recurring circuit costs. To the extent that the winning service provider installs additional strands of fiber for future business ventures, the winning service provider assumes full responsibility to ensure those incremental costs are allocated out of the special construction charges to the library in accordance with FCC rules and orders. If, after the issuance of the FCDL, USAC or the FCC determines that the winning service provider did not cost allocate those charges associated with the additional strands, JACKSON COUNTY MEMORIAL LIBRARY will not be responsible for reimbursing the winning vendor and the winning vendor will assume all responsibilities deemed ineligible by USAC. For examples of cost allocation, please see document in Appendix C as prepared by the State E-rate Coordinators' Alliance (SECA).

Based on the bids and both a short term and long-term cost effectiveness analysis, JACKSON COUNTY MEMORIAL LIBRARY will determine which, if any, of the proposed solutions or some combination of solutions is acceptable. The specifications related to such solution option are as follows.

### *Self-Provisioned Fiber Construction*

JACKSON COUNTY MEMORIAL LIBRARY requests that respondents propose design and pricing for a self-provisioned build of new fiber between the POP and the library. We request a minimum of 6 fiber strands to support fiber terminal equipment that utilizes redundant transmit and receive fibers and 2 additional for immediate recovery for a broken fiber or connector at patch or connector panel. (Please see Appendix C for guidelines on cost allocation). JACKSON COUNTY MEMORIAL LIBRARY desires a fully "turn-key" project so respondents should provide explanation for the library's involvement in the process including ownership and sourcing of permits, etc. When submitting a self-provisioned proposal, the respondent is required to complete the pricing matrix located in Appendix A of this RFP. The solution should include all costs related to the deployment of the proposed circuit.

#### Self-Provisioned Fiber Construction Specifications & Project Management:

- JACKSON COUNTY MEMORIAL LIBRARY's specifications for a newly constructed fiber circuit are contained in the Appendix C: OSP Installation Specifications.
- Selected respondent and its subcontractors will provide all project management to accomplish the installation of all project work as outlined in Appendix B.
- Project management should include all necessary paperwork and permits including but not limited to rights of way, easements, etc.
- The respondent will provide engineer(s), certified on selected fiber system specifications and procedures to manage all phases of the project as outlined in this proposal. This includes ordering and managing the bill of materials as outlined in Appendix B, directing and managing cable placement and restoration, directing and managing splicing crews and providing detailed documentation at the end of the project.
- Selected respondent and its subcontractors will develop a project management plan, which will include a milestone chart. The milestone chart will outline a critical path events and then track these with the appropriate agency/organization whether; selected respondent, subcontractor or the library.

#### *Maintenance for Self-Provisioned Fiber Projects*

Respondent may offer maintenance services either themselves or through 3rd party subcontractors. If respondent intends to use 3rd party subcontractors to deliver a part or all of the service, this should be clearly indicated in the response

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 by anyone, even if they are not bidding on any fiber service. Please note that respondents submitting a self-provisioned fiber proposal may also bid on maintenance services provided they bid it separately and do not bundle maintenance costs with their fiber proposal. Price quotes are requested for 36-month and 60-month terms of service. Respondents are required to fill out the Self-Provisioned Fiber Maintenance pricing matrix located in Appendix A of this RFP. Responses for maintenance on self-provisioned fiber must include scheduled routine maintenance as a monthly or annual cost as well as unscheduled break/fix maintenance as an annual time and material cost estimate. Explanation of how the annual scheduled and unscheduled maintenance was estimated should be included.

#### *Maintenance Terms and Conditions*

Respondent shall maintain the applicable fiber seven days per week, twenty-four hours per day. Upon notification from the library 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 maintenance practices including:

- Routine maintenance and inspection
- Scheduled maintenance windows and scheduling practices for planned outages
- Marker and handhole inspection and repair

- 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
- Post repair testing
- Replacement of fiber that 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

### *Network Equipment for Self-Provisioned Fiber Projects*

For self-provisioned solutions, JACKSON COUNTY MEMORIAL LIBRARY requests a separate quote for network equipment/media converters to place circuits into service at 1Gbps with a copper/RJ-45 handoff in wiring closet once the self-provisioned fiber is available between POP and JCML.

### *General Terms for All Proposals*

#### *Description of Proposal*

Respondent will provide a description of their proposal for all services and solutions. Description will include an overview of the proposal, any deviations from the requested architecture, design or requirements, assumptions made, and other details JACKSON COUNTY MEMORIAL LIBRARY may find useful or necessary (or could differentiate the solution from a competing proposal).

### *Service Level Agreement*

Respondent will provide description of the proposed services and service levels provided with the services. The respondent will provide a proposed service level agreement (SLA) with the RFP response. The proposal must include a description of the following services and how these services will be measured.

- Fiber Network Availability: the provider will make all reasonable efforts to ensure 99.99% network availability of each circuit.
- Services delivered over third-party networks only:
  - .25% frame/packet loss commitment
  - 25ms network latency commitment
  - 1 Oms network jitter commitment
  - There is no right of provider to limit or throttle the capacity of the circuit at any time for any reason

In addition to the required services, the proposal may include but is not to be limited to the following services:

- Network operation 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 library.
- Measurement: Vendor stated commitment is to respond to any outage within two (2) hours and a twenty-four (24) 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.
- Historical uptime: Provide aggregate uptime statistics for your proposed service in the geographic area encompassing Jackson County Texas.

### *Timeline*

For each response, respondents must include a timeline for bringing all sites online and an explanation of how much they are able to adhere to JACKSON COUNTY MEMORIAL LIBRARY's specified timeline. 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 must terminate service or infrastructure in the demarcation point at each address specified in this FRP. Solutions bringing service to the property line but not to the demarcation point are not acceptable. Respondents must specify specific demarcation setup included in base fees, e.g. wall mounted CPE, rack-mount patch panel, etc.

### *Network Diagram*

For each response, respondent must include a network diagram displaying the paths to be used to serve the library. 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. (See Appendix B of this RFP for more details).

### *References*

For each response, respondent must provide 3 references from current or recent customers (preferably schools or libraries equivalent to the size of JACKSON COUNTY MEMORIAL LIBRARY). If respondent responds to more than one option, provide 3 references for each.

### *Special Construction Information for Form 471 and PIA Review*

All E-rate applications including special construction are subject to detailed questioning during PIA review where the cost of the proposed special construction costs will be reviewed based on the cost of historical fiber builds in the region. Additionally, certain information on necessary special construction is needed to accurately fill out the form 471. Respondents are required to fill out the table in Appendix A. Additionally, respondents are encouraged (but not required) to submit the additional information described in Appendix A that will likely be requested during PIA review. If respondents do not submit this additional information with their bid, and their solution is chosen, they must be prepared to promptly provide that information and any additional information not described in this RFP when requested. Please note that vendors may assist applicants with preparing funding request or responding to PIA questions and may speak directly with PIA reviewers.

### *Required Notice to Proceed and Funding Availability*

JACKSON COUNTY MEMORIAL LIBRARY will follow the purchasing policies of JACKSON COUNTY TEXAS and the State of Texas 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 library's issuance of a written Notice to Proceed. E-rate funding notification alone will not signify Notice to Proceed. The library will have the right to allow the contract to expire without implementation if appropriate funding does not become 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-2-1st-century-connectivity>) for more information.

*RFP Scoring Rubrics*

*Self-Provisioned Fiber*

% Weight	Criteria
30	E-rate eligible recurring and one-time circuit costs*
20	Cost of Ineligible Services
15	Compatibility with Existing Network
15	Personnel Qualifications, Experience, and Availability
20	Project Approach and Management

*Fiber Maintenance for Self-Provisioned solutions*

% Weight	Criteria
40	E-rate eligible recurring and one-time costs*
30	Response times proposed by service provider
30	Provider references

*Network Equipment for Self-Provisioned solutions*

% Weight	Criteria
40	E-rate eligible costs*
30	E-rate ineligible costs
30	Compatibility with existing network infrastructure

*Appendix A:*

*Fiber Maintenance for Self-Provisioned Solutions*

		Pricing structure: _ Monthly _ Yearly	
Contract Length		Eligible Cost	Ineligible Cost
36-month term			
60-month term			

*Network Equipment for Self-Provisioned Solutions*

Location	Manufacturer	Model	Eligible cost	Ineligible cost

**Appendix A: Special Construction Pricing**

*Required with all bid submissions that include special construction*

Location	Strand Count	Segment Mileage	Total Segment Cost	Eligible Cost	Ineligible Cost*
Total project mileage and costs					

\*See Appendix C for guidelines on determining ineligible special construction costs

*Information that can be included now, but will be requested at a later date for chosen solution:* •

- Special construction cost breakout worksheet
- Route map of all build segments in kmz format
- Explanation of alternative routes that were explored and why the chosen route is the most cost-effective
- Explanation of special materials and procedures required that may have increased construction costs, such as:
  - Historical preservation or environmental issues
  - Bridge, waterway, railway, or highway crossings
  - Galvanized conduit
  - Directional boring through hard rock or under a paved surface
  - An excessive number of handholes, marker posts, or other OSP materials •
  - Expensive pole attachment fees or make ready costs



## *Appendix B: OSP Installation Specifications*

### *Material Requirements*

- Material will comply with those standards as established by UL or NEMA and shall be commercial grade. All materials will be new and free from defects.
- Selected contractor and its subcontractors will provide all material management to ensure that the project remains on track according to the project milestones,
- All due caution will be exercised in transporting and off-loading all materials to prevent any damage during shipping or placement. Any damage to any materials after their initial receipt and inspection by the respondent will be the sole responsibility of the respondent, who will replace such damaged items at no additional expense to the library.
- Unless specified by right-of-way owner, crossings will be PVC-Sch 40 or better.
- The exact requirements for location and type of conduit within the building shall be verified with building owner.
- All Hand Holes shall be (State) DOT approved, 45,000 lb. load rated CDR or comparable enclosures on roadways and railways, and pedestrian rated hand holes for non-roadways and railways.
- Large-radius sweeps shall be provided where required for offset or change in direction of conduit. Bend radius rating of the cable must be adhered to for all conduit bends, pull boxes, and hand holes.
- Fiber must be single-mode with the following specifications:
  - TU-T G.352.CID compliant
  - Maximum Attenuation @ 1310nm: 0.34 dB/km
  - Maximum Attenuation @ 1385nm: 0.31 dB/km
  - Maximum Attenuation @ 1550nm: 0.22 dB/km
- Connector types should be SC unless otherwise specified by the library.
- Any warranties associated with the fiber and any other outside plant materials must revert to the library as the fiber owner upon completion of construction

### *Specifications*

#### *Survey*

- Comply with all ordinances and regulations. Where required, secure permits before placing or excavating on private property, crossing streams, pushing pipe or boring under streets and railways. Pre-survey shall be done prior to each job.
- Respondent will locate underground lines of third parties in cable route area

#### *Permits and Traffic Control*

- The respondent must adhere to all applicable laws, rules and requirements and must apply for permits to place infrastructure per specification per county or city ordinance applicable to where the infrastructure is being placed.
- All traffic control, in accordance with local, state, county, or permitting agency laws, regulations, and requirements, will be the respondent's responsibility. The respondent's

construction schedule will take into consideration sufficient time for the development and approval of a traffic control plan.

#### *Tracer Wire Installation*

- Tracer wire shall I be placed with all conduit installed unless armored or traceable cable is used. The respondent will provide the tracer wire and shall install, splice and test (for continuity) the tracer wire. If the tracer wire is broken during installation, the wire should be repaired and tested for continuity after repair.
- For multi-duct installation, install a 5/8" X 8" copper clad ground rod in the hand-hole located on public right-of-way. Place a #12 insulated copper locate wire from the ground rod to the fiber optic termination room or to the outside of the building directly below the pull box and terminate on one side of an insulated indoor/outdoor terminal block to the master ground bar in the fiber optic termination room or place a ground rod on the outside of the building. Locate block in an accessible location. This is for "locate purposes only," not for grounding purposes. Note on as-built where ground is placed and tag located wire as "locate wire."

#### *Depth of Burial*

- Except where otherwise specified, the cable shall be placed to a minimum depth of 36" along roadways and 24" on private property. Greater cable depth will be required at the follow locations:
  - Where cable route crosses roads, the cable shall be placed at a minimum depth of 48" below the pavement or 36" below the parallel drainage ditch, whichever is greater, unless the controlling authority required additional depth, in which case the greatest depth will be maintained.
  - Where cable crosses existing sub-surface pipes, cables, or other structures: at foreign object crossings, the cable will be placed to maintain a minimum of 12" clearance from the object or the minimum clearance required by the object's owner, whichever is greater.

#### *Highway, Railroad, and Other Bored Crossings*

- All crossings of state or federal highways and railroads right-of-way shall be made by boring and placing a pipe casing. The cable shall be placed through the pipe casing. Country road and other roadways shall be bored, trenched, or plowed as approved by the appropriate local authority.
- All work performed on public right-of-way or railroad right-of-way shall be done in accordance with requirements and regulations of the authority having jurisdiction there under.
- Respondent shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work as drawn.
- Where the cable route crosses railroad right-of-way, the cable shall be placed at a minimum depth of 60" below the railroad surface or 36" below the parallel drainage ditch, whichever is greater, unless the controlling authority requires additional depth, in which case the greatest depth will be maintained.

#### *Cable Markers (if required by local authority)*

- Cable markers shall be placed within 48 hours of cable installation. Unless the right-of-way or property owner specifies otherwise, cable markers shall be placed at all change in directions, splices, fence line crossings, at road and stream crossings, and other points on the route not more than 1,000 feet apart.
- In addition, on highway right-of-way, the markers shall be located at the highway right-of-way line. Markers shall always be located so that they can be seen from the location of the cable.

#### *Hand Holes*

- Hand holes will be placed in accordance with standard industry practice following the specifications provided in the construction plans, typical drawings, and detail drawings. Special attention and planning must be exercised to ensure accessibility by other groups after construction has been completed.
- All hand holes unless otherwise stipulated by the drawings will be buried to be even with final grade.
- Immediately after placement, the soil around and over the hand hole will be tamped and compacted. Should any washouts occur, the respondent will be responsible for correcting the problem immediately without additional cost to the library.
- After cable placement, all ducts will be sealed.
- All splice hand holes/manholes will be grounded
- A minimum of 100ft coil of cable shall be left in each hand hole/building for splicing use.

#### *Splicing*

- Fiber to fiber fusion splicing of optical fibers at each point including head ends is required.
- Complete testing services, such as end to end, and splice loss testing, ORL, power meter/laser source testing and WDM testing is required.
- Individual splice loss will be 0.10 dB for single-mode unless after 3 attempts these values cannot be achieved, then the fibers will be re-spliced until a splice loss within 0.05 dB of the lowest previous attempts is achieved. Splice loss acceptance testing will be based on the fusion splicer's loss estimator.
- All cables to buildings shall be fusion spliced within a minimum of 50' of entering a building determined by the owner with an existing single mode fiber and terminated at terminated at customer's rack.

#### *Aerial Plant*

- Library requests buried fiber runs.

#### *Testing Cable*

- The respondent shall supply all tools, test equipment, consumables, and incidentals necessary to perform quality testing.
- The cable ends shall be sealed upon completion of testing.
- In addition to splice loss testing, selected respondent will perform end-to-end insertion loss testing of single-mode fibers at 1310 nm and 1550 nm from one direction for each

terminated fiber span in accordance with TIA/EIA-526-7 (OFSTP 7). For spans greater than 300 feet, each tested span must test to a value less than or equal to the value determined by calculating a link loss budget.

### *Restoration*

- All work sites will be restored to as near their original undisturbed condition as possible, all cleanup will be to the satisfaction of the library and any permitting agencies.
- Respondent shall provide a brief description of restoration plan in the response, with the expectation that a more detailed restoration plan will be delivered prior to when construction begins.
- Work site restoration will include the placement of seed, mulch, sod, water, gravel, soil, sand, and all other materials as warranted.
- Backfill material will consist of clean fill. Backfilling, tamping, and compaction will be performed to the satisfaction of the library, the representative of any interested permitting agency, and/or the railroad representative.
- Respondent will be responsible for any restoration complaints arising within one year after the library's final acceptance.
- Excess material will be disposed of properly.
- Debris from clearing operations will be properly disposed of by the respondent/subcontractors as required by permitting agencies or the railroad. Railroad ties, trees, stumps or any foreign debris will be removed, stacked, or disposed of by the respondent as per requirements by other interested permitting agencies, and/or the library.
- Road shoulders, roadbeds, and railroad property will be dressed up at the end of each day. No payment for installation will be permitted until cleanup has been completed to the satisfaction of the any permitting agencies, and/or the library.
- Site clean-up will include the restoration of all concrete, asphalt, or other paving materials to the satisfaction of the other interested permitting agencies, and/or the library.

### *Documentation*

As-built drawings will include:

- Fiber cable routes
- Drawings, site drawings, permit drawings, and computerize design maps and electronically stored consolidated field notes for the entire route must include:
  - Verification of as-built and computerized maps
  - Splicing locations
  - Optical fiber assignments at patch panels
  - Optical fiber assignments at splice locations
  - Installed cable length
  - Date of installation
- Aerial installation documents should include (JCML requests buried fiber runs if possible)
  - Pole attachment inventories
  - Pole attachment applications
  - Pole attachment agreements between respondent and other utilities
  - GPS points of reference for utility poles

- Photo images of poles to which fiber is attached
- Underground installation documents should include
  - Conduit design and detailing
  - Manhole detailing
  - Preparation of all forms and documentation for approval of conduit construction and/or installation,
- Fiber details will include:
  - Manufacturer
  - Cable type and diameter
  - Jacket type: singlemode
  - Fiber core and cladding diameter
  - Fiber attenuation per kilometer
  - Fiber bandwidth and dispersion
  - Index of refraction
- OTDR documentation will include:
  - Each span shall be tested bi-directionally from endpoint to endpoint.
  - Each span's traces shall be recorded and mapped. Each splice loss from each direction and the optical length between splices as well as any of the information required by Span Map.
  - Individual fiber traces for complete fiber length
  - Paper and computer disk records of all traces
  - Losses of individual splices
  - Anomalies
  - Wavelength tests and measurement directions
  - Manufacturer, model, serial number, and date of last calibration of OTDR
- Power Meter documentation will include:
  - Total link loss of each fiber
  - Wavelengths tested and measurement directions
  - Manufacturer, model, serial number, and date of last calibration for all equipment used

*References, Standards, and Codes*

Specifications in this document are not meant to supersede state law or industry standards. Respondents shall note in their response where their proposal does not follow the requested specification to comply with state law or industry standard. The following standards are based upon the Customer-Owned Outside Plant Design Manual (CO-OSP) produced by BICSI, the Telecommunications Distribution Methods Manual (TDMM) also produced by BICSI, ANSI/TIA/EIA and ISO/IEC standards, and NEC codes, among others.

It is required that the respondent be thoroughly familiar with the content and intent of these references, standards, and codes and that the respondent be capable of applying the content and intent of these references, standards, and codes to all outside plant communications system designs executed on the behalf of the library.

Listed in the table below are references, standards, and codes applicable to outside plant communications systems design. If questions arise as to which reference, standard, or code should apply in a given situation, the more stringent shall prevail. As each of these documents are modified over time, the latest edition and addenda to each of these documents is considered to be definitive.

*Table 1 - References, standards, and Codes*

Standard/Reference	Name/Description
BICSI CO-OSP	Customer-Owned Outside Plant Design Manual
BICSI TDMM	BICSI Telecommunications Distribution Methods Manual
BICSI TCIM	BICSI Telecommunications Cabling Installation Manual
	Customer-Owned Outside Plant Telecommunications Cabling Standard
TIA/EIA - 568	Commercial Building Telecommunications Cabling Standard
TIA/EIA - 569	Commercial Building Standard for Telecommunication Pathways and Spaces
TIN/EIA - 606	The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
TIN/EIA - 607	Commercial Building Grounding and Bonding Requirements for Telecommunications
TIN/EIA - 455	Fiber Optic Test Standards
TIN/EIA - 526	Optical Fiber Systems Test Procedures
IEEE 802.3 (series)	Local Area Network Ethernet Standard, including the IEEE 802.3z Gigabit Ethernet Standard
NEC	National Electric Code, NFPA
NESC	National Electrical Safety Code, IEEE
OSHA Codes	Occupational Safety and Health Administration, Code of Federal Regulations (CFR) Parts 1920 – General Industry, and 1926 – Construction Industry, et al.

## *Appendix C*

<i>E-rate Excess</i>	<i>Strands</i>	<i>-</i>	<i>Special Cost</i>	<i>Allocation</i>	<i>Construction Scenarios</i>
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### *A. Excess Strands for Applicant's Future Use*

If the service provider installs additional strands for the applicant's exclusive future use in a leased dark fiber or leased lit fiber special construction project, and if the applicant can show documentation that buying a cable containing the number of strands placed in the fiber system for the applicant's future use is more cost effective than buying a fiber cable with the number of strands the applicant plans to place into service the first year, no cost allocation of the excess strands is required and no other special construction charges would need to be cost allocated.

If the service provider installs excess strands for the applicant's exclusive future use in a leased dark fiber or leased lit fiber special construction project where the excess strands will remain dormant until they are lit for the applicant in the future, and if the applicant cannot show that it is not more cost effective than buying the exact number of fiber strands being lit in the first year, the applicant must cost allocate the costs associated with the excess strands only. No other special construction charges would need to be cost allocated.

### *B. Excess Strands for Service Provider's Future Use*

For lit services special construction and leased dark fiber special construction, if the service provider wishes to place extra strands in the build for its own use, the E-rate applicant must cost allocate the cost of the service provider-owned extra strands, as well as all incremental costs of those extra strands from the special construction E-rate funding request. It is not a pro-rata share, but an incremental cost calculation that must be backed by detailed documentation.

Example 1 from Funding Year 2018 USAC Fiber Training Slides applies:

### **Cost-Allocation: Fiber Examples**

Example 1: Leased lit fiber or leased dark fiber provider installs 12-strands in fiber run to a large school district hub and wants to add 36 additional strands for its own ineligible use, resulting in additional labor costs (e.g., splicing) and plant costs (e.g., larger termination boards, additional handholes).

RESULT: Cost of 36 additional fiber strands and all associated incremental increases in costs (e.g., the additional labor/outside plant costs) above what would be incurred if only the 12-strands of fiber were installed must be allocated out of the applicant's special construction funding request.

Applicant's should seek documentation from the provider which outlines the added incremental costs attributable to designing, managing and constructing a fiber system with a 48-strand cable instead of a 12-strand cable. Such costs should include (but are not limited to):

- Splice Labor. If any fibers over the applicant's fibers are spliced, the labor for these additional splices must be cost allocated.
- Splice Enclosures are placed to protect splices. If any fibers over the applicant's fibers are spliced and require an enclosure, the enclosures for these additional splices must be cost allocated.
- Fiber Installation Labor. This represents the incremental cost of pulling a larger cable through the buried conduit.
- Structured materials installation. This represents the additional cost of burying a larger conduit to support the additional fibers.

Note that the costs associated with installing a larger cable strand than what is required by the applicant are ineligible and the service provider should not include such costs in their special construction billing to tie applicant but should be prepared to show evidence during PIA review that it did not charge the applicant for these incremental costs.



Figure 1: Here is a table outlining some possible incremental costs:

<b>ITEM</b>	<b>12 Strand Cable Construction</b>	<b>48 Strand Cable Construction</b>	<b>Cost Allocation Amount the service provider should remove from the special construction request</b>
Fiber cable	.38 / foot	1.04 / foot	.66 /foot
Design and Engineering	2.12 / foot	2.42 / foot	.30 / foot to depict additional splices at A and Z locations
Project Management	1.18 / foot	1.18 / foot	0
Splice Labor	11 / splice	11 / splice	11 / splice over 12 splices at any splice site
Splice Enclosures	205 / enclosure	205 / enclosure	205 / enclosure for every enclosure over 12
Fiber patch Panel	71.43 / panel	218.60 / panel	147.17 / panel
Conduit and other structured materials	1.25 in conduit required 1.95 / foot	1.5 in conduit required 2.35 / foot	40 cents per foot
	Handhole (40,000lb rated) 2695 / unit	Handhole (40,000lb rated) 2695 / unit	No cost difference for handhold
	Fiber Marker 30 / unit	Fiber Maker 30 / unit	No cost difference per marker
Fiber Installation labor	.25 / foot	.28 / foot	.03 / foot
Structured Materials Installation (conduit, markers, handholes)	2.85 / foot	3.10 / foot	.25 / foot
Markers	Place every 500ft	Place every 500ft	No cost difference
Handholes	Place every 1000ft	Place every 1000ft	No cost difference

***SELF-PROVISIONED (APPLICANT-OWNED) FIBER:***

There are different cost allocation rules that apply, depending on whether fiber is only being purchased and used by:

- A) A single, eligible entity (school or library)
- B) A consortium of all eligible entities
- C) A consortium of eligible and ineligible "NON-public sector, municipal entities"
- D) A consortium of eligible and ineligible "public sector, municipal entities"

***A) Single, Eligible School or Library***

1. If the applicant installs the exact number of fiber strands that they will light in the first year, and no extra fibers are installed, all fiber strands and special construction charges are eligible and no cost allocation is required.

2. If the applicant installs more fiber strands than it will light in the first year, E-rate will pay for the number of strands being lit in the first year, but not the additional strands. No cost allocation is required for the special construction charges. E-rate applicants can only receive E-rate funding for self-provisioned fibers that are lit within the funding year. If they request excess strands that will remain dormant until the applicant lights the excess strands for their exclusive future use, then they would need to cost allocate the cost of the unlit strands in the applicable funding year.

If the applicant can show documentation that buying a cable containing the number of strands placed in the fiber system for the applicant's future use is more cost effective than buying a fiber cable with the number of strands the applicant plans to place into service the first year, no cost allocation for excess strands by the applicant is required.

Example 2 from the Funding Year 2018 USAC Fiber Training Slides applies:

Example 2: School library seeks to install 48 strands of fiber in a self-provisioned network, only plans to light 12 strands within the FY. The remaining 36 strands will be reserved for the applicant's exclusive future use.

Result: Applicant must allocate the cost of the excess fiber strands out of the funding request, but no portion of the remaining special construction cost.

<b>Item</b>	<b>12 Strand Cable</b>	<b>48 Strand Cable</b>	<b>Cost Allocation Amount</b>
Fiber Cable	.38 / foot	1.04 / foot	.66 / foot

***B) Consortium Comprised of All E-rate Eligible Entities***

As with Example 2, all fiber (lit and unlit in the first year) must be dedicated to only eligible entities only and the cost of strands not lit in the first year must be cost allocated.

### *C) Consortium of Eligible and Ineligible Entities (NON-public sector, municipal)*

If the eligible entity purchases and installs fiber for the usage of the eligible entities and the ineligible (non-public sector) entities, the funding request will be denied. E-rate funded self-provisioned fiber is exclusive owned by the E-rate applicant consortium and is for the exclusive use of the E-rate eligible applicant.

*In this case, Example 3 from the Funding Year 2018 USAC Fiber Training Slides applies:*

Example 3: School library seeks to install 48 strands of fiber in a self-provisioned network that will be used by the school library the State Department of Social Services, and a non-profit organization.

Result.- Funding request denied. Self-provisioned networks must be owned by eligible schools and libraries, which may not resell F-rate-supported services and products.

### *D) Consortium of Eligible Entities and Ineligible 'Public Sector, Municipal Entities'*

For a self-provisioning consortium that includes a public-sector partner, the special construction cost-allocation rules are the same as the Leased Lit Fiber services with special construction or Leased Dark Fiber services with special construction. The cost of the ineligible fibers must be deducted from the funding request, but only the incremental costs related to labor, materials, engineering, project management, and design must be cost allocated.

For the purposes of E-rate, "public sector partner" is defined as health care providers and public sector (governmental) entities, including, but not limited to state colleges and universities, state educational broadcasters, counties and municipalities.

For this type of consortium, Example 4 from the Funding Year 2018 USAC Fiber Training Slides applies:

Example 4: The applicant is an E-rate consortium comprised of schools and municipal entities. It seeks to self-provision a network that will be owned entirely by the schools, but will also be used by the municipal entities.

Result: The cost of all fiber strands used by the municipal entities must be allocated out of the funding request, as well as any additional special construction costs incurred because of the installation of these fiber strands (e.g., any increased labor charges, increased plant costs, 100% of the costs of any laterals built to the municipal entities).

Note: The eligible applicant should be prepared to show evidence during PIA review that it has deducted all incremental costs associated with design, engineering, project management, construction, procurement of fiber and procurement of structured materials of the larger strand cable when compared to the costs associated with design, engineering, project management, construction, procurement of fiber and procurement of structured materials of the fiber strand cable only used by the eligible applicant.