

Request for Quote – E-Rate Eligible Services

Scope of Work – Structured Cabling

DATE: March 16, 2016

DUE DATE: Allowable Contract Date from Posted 470

The **City of Phoenix – Public Library** is requesting quotes for low voltage cabling runs per the detailed specifications and quantities listed below. Cabling will be added on an as needed basis to support ongoing Wireless Expansion and Network Upgrade projects across the 17 library system. See www.phoenixpubliclibrary.org for building locations and details. The contract start date is anticipated to be April 29, 2016 or upon notification of approval of E-Rate funding for this project; at the Library's discretion. In any case, no work will begin prior to April 29, 2016.

The Library is seeking services and pricing through an approved State Master Contract or other Cooperative Purchasing Contract that is acceptable according to the Arizona State Procurement Rules. Please be advised that this is a Request for Quote and not a formal sealed RFP/Bid process.

Quotes should be delivered electronically to email address **aimee.fifarek@phoenix.gov** no later than the posted due date. The submission of a quote will indicate that the prospective vendor understands the requirements and specifications and that the services and materials requested can be supplied, and the required delivery timeline can be met as specified.

Please direct all questions and requests for information to **Aimee Fifarek** via email at **aimee.fifarek@phoenix.gov**.

Additional Instructions:

1. The pricing quoted must be compliant with the prospective vendor's State Master Contract or Cooperative Purchasing Contract pricing structure. A copy of any and all contracts that the City will be expected to sign must accompany the quote provided.
2. Submitted quotes must clearly identify the prospective vendor's State Master Contract or Cooperative Purchasing Contract number, if applicable, and E-Rate SPIN.
3. The original contract offered should not expire prior to September 30, 2016, and should include specifications that allow for extensions at the discretion of the applicant; not to exceed a total of 60 months.
4. This RFQ is for a single contract award. Submitted quotes must include all items on the Required Equipment List and Low Voltage Cabling in the quantities requested; no partial quotes will be accepted.
5. Submitted quotes must identify the cost for all equipment, supplies, and labor, including any costs for campus assessment, project management, documentation, travel, taxes, etc.

6. All taxes, including sales taxes, must be identified separately. Sales tax will not be included in the competitive evaluation of the quote but will be included in the E-Rate Funding Application.
7. The products quoted must be eligible for E-Rate under the Category 2 Internal Connections provision compliant with the Schools and Libraries Division Eligible Services List for the current funding year. The costs for services not eligible for E-Rate must be clearly itemized separate from eligible services.
8. Any pricing proposed must comply with the FCC Lowest Corresponding Price Rule as required by the Universal Service First Report and Order, and restated in the FCC E-Rate Modernization Report and Order, adopted July 11, 2014. The FCC Lowest Corresponding Price rule prohibits an E-rate services offeror from offering or charging E-rate applicants a price higher than the lowest price that the offeror charges to non-residential customers who are similarly situated to a particular school, library, rural health care provider or consortium that purchase directly from the offeror.
9. Provide a minimum of three references; preferably Arizona libraries. Include the following information: Library Name, Contact Person's Name, Title, Phone Number, Email and Years Services Provided.
10. The City will evaluate all compliant quotes received, and reserves the right to select the quote that is the most cost effective, compliant with FCC Fair and Competitive Bidding Rules.

Failure to comply with these general specifications may be grounds for disqualification and award may be made to the next most cost effective provider.

Low Voltage Cabling Specifications:

The prospective vendor will provide the cost for **500** data drops. The average length of each data drop is **175** feet. The successful vendor will also provide certified Category **6** patch cables for all horizontal cable drops to meet associated manufacturer warranty specifications. The vendor shall provide **500** 3-foot category 6 UTP patch cables and **500** 7-foot category 6 UTP patch cables.

Each voice/data drop will consist of 3 cables. One cable will terminate on existing wall mounted 110 block, 2 cables will be terminated on rack mounted patch panels furnished and installed by the vendor. Furnish and install **21** Ortronics 48 port high-density angled patch panel (OR-PHD66U48).

Vendor may provide pricing for approved equivalent cable and termination hardware solutions as long as they meet the minimum performance of the nCompass Cat-6 Plus and Legrand Oasis Category 6 specifications, and are listed on the prospective vendor's State Contract product sheet.

HORIZONTAL DISTRIBUTION SYSTEM, WORK AREAS, CONNECTING HARDWARE

Drops will consist of 3 Category 6 plenum unshielded twisted pair cables, either Superior Essex (66-240-2B) or Berk-Tek Lanmark 1000. Drops will utilize:

- Ortronics single gang 6 position faceplates for wall applications.
- Ortronics Fog White blank (OR-42100002) inserts to fill unused ports.

- Ortronics Fog White TracJack Furniture Plate Herman Miller, Beltline, six-port (OR-403005xx) for furniture applications.
- Ortronics Cat-6 TracJack 6 (OR-TJ600) for field terminations.
- (2) Ortronics Red Color Codes Icons for data cables (OR-40322200).
- (1) Ortronics Blue Color Codes Icons for voice cables (OR-40326100).

Vendor may provide pricing for approved equivalent cable and termination hardware solutions as long as they meet the minimum performance of the nCompass Cat-6 Plus and Legrand Oasis Category 6 specifications, and are listed on the prospective vendor's State Contract product sheet.

The horizontal pathways consist of structures that conceal, protect, support, and provide access to horizontal cables between the telecommunications outlet/connector used to connect work area equipment at the work area and the serving telecommunications room. The cable pathways will consist of existing cable tray and j-hooks. All cables shall be supported 5'-0" on center (at mid-span). All horizontal cable shall be installed with adequate slack (8ft min service slack in ceiling).

A. Cable Installation:

1. All cables shall be bundled using plenum rated hook and loop fasteners ties, loosely tied so as not to deform cable, 5'-0" on center (at mid-span).
2. All cabling shall be installed in accordance with manufacturers' written bend radius and pulling tensions. General industry guidelines recommend Tensile loading on a single 4-pair copper UTP cable shall not exceed 25 lbf.
3. Bend radius of a single 4-pair copper unshielded twisted pair cable shall not exceed 4 times the diameter of the cable.
4. All conduits and conduit sleeves shall have bushings or grommets and shall be installed prior to the installation of communications cables to avoid damage and abrasions to cable sheathing and insulation.
5. Splices are not permitted in any cable.
6. Avoid placing copper cables near sources of extreme heat (i.e. boilers, radiators, heat coils).
7. Maintain cable twists for all UTP cables to no more than ½" back from termination point for all Category 6 cables.
8. All cables shall be supported by cable tray, cable runway, or J-hooks. When cables leave trays or runways, cables shall be supported by drop-outs or cable support hardware manufactured specifically for the purpose of supporting cables. J-hooks shall be installed a minimum of every 5 feet and cabling shall maintain minimal deflection and strain (less than 12" deflection). Cables shall not be supported from ceiling grid wires. Cables shall not run above iron joists.
9. All cables shall be neatly bundled throughout the ceiling space.

10. Service slack shall be provided at both ends of installed cabling. 8 feet of service slack shall be provided in communication rooms and shall be installed to allow for future equipment rack relocations without the need to re-terminate patch panels; the 8' service loop shall be neatly bundled and secured in ceiling space with large j-hooks or placed in cable trays. Service loops should be created in a figure-8 or staggered oval loops.
11. Any cabling installed in equipment rooms shall be neatly placed in cabling trays, cabling runways, or horizontal and vertical rack/cabinet cable managers. When tray, runways, or cable managers are not specified, cable shall be neatly installed with j-hooks. Cables shall always be installed vertically/horizontally or at right angles to structure.
12. Separation: Maintain the following distances between cables, other system cables and other building systems:
 - 12.1. One (1) foot from fluorescent lights.
 - 12.2. Four (4) feet from motors and transformers
 - 12.3. Three (3) feet from hot water piping or other mechanical equipment.
 - 12.4. One (1) foot from electrical conduits, other systems cables or other electrical equipment.
13. All low voltage cables shall be run parallel or at right angles to building structural framework. Do not run cables diagonally across ceiling space without written authorization by the ITS Communications Engineer.
14. Fire seal around all cables running through rated floors and walls. UL Listed Systems are required for each penetration and each listing shall be available for review by building inspectors.
15. Leave spare pull string with every outlet installed.
16. All cabling that has been shipped or stored in an environment outside the manufacturer's recommended installation temperature range shall be conditioned per the manufacturer's recommendations immediately prior to installation.
17. All data drops will be clearly and professionally labeled with matching labels at the faceplate and at the patch panel. Handwritten labels are not acceptable. The labeling scheme will be given to the contractor by the ITS Communications Engineer.

B. Cable Testing

1. Each permanent link or channel in the network must be field tested in accordance with the TIA-568 series industry standard and nCompass or Oasis testing requirements in force at the time of purchase (nCompass and Oasis testing requirements take precedence over TIA when differences exist). The installed permanent links and channels must have passed all applicable TIA and nCompass or Oasis performance requirements.
2. Submit test reports to the ITS Communications Engineer prior to active equipment installation.

C. Warranty

The Warranty Submittal must be completed and submitted within 10 days of installation completion. Copies of all certification test reports must be submitted as part of the Warranty Submittal. Test results must be kept on file by the registrant to be resubmitted when requested by Supplier.

Evaluation Criteria:

Evaluation of the quotes provided will be based on but not limited to the following criteria in order of priority:

1. **Cost of ELIGIBLE Services** – Primary evaluation factor.
2. **Equivalence of Technical Design/Meets Scope of Work** – Conformance with general and technical specifications and vendor's attention to detail.
3. **Vendor Qualifications/Personnel Certifications** – Vendor's experience, personnel certifications, and strength of references.