Request for Proposal

For

Classroom Data Cabling

Raytown Quality Schools

Raytown, Missouri

January 12, 2016
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**Information**

Currently this District serves 9000 students and over 1400 employees. This District covers a 10 mile by 10 mile square community called Raytown. It is made up of 25 campuses that contain: two High Schools, three Middle Schools, ten Elementary Schools, Special Programs, and Administrative and Support facilities.

Raytown Quality Schools is seeking sealed bids for **Data Cabling** necessary to ensure data connectivity for Wireless Access Points in every classroom. This RFP will consist of six (6) separate projects. Vendors may bid on any or all the projects.

Projects Include:

1. Cabling at Raytown High School, Laurel Hills Elementary, & Fleetridge Elementary
2. Cabling at Raytown South High School, Spring Valley Elementary, & Norfleet Elementary
3. Cabling at Raytown Middle School, Eastwood Hills Elementary, & Robinson Elementary
4. Cabling at Raytown South Middle School, Westridge Elementary, & Southwood Elementary
5. Cabling at Raytown Central Middle School, Blue Ridge Elementary, New Trails Early Learning Center & Little Blue Elementary
6. Cabling at Northwood, Herndon Career Center, Raytown Schools Education & Conference Center

Sealed bid should be submitted in the form of three-sealed copies with title **Classroom Data Cabling** – (1) marked “Original”, (2) marked “Copy”. All submissions must be received at the address below by the date and time listed. Attendance at bid opening is not required.

All documents will be considered the property of Raytown Quality Schools. The request for proposal does not commit the District to any specific course of action.

**School District:**
Raytown Quality Schools
6608 Raytown Road
Raytown, Missouri 64133

**District Contact:**
Dr. Jim Earle, President Federal Program Consulting, Inc.
jim@federalprogramconsulting.com
O: 386-405-3979

**Submit Sealed Proposal:**
**February 18th, 2016 – 1:30 PM**
Melissa Tebbenkamp, Director of Instructional Technology
Raytown Quality Schools
10750 E. 350 Highway
Raytown, Missouri 64138

*A formal opening will take place at this time. Attendance is NOT required.*
PRE BID MEETING – (Attendance is REQUIRED for bid to be accepted.) Bid specifications will be give out at this Pre Bid Meeting.

DATE: January 22nd, 2016
TIME: 9:00 am
LOCATION: 10750 E. 350 Highway, Raytown, MO 64138

Overview
Raytown Quality Schools ("District, RQS") requests sealed bids from interested vendors ("Provider", "Contractor", "Vendor") for the purpose of acting as a certified installer for CAT6 data cabling.

The initial master service agreement will be awarded to the selected provider(s) with a one-year base from July 1, 2016 with the option to extend the contract pricing through June 30, 2018.

Proposal Due Date and Time
In order to be considered, two (2) sealed copies of the proposal, one marked as original, one marked as copy, must be received by Raytown Quality Schools at the address stated by the following date and time:

February 18th, 2016 – 1:30 PM

District Terms

Vendor Requirements
1. Vendor bids shall conform to the requirements listed in this RFB.
2. The selected vendor shall have the responsibility to ensure that the products/services that are delivered to the District match the bid and the specifications listed on the Purchase Order.
3. The vendor shall have responsibility for any damage incurred during transit.
4. The selected vendor shall not increase the pricing listed in this RFB through June 30, 2018. If vendor sources reduce pricing, it is expected that this price reduction be passed on to the District.
5. Preference will be given to contractors who have a physical office located within sixty (60) miles from Raytown School District Technology Department: 10750 East 350 Highway, Raytown, MO 64138.
6. The vendor shall deliver the products to desired locations determined by District.
7. All work on school days must be done after school has been released. School release times range from 2:15 PM to 4:10 PM.
8. The District shall be allowed 60 days after installation, to receive full credit for the installation if it is not working according to expectations set forth by the district
9. The installed system shall carry a full year warranty on all parts, labor and installation.
10. All labor must comply with Missouri Annual Wage Order 22.
11. All vendors must have a USAC SPIN number and agree to use the Server Provider Invoicing method (Invoicing the District for ONLY its discounted rate of 20%).

Vendors may withdraw their bids at any time prior to the closing for receipt of the bids. If withdrawing, notify Melissa Tebbenkamp, in writing (or email), as soon as possible. New bids received after the closing date shall not be considered.
Delivery

1. All materials and equipment quoted shall be delivered as agreed upon and directed by the Raytown Quality Schools Technology Support Services department.
2. All services provided shall be conducted as agreed upon and directed by the Raytown Quality Schools Technology Support Services department. No service shall be conducted prior to authorization.
3. The selected provider shall have the responsibility to ensure that the products that are delivered to the District match the bid and the specifications listed on the Purchase Order.
4. During the time between delivery and acceptance, Raytown Quality Schools cannot be held liable for any damages to or theft of any components. It will, therefore, be the responsibility of the provider to obtain insurance against loss, theft and damage.
5. The provider shall deliver the products directly to the building(s) specified. District shall notify the chosen provider as to the location.
6. Raytown Quality Schools does not allow smoking or the use of any tobacco products within its facilities or any Raytown Quality Schools grounds. This applies to contractors and subcontractors and their employees as well as Raytown Quality Schools personnel.
7. All selected vendors must submit to the District within 3 days after selection the USAC Item 21 Attachment spreadsheet for all eligible eRate items on the proposal.

District’s Responsibilities Regarding Service Requirements
Provider must identify the exact tasks and/or equipment requirements that Raytown Quality Schools must satisfy and/or be responsible for in regards to service and delivery of equipment.

Service Calls & Performance Reporting
District requires the ability to receive, from the successful Provider, progress reporting and ticket history/information for any requests entered for service, scheduled maintenance, or repairs.

Penalties for Missed Deadlines

1. Raytown Quality Schools will reserve the right to impose penalties in the amount of $500 per day, for Provider failure to meet prescribed deadlines. Final deadlines and provisions for work performance will be agreed upon between District and Provider during contract negotiations.
2. Penalties will not be imposed whereby conditions under the District’s control have precluded work to be performed by the Provider.

Subcontractors
Subcontracting of any services requested under this RFP must be disclosed in the proposal response and agreed to by the District in advance of service initiation and start of work.

Proposal Requirements

1. Purchasing and payments shall be in accordance with Board policy DJF as outlined in administrative procedure DJF-AP1. This procedure can be found on the District website.
2. Proposals will be date and time stamped upon receipt by the Raytown Quality Schools.
3. The District will select the lowest or best bid. The District reserves the right to design the evaluation criteria to be used in selecting the best bid, including, but not limited to: price, value, quality of product, history of performance, recommendations and other qualities important to the district.
4. The District reserves the right to waive minor technical defects in a bid, reject any and all bids, reject any part of a bid, advertise for new bids, or make the purchase on the open market if the product or service can be obtained at a better price.
5. The District reserves the right to provide the final contract for mutual consideration and agreement.
6. If the scope of the purchase changes substantially, the district will rebid the product or service unless otherwise provided in this procedure.
7. The Raytown School District reserves the right to separate, accept, or eliminate any item(s) listed under the Request for Proposal that it deems necessary to accommodate budgetary and/or operational requirements.
8. The District also reserves the right to not select any vendor or purchase any goods and services resulting from this Request for Bid.
9. If the District elects to reduce or increase the number of items from your original bid, please state your pricing conditions. Also it is expected that prices quoted in the response to this RFB not increase if additional product is purchased through June 30, 2018.
10. Any bid may be withdrawn prior to the scheduled time for the opening of bids. Any bid received after the time and date specified shall not be considered.
11. Contractor proposals shall conform to the requirements listed in this RFB, any amendments thereto, agreed upon documented exceptions and schedules, and the final contract.
12. If the contractor takes exception to any of the requirements, describe the exception and give the details of any alternative offered. The School District shall judge the acceptability of any such alternatives.
13. Should any differences arise as to the meaning or intent of specifications in this document and amendments thereto, the School District’s decision shall be final and conclusive.
14. Federal and State laws, Local ordinances and Board policies apply to contracted services. No portion of any master service agreement or contract may defy these laws, ordinances, and policies. Any such portion of a master service agreement or contract that does defy these laws, ordinances, and polices will be considered null and void.
Payment and Retainage
The District is exempt from sales tax and use taxes. Taxes shall not be listed in a bid/proposal/quote or on invoices. A copy of the letter exempting the District from paying these taxes is available from the District upon request by the contractor/provider.

All cable installations shall undergo a 60 school day acceptance period from each completed installation. All system components shall operate as specified for the full 60 school days before any final payments shall be made to the contractor. Full payment will be made upon receipt of materials. If the project is completed in phases, labor shall be paid at the completion of each phase plus the 60 school day acceptance period.  
(Note: full payment is the 20% on eligible eRate reimbursable charges and 100% on non-qualified eRate equipment and services)

There shall be no hidden costs associated with this proposal. If the contractor/provider foresees any additional or unexpected costs or charges to be made, these charges need to be explained in the proposal.

Purchasing and payments shall be in accordance with Board policy DJF as outlined in administrative procedure DJF-AP1. This procedure can be found on the District website.

Selection Process and Minimum Requirements
Each company must meet the following minimum qualifications

- Contractor shall conform to the requirements listed in this request.
- The selected contractor(s) shall assign a project manager/point of contact to this project. This person shall become the central contact person for the contractor once the project begins.
- Contractor personnel may be required to submit drug testing results. Contractor must use District approved provider.
- Contractor must provide the District Personnel Office with proof of a satisfactory FBI background check for each person working on school property (delivery and service calls).
- The selected contractor shall have the responsibility to ensure that the products that are delivered to District match the request and the specifications listed.
- The selected contractor shall not increase pricing through June 30, 2018. If the contractor source reduces pricing, it is expected that this price reduction be passed on to the School District.
- Contractor must provide seven (7) total references.
- Vendor must provide a certified cashier’s check or bid bond in the amount of five (5%) of the lump sum proposal amount.
- Upon receipt of Purchase Order, but prior to initiation of work, Vendor must provide a certified cashier’s check or performance bond in the amount of ten (10%) of the lump sum awarded amount of each phase of project.
**Required Proposal Format and Content**

Three bound copies should be submitted on 8 1/2” by 11” paper, single sided, with consecutive page numbers. Each copy shall be in 3-ring binder with labeled tabs separating each section. Please mark one copy as “original” and two as “copy”.

The proposal should contain the following sections in the order presented below. Proposals that do not include these sections may be considered non-responsive and as such may not be considered.

- Proposal Cover Sheet /Signature Page
- Bid Acknowledgement and Exceptions
- Letter of Interest
- Profile and Experience
- Staff
- Project Budget
- Additional Requirements
  - Must include USAC SPIN number
- Litigation
- References

**Section 1: Proposal Cover Sheet**

Fill out completely the Bid Cover Sheet which is the last page of this document. Place said cover sheet as the first page of the proposal that has been prepared for consideration.

**Section 2: Bid Acknowledgement and Exceptions**

The Contractor shall acknowledge compliance with the requirements listed in this RFB and any amendments thereto. If the contractor takes exception to any of the requirements, describe the exception and give the details of any alternative offered. The School District shall judge the acceptability of any such alternatives.

**Section 3: Letter of Interest**

The proposal should be introduced with a letter of interest that includes a synopsis of the company’s services and highlight the capacity to perform the work. The letter should be signed by the individual with contract signature authority for the company.

**Section 4: Profile and Experience**

Outline company history, scope of services offered, size of the vendor, and location. Give additional detail that the company feels may elaborate on profile and experience. List out in a matrix format experience.

**Section 5: Staff**

List the experience and qualifications of any staff that will be assigned to the project. Name the person who will fill the role of Project Manager/Sales Manager. Note any additional personnel that will be responsible for onsite activities once the project begins.
Section 6: Project Budget

- Complete in its entirety, the price tables provided in this RFP (Specifications: Pricing Tables). Each project will have its own pricing table. Explain any blank areas. Submit the company’s total project budget to fulfill the requirements of this bid. The proposed budget response shall be listed in the same format and order as provided below. If bidding on multiple projects, complete each project budget separately.
- Vendors should complete the attached pricing sheet and also include information on how prices will be calculated for items not on the sheet in the COMMENT section below.
- The unit price should reflect the price the district should expect to pay if a single project is selected. If a discount or price savings is offered for awarding multiple projects, describe the discount/savings and conditions in the COMMENT section below.
- Bids must identify all costs as presented in the pricing table.
- Product/part number alternatives are allowed only if specifications are met or exceeded.
- Pricing should be guaranteed through June 30, 2018. The below quantities represent the desired order, but, any minimum order or further quantity discount should be listed.
- Vendors should outline process for warranty and what restrictions are placed on returns in the COMMENT section below.

Pricing Tables

1. Cabling at Raytown High School, Laurel Hills Elementary, & Fleetridge Elementary
2. Cabling at Raytown South High School, Spring Valley Elementary, & Norfleet Elementary
3. Cabling at Raytown Middle School, Eastwood Hills Elementary, & Robinson Elementary
4. Cabling at Raytown South Middle School, Westridge Elementary, & Southwood Elementary
5. Cabling at Raytown Central Middle School, Blue Ridge Elementary, New Trails Early Learning Center & Little Blue Elementary
6. Cabling at Northwood, Herndon Career Center, Raytown Schools Education & Conference Center

Project 1: Raytown High School, Laurel Hills Elementary, & Fleetridge Elementary

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Raytown High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laurel Hills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleetridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 1 Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Project 2: Raytown South High School, Spring Valley Elementary, & Norfleet Elementary

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td>South High School</td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Spring Valley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norfleet</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project 2 Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project 3: Raytown Middle School, Eastwood Hills Elementary, & Robinson Elementary

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raytown Middle</td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Eastwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robinson</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project 3 Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project 4: Raytown South Middle School, Westridge Elementary, & Southwood Elementary

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Middle</td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Westridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project 4 Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project 5: Raytown Central Middle School, Blue Ridge Elementary, New Trails Early Learning Center & Little Blue Elementary

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Middle</td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Blue Ridge</td>
<td></td>
<td></td>
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<tr>
<td>New Trails</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Blue</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project 5 Total</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
Project 6: Northwood, Herndon Career Center, Raytown Schools Education & Conference Center (RSECC)

<table>
<thead>
<tr>
<th>Building</th>
<th>Option 1: Cost for 1 data drop per room</th>
<th>Option 2: Cost for 2 data drops per room</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equipment</td>
<td>Installation</td>
</tr>
<tr>
<td>Northwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herndon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSECC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 3 Total</td>
<td></td>
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</tbody>
</table>

COMMENT:

Section 7: Additional Requirements
In addition to the information required below, the vendor must follow all E-Rate requirements, including service initiation, product deployment, and invoicing, to ensure that the District receives the full E-Rate reimbursement approved via Funding Commitment Decision Letter.

Vendor must provide the following information:

- The Service Level Agreement (SLA) for your proposal.
- Indicate any options available.
- Trouble reporting and escalation procedures.
- Hours of operation for help or trouble reporting.
- Describe maintenance and trouble notification procedures.
- Please show applicable discounts separately, if any will be included.
- E-Rate Service Provider Identification Number (SPIN) on your proposal.
- Corporate customer E-Rate contact information.
- An implementation timeline proposal for each project proposed.

Section 8: Litigation History
Provider must state whether they have been involved in any litigation during the last five years, and if so, describe the litigation.

Section 9: References
Two financial references must be provided from either financial institutions or suppliers using the format below.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Contact Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
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</tbody>
</table>
Five project references must be provided of which three must be entities where you have provided comparable projects (overlaps acceptable). These projects must have been engaged during the last two years. These references must be for services provided by the proposing company, not by individuals within the company who may have worked on projects while at another company. The Project Scope must include the quantity of product provided, level of service provided and if OEM or Remanufactured product is purchased. Use the format below. Reference contact information must be current and include working phone numbers.

<table>
<thead>
<tr>
<th>Reference Organization</th>
<th>Contact Name</th>
<th>Phone Number</th>
<th>Project Scope:</th>
<th>Project Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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</tbody>
</table>

Requests for Information
Any questions about the Request for Proposal process must be received in writing by February 10th, 2016.

If you would like to receive email notification of any RFP amendments, questions and clarifications, notify the district contact via email your intent to bid.

Scope of Products and Services
Proposal must include the below materials and services:

Data cabling will be run to the specified location in each classroom. Cabling will be terminated in the specified telecommunications closet(s). The vendor shall provide patch panels as specified. The vendor must label all terminations in accordance to the district’s labeling standards.

This RFP consists of six (6) projects as listed below. Specification regarding number of data runs, average distance, and telecommunications closets will be provided at the mandatory pre-bid meeting.

1. Cabling at Raytown High School, Laurel Hills Elementary, & Fleetridge Elementary
2. Cabling at Raytown South High School, Spring Valley Elementary, & Norfleet Elementary
3. Cabling at Raytown Middle School, Eastwood Hills Elementary, & Robinson Elementary
4. Cabling at Raytown South Middle School, Westridge Elementary, & Southwood Elementary
5. Cabling at Raytown Central Middle School, Blue Ridge Elementary, New Trails Early Learning Center & Little Blue Elementary
6. Cabling at Northwood, Herndon Career Center, Raytown Schools Education & Conference Center
Data Cable Requirements

Cabling System Design and Installation

The communications cabling system has been designed and shall be installed per the guidelines. The following installation, documentation, component and system industry specifications shall be met or exceeded:

- ANSI/TIA/EIA-568-B.1 and addenda
  “Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements”
- ANSI/TIA/EIA-568-B.2 and addenda
  “Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted-Pair”
- ANSI/TIA/EIA-568-B.3 and addenda
- ANSI/TIA/EIA-569-B and addenda
  “Commercial Building Standard for Telecommunications Pathways and Spaces”
- ANSI/TIA/EIA-606-A and addenda
  “Administration Standard for the Telecommunications Infrastructure of Commercial Buildings”
- ANSI-J-STD-607-A and addenda
  “Commercial Building Grounding and Bonding Requirements for Telecommunications”
- ANSI/TIA/EIA-526-7
  “Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant”
- ANSI/TIA/EIA-526-14A
  “Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant”
- IEC/TR3 61000-5-2 - Ed. 1.0 and amendments
  “Electromagnetic compatibility (EMC) - Part 5: Installation and mitigation guidelines - Section 2: Earthing and cabling”
- ISO/IEC 11801:2002 Ed2.0 and amendments
  “Information technology - Generic cabling for customer premises”
- CENELEC EN 50173:2000 and amendments
  “Information Technology - Generic cabling systems”

A mutually agreed upon “exception list” to the standards shall be co-developed by the District and the contractor. Also, as detailed under the Cabling Testing & Certification heading below, the cabling shall be tested and documented per EIA/TIA TSB 67 Level Ile accuracy. All cabling shall have neat and secure wire management. **“Speed Wrap” cable shall not be used. Support hooks and rings shall be used in the areas where the cable tray is not available.** The contractor shall be responsible for determining and making any required core holes (in addition to those done by the owner) and seeing that they are fire-stopped as part of the original contract. The 568B wiring scheme shall be used at terminations.

A cable solution which has home-run copper CAT6 for data at each location.

For the main cable runs, there shall be a cable tray to hold the cables. Some J-hooks, D-rings and Bridle rings will be needed where the cable leaves the cable tray.

Cable Testing & Certification

Testing of all newly installed cable links shall be performed prior to system cutover.
Copper Testing
All category 6 field testing shall be performed with an approved level IIe or III balanced twisted-pair field test device.

All installed category 6 channels shall perform equal to or better than the minimum requirements as specified by the table below:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Performance @ 100MHz</th>
<th>Performance @ 160MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss</td>
<td>22.1 dB</td>
<td>28.3 dB</td>
</tr>
<tr>
<td>NEXT Loss</td>
<td>33.9 dB</td>
<td>30.9 dB</td>
</tr>
<tr>
<td>PS NEXT Loss</td>
<td>31.5 dB</td>
<td>28.4 dB</td>
</tr>
<tr>
<td>ACR</td>
<td>11.8 dB</td>
<td>2.6 dB</td>
</tr>
<tr>
<td>PS ACR</td>
<td>9.4 dB</td>
<td>0.1 dB</td>
</tr>
<tr>
<td>ACR-F</td>
<td>20.2 dB</td>
<td>16.2 dB</td>
</tr>
<tr>
<td>PS ACR-F</td>
<td>17.6 dB</td>
<td>13.6 dB</td>
</tr>
<tr>
<td>Return Loss</td>
<td>13.1 dB</td>
<td>11.3 dB</td>
</tr>
<tr>
<td>Propagation Delay</td>
<td>490 ns</td>
<td>490 ns</td>
</tr>
<tr>
<td>Delay Skew</td>
<td>30 ns</td>
<td>30 ns</td>
</tr>
</tbody>
</table>

All balanced twisted-pair backbone cables exceeding 90 m (295 ft) or 100 m (328 ft) shall be 100% tested for continuity if applications assurance is not required.

Category 6 balanced twisted-pair horizontal and backbone cables, whose length does not exceed 90 m (295 ft) for the basic link, and 100 m (328 ft) for the channel shall be 100 percent tested according to ANSI/TIA/EIA-568-B.1. Test parameters include wire map plus ScTP shield continuity (when present), length, NEXT loss (pair-to-pair), NEXT loss (power sum), ELFEXT loss (pair-to-pair), ELFEXT loss (power sum), return loss, insertion loss, propagation delay, and delay skew.

Test Equipment Criteria
All balanced twisted-pair field testers shall be factory calibrated each calendar year by the field test equipment manufacturer as stipulated by the manuals provided with the field test unit. The calibration certificate shall be provided for review prior to the start of testing.

Autotest settings provided in the field tester for testing the installed cabling shall be set to the default parameters. Test settings selected from options provided in the field testers shall be compatible with the installed cable under test.
The test shall be performed on each horizontal cable run, in the permanent link configuration. The installer shall provide documentation in the form of printouts and/or Adobe PDF file format. All fiber optic cable shall be tested and certified for attenuation, length and polarity.

The District may elect to have a third-party company do the testing and certification.

The District shall provide all needed patch cables.

Data cables shall terminate on District provided Patch Panels in the Telecommunication Closets at pre-determined locations.

No fire rated plywood is required on these projects.
Bid Submitted By

Company Name

Authorized Name/Title (printed)

Authorized Signature

Contact Person for the Bid/Quote/Proposal process

Date

Telephone

Fax

Email
## Locations

<table>
<thead>
<tr>
<th>Building</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Blue Ridge Elementary (BR)</td>
<td>6410 Blue Ridge Blvd. Raytown Mo 64133</td>
</tr>
<tr>
<td>New Trails Elementary (NT)</td>
<td>6325 Hunter. Raytown MO 64133</td>
</tr>
<tr>
<td>2. Eastwood Elementary</td>
<td>5290 Sycamore. KC. MO 64129</td>
</tr>
<tr>
<td>3. Fleetridge Elementary</td>
<td>13001 E. 55th St. Kansas City, MO 64133</td>
</tr>
<tr>
<td>4. Little Blue Elementary</td>
<td>13900 E. 61st St. Kansas City, MO 64133</td>
</tr>
<tr>
<td>5. Laurel Hills Elementary</td>
<td>5401 Lane Rd. Raytown, MO 64133</td>
</tr>
<tr>
<td>7. Robinson Elementary</td>
<td>6707 Woodson Rd. Kansas City, MO 64133</td>
</tr>
<tr>
<td>8. Spring Valley Elementary</td>
<td>8838 E. 83rd St. Raytown, MO 64138</td>
</tr>
<tr>
<td>9. Southwood Elementary</td>
<td>8015 Raytown Rd. Raytown, MO 64138</td>
</tr>
<tr>
<td>10. Westridge Elementary</td>
<td>8500 E. 77th St. Kansas City, MO 64138</td>
</tr>
<tr>
<td>11. Northwood School</td>
<td>4400 Sterling. Kansas City, MO 64133</td>
</tr>
<tr>
<td>12. Raytown Middle</td>
<td>4900 Pittman Road. Kansas City, MO 64133</td>
</tr>
<tr>
<td>13. Central Middle</td>
<td>10601 E. 59th St. Raytown, MO 64133</td>
</tr>
<tr>
<td>14. South Middle</td>
<td>8401 E. 83rd St. Raytown, MO 64138</td>
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<tr>
<td>15. Raytown High</td>
<td>6019 Blue Ridge Blvd. Raytown, MO 64133</td>
</tr>
<tr>
<td>16. South High</td>
<td>8211 Sterling. Raytown, MO 64138</td>
</tr>
<tr>
<td>17. Herndon Career Center (Buildings A, B,C,D)</td>
<td>11501 E. State Route 350. Raytown, MO 64138</td>
</tr>
<tr>
<td>18. Raytown Success Academy</td>
<td>10750 E. 350 Highway. Raytown, MO 64138</td>
</tr>
</tbody>
</table>