

NOTICE TO BIDDERS

The Grand Prairie Independent School District will receive sealed proposals for cabling as follows:

NOVEMBER 12, 2008

RFP 09-02 - 10:45 AM – Dubiski High School

RFP 09-03 - 11:00 AM – Eisenhower Elementary School

RFP 09-04 - 11:15 AM – Rayburn Elementary School

at which time all responses will be publicly opened

PRE-PROPOSAL MEETINGS WILL BE CONDUCTED ON OCTOBER 22, 2008 AT THE EDUCATION CENTER, 2602 S. Beltline Road, Grand Prairie, TX 75052.

9:00 AM – Eisenhower Elementary School

10:30 AM – Rayburn Elementary School

1:30 PM – Dubiski High School

Prospective offerers bidders may secure further information at The school district reserves the right to reject any and/or all bids and to waive all formalities and irregularities in bidding.

PROPOSAL ENVELOPES MUST BE ADDRESSED TO:

Grand Prairie ISD
Purchasing Department
2602 South Belt Line Road
Grand Prairie, TX 75052

and

PLAINLY MARKED:

RFP 09-02 - Dubiski High School
RFP 09-03 - Eisenhower Elementary School
RFP 09-04 – Rayburn Elementary School

Bids may be submitted on any/or all items, unless stated otherwise.

Any bid received later than the specified time, whether delivered in person or mailed, shall be disqualified and will remain unopened. Failure to respond to this invitation will remove your name from the bid list. If you cannot bid at this time and desire to remain on the bid list, please submit a **NO BID** on the bid form and return.

GRAND PRAIRIE INDEPENDENT SCHOOL DISTRICT

PROCEDURES FOR SEALED BID OR PROPOSALS

1.0.0 GENERAL CONDITIONS

- 1.1.0 APPLICABILITY - These conditions are applicable and form a part of the contract documents in each equipment and/or service contract, and a part of the terms of each purchase order for items of equipment and/or service included in the specifications and bid forms issued herewith.
- 1.2.0 WITHDRAWAL OF BIDS - Any bid or proposal may be withdrawn by the contractor prior to the scheduled time for opening. Any request by a bidder to withdraw a bid must be in person or in writing and submitted to the Director of Purchasing prior to the scheduled time for opening bids. Any bid that is received after the time specified shall not be considered and may be returned unopened to the bidder.
- 1.3.0 BIDS SHALL BE SUBMITTED ON THESE FORMS - Deviations to the General Conditions and/or Specifications shall be conspicuously noted in writing by the bidder and shall be included in the bid.
- 1.4.0 CONTRACTORS WHO DO NOT BID are requested to notify the Grand Prairie Independent School District (GPISD) Purchasing Department in writing if they wish to receive future bids. Failure to do so will result in their being deleted from our contractor list.
- 1.5.0 GPISD reserves the right to waive any or all bid irregularities, formalities, or other technicalities, to be the sole and independent judge of quality and suitability of any products offered, and may accept or reject any bid in its entirety, or may reject any part of any bid without affecting the remainder of that bid, and may award the individual items on this bid in any combination or in any way to best serve the interests of GPISD as it perceived those interests to be in its sole discretion.
- 1.6.0 GPISD will enter into contractual relationships only with those contractors who have, through word and action, affirmed that they comply with all applicable existing laws or executive orders to insure equal employment opportunities, without regard to race, creed, color, sex, or national origin. Minority contractors are encouraged to compete in providing goods and services to the District. GPISD does not operate under a set-aside program.

2.0.0 SPECIFICATIONS may be those developed by the Using Department or by the Manufacturer to represent items of regularly manufactured equipment.

2.1.0 DISTRICT SPECIFICATIONS have been developed by the Using Department to show minimal standards as to the usage, materials, and contents based on their needs.

2.2.0 MANUFACTURER'S SPECIFICATIONS (Design Guide), when used by the District, are to give the bidder information as to the type and kind requested. Proposals on any reputable manufacturer's regularly produced product of such items similar and substantially equivalent will be considered.

2.3.0 Whenever an article or material is defined by describing a proprietary product or by using the name of a manufacturer or brand name, the term "or equal" if not inserted shall be implied. The specified article or material shall be understood as indicating the type, function; minimum standard of design, efficiency and quality desired and shall not be construed as to exclude other manufactured products of comparable quality, design and efficiency. GPISD reserves the right to make final decisions as comparable items. Be very certain that items upon which you bid and deliver are equal to items listed. Materials, which are not equal, will be returned to the contractor, transportation charges collect. Contractor will reimburse GPISD for items returned at invoice cost within 30 days.

3.0.0 EVALUATION OF BIDS/PROPOSALS, in accordance with Article 2368a.3, Section 5, Reviews of bids/proposals are subject to the evaluation of the user department and subsequent recommendation. The following AWARD CRITERIA will be used.

| | |
|--|-----------|
| 3.0.1 Purchase Price | 25 points |
| 3.0.2 Attendance at all pre-proposal meetings | 15 points |
| 3.0.3 Completeness of bid package as specified | 20 points |
| 3.0.4 Project management approach | 15 points |
| 3.0.5 Quality of references and experience | 25 points |

3.1.0 PREFERENTIAL REQUIREMENT - GPISD, as a governmental agency of the State of Texas, may not award a contract for general construction, improvements, services or public works projects a nonresident bidder unless the nonresident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located (Article 601g V.T.C.S.).

3.2.0 IDENTICAL BIDS - In cases where bidding is required for proposed

contracts, and more than one bidder submitted the lowest and best bids (identical bids), the bidder who is a resident of the District shall be selected by the governing body. If two or more bidders submitting the lowest and best bids are residents of the District, one of the resident bidders shall be selected by the casting of lots.

3.3.0 AWARD of BID; BID SUMMARY: The GPISD reserves the right to award a separate contract to more than one contractor for each item/group/service or to award on contract for the entire bid. All contractors will receive a statement of bid award. Contractors desiring a copy of the bid summary may request such by enclosing a self-addressed stamped envelope to the Purchasing Office.

4.0.0 CONTRACTS

4.1.0 CONTRACTS FOR PURCHASE will be put into effect by means of a purchase order(s) executed by the Purchasing Department or the User Department after awards have been made.

4.2.0 ALL CONTRACTS AND AGREEMENTS between bidders and the GPISD shall strictly adhere to the statutes as set forth in the Uniform Commercial Code as last amended in 1977 by the American Law Institute in the National Conference of Commissioners on uniform state laws.

4.3.0 The District's obligation is payable only and solely from the funds available for the purpose of this purchase. Lack of funds shall render this contract null and void to the extent funds are not available and any delivered but unpaid for the Buyer will return goods to the Seller. Do not include Federal Excise, State or City Sales Tax. Entity shall furnish exemption certificate.

5.0.0 DISCLOSURES

5.1.0 Non-Collusion - By signing this statement, a bidder affirms that, to the best of his/her knowledge, the bid has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give them an unfair advantage over other bidders in the award of this bid. Neither has the bidder offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with the bid submitted. BIDDER SHALL NOTE any and all relationships that might be a conflict of interest and include such information with the bid.

5.3.0 Felony Conviction - The person or entity responding to this invitation must give notice to the District if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in this conviction of a felony (This requirement does not apply to a publicly held corporation.).

5.4.0 BIDDER SHALL NOTE any and all relationships that might be a conflict of interest and include such information with the bid. A list of current board members and the superintendent may be reviewed at

http://www.gpisd.org/departments/business/purchasing/bids_proposals.htm

6.0.0 CONDUCT WHILE ON DISTRICT PREMISES - All personnel that conduct work of any nature on District premises, including but not limited to successful contractor(s), sub-contractors, service technicians, etc. will be required to comply with the same standards applicable to the employees of the GPISD as referenced in the Auxiliary Services Handbook.

6.1.0 Standards of conduct - A disregard of any one of the following rules will be subject to disciplinary action and including immediate termination of contract(s).

6.1.1 Use or possession of alcohol or illegal drugs at work, coming to work under the influence of alcohol or drugs (illegal intoxication is not required.); or the possession of drugs or attempt to take part in the sale or illegal handling of drugs

6.1.2 Use of profanity or crude language

6.1.3 Violation of health or safety rules

6.1.4 Fighting and any other attempt to injure or threaten to injure another person

6.1.5 Willful destruction of District property or property of others

6.1.6 Lack of courtesy to students, employees, parents, or guests; Contact with students in any manner that is not professional, businesslike and job related is strictly prohibited. (This includes dating, phone calls or any other action taken, or interpreted as such, to develop an association more than a level of contractor - District relationship.)

6.1.7 Additionally, workers must adhere to a dress code conducive to promoting a positive learning environment in or on GPISD property. Specifically, GPISD prohibits pictures, emblems, bumper stickers, or writings on clothing that are lewd, offensive, vulgar, or obscene or depict or advertise tobacco products, alcoholic beverages of any kind, drugs, or any other substance.

6.1.8 Finally, no person shall possess firearms or articles construed to be illegal weapons while on District property, including but not limited to buildings, grounds and/or parking areas.

7.0.0 STATEMENT OF QUALIFICATIONS, when required, must include a description of organizational experience, references and capabilities.

7.1.0 Organizational Experience: Contractor must describe their qualifications and experience to perform the work described in this invitation.

7.2.0 References: Proposals must include at least three references, preferably state and local government organizations where the contractor currently provides the type of services and/or products requested. Reference listings must include organization names, addresses, and contact person and telephone number.

8.0.0 SECURITY

8.1.0 BID SECURITY shall be furnished with the bids, or prior to the award of the contract. BID SECURITY is required whenever either a PAYMENT BOND or PERFORMANCE BOND IS REQUIRED AS LISTED BELOW. The Bid Security shall consist of a certified check, cashier's check or a bid bond in the amount of five percent (5%) of the total bid which shall be a guarantee to furnish Performance and Payment Bonds. Bid Security shall be to GPISD. The successful bidder's security will be retained until the Contract is signed and the required Performance and Payment Bonds have been furnished. If any bidder refuses to enter into a contract within thirty (30) days, or fails to furnish the required bonds, GPISD will retain the Bid Security as liquidated damages, but not as a penalty.

8.2.0 PAYMENT BONDS are required for bids in excess of \$25,000.00. PERFORMANCE BONDS are required for bids in excess of \$100,000.00. The successful bidder will furnish a performance and payment bond in an amount equal to one hundred percent (100%) of the total amount of the contract sum when required as specified in the amounts listed above. Bonding Company (underwriter) shall be currently registered with the Secretary of State and with the State Board of Insurance. Surety must be acceptable to Owner. This bond shall be conditioned upon the faithful performance of the work in accordance with the plans, specification, and contract documents. Said bond shall be for the protection of GPISD and of all claimants supplying labor and material as hereinafter defined, in the prosecution of the work provided in said contract. (Article 5160, Texas School Law Bulletin) This performance and payment bond shall be presented, to owner, within ten (10) days or prior to beginning work, whichever is less.

Each project will be evaluated to determine in either, both OR no bond will be required.

9.0.0 INSURANCE shall be provided by the successful contractor, in a company or companies licensed to do business in the State of Texas. Such insurance as will protect the Contractor and the District from claims set forth below, which may arise out of, or result from, the operations under the contract. The Contractor shall be a subscriber to the Texas Workers' Compensation Act for Workers' Compensation Insurance. The contractor shall file with the Director of Purchasing, before work is begun, certificates of such insurance which shall be subject to approval by the District as to the company providing insurance and the manner and adequacy of insurance protection.

9.1.0 Such policies of insurance shall be written by companies authorized by the Texas Department of Insurance to conduct business in the state and shall be satisfactory to the District. Contractor shall not commence work under this Agreement until satisfactory evidence of such insurance has been delivered to, and approved by the District.

9.2.0 Self-Insurance: A contractor who self-insures for workers compensation must possess a Certificate of Authority to Self-insure issued by the Texas Workers Compensation Commission as a subscriber to the Workers' Compensation Act. By signing below, the bidder/prospective Contractor certifies that it possesses such certificate, and shall furnish a copy of the Certificate of Self Insurance with Bid Invitation.

9.3.0 The Certificate of Insurance must be presented prior to start of service. The policy must reflect Grand Prairie I.S.D. as "additional insured" or "co-insured". The amount of deductibles and self-insurance retention must be shown on Certificate of Insurance.

9.4.0 The Contractor shall, for the duration* of this Agreement, keep in force the following insurance:

9.4.1 Worker's Compensation Insurance

- a) Worker's compensation coverage shall be maintained for not less than the State of Texas statutory limits.
- b) Employer's Liability Insurance shall be maintained with minimum limits of not less than \$500,000.
- c) The policy shall contain a waiver of subrogation in favor of Grand Prairie ISD

9.4.2 Commercial General Liability Insurance: shall include coverage for Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability insuring the indemnity provision contained in this Agreement.

- a) Combined limits of \$1,000,000 per occurrence for bodily injury and property damage.
- b) Annual aggregate limit of \$2,000,000
- c) Grand Prairie ISD and their officials shall be listed as additional insured.

- 9.4.3 Business Commercial Automobile Liability Insurance: shall include coverage for owned/leased vehicles, non-owned vehicles, and hired vehicles used by Concessionaire, its employees, or its agents.
- a) Bodily injury of \$500,000 per person and \$500,000 per occurrence.
 - b) Property damage limit of \$100,000 per occurrence.
 - c) Aggregate limit of \$1,000,000.
 - d) Grand Prairie and their officials shall be listed as additional insured.

The District requires ten (10) days WRITTEN NOTICE prior to cancellation of ANY INSURANCE.

9.5.0 The Contractor shall either: (1) require each of its sub-contractors to procure and to maintain during the life of the sub-contract, Sub-contractor's Workers' Compensation Insurance as a subscriber to the act, Comprehensive General Liability, Automobile Liability, and Property Damage Liability Insurance of the type and in the same amounts as specified above, or (2) insure the activity of its sub-contractors in its own policy(ies).

9.5.1 Persons providing services on the project, otherwise referred to as "subcontractor(s)", includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity, which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage contractors, office supply deliveries, and delivery of portable toilets.

9.6.0 By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the District that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division

of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.7.0 The contractor's failure to comply with any of these provisions is a breach of contract by the contractor, which entitles the District to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

9.8.0 The contractor shall post a notice on each project site informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage. This notice does not satisfy other posting requirements imposed by the Act or other commission rules. This notice must be printed with a title in at least 30-point bold type and text in at least 19-point normal type, and shall be in both English and Spanish and any other language common to the worker population.

10.0.0 OTHER REQUIREMENTS

10.1.0 LIQUIDATED DAMAGES of \$1000 per day will be assessed by GPISD for each calendar day that the project remains incomplete and unacceptable after the contract time has expired as specified by number of days needed to complete project indicated on bid response form. This sum, for compensation otherwise to be paid, will be determined to be the maximum amount of liquidated damages which GPISD will sustain per diem by the failure of the contractor to complete the work by the time stipulated. This sum shall not be construed in any sense as a penalty.

Extent of
LIQUIDATED
DAMAGES will be
determined with
each project.

10.2.0 MATERIALS IN PLACE - The District will not be responsible for damage of materials "in place" due to acts of vandalism, fire, weather, or any other cause. All materials, equipment for installation, etc. shall remain the property of and the responsibility of the supplier until inspected and accepted by an official of the GPISD; and disapproval, if any, shall be based exclusively on apparent damage, defect or deviation from the specifications.

10.3.0 Contractor is responsible for any and all damages to GPISD property including filling of ruts, plant damage, and trash pick up, etc.

10.4.0 The Contractor shall provide a qualified supervisor over all crafts and who shall have the authority to make decisions regarding any and all phases of the work.

10.5.0 Project requirements will make it mandatory that the successful bidder communicate with the Director of Purchasing or User Department prior to the initiation of any work. This communication will relate to mutual scheduling for access to the project areas and parking.

10.6.0 Contractor will be responsible for any and all OSHA regulations that are applicable to this project.

10.7.0 Contractor will be responsible for compliance with Federal/State and Local codes applicable.

11.0.0 PRESENTATION OF BIDS: All bids/proposals must be received at the Purchasing Office in a sealed document. No oral, telegraphic, telephonic, or facsimile bids will be accepted.

12.0.0 INTERLOCAL AGREEMENT CLAUSE

The Grand Prairie ISD participates in the Educational Purchasing Cooperative of North Texas (EPCNT) There are several governmental entities which utilize this organization for potential purchases. A complete list may be viewed at

http://www.epcnt.com/Current_members.htm

Governmental entities utilizing Internal Governmental contracts with the EPCNT will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than Grand Prairie ISD will be billed directly to that governmental entity and paid by that governmental entity. Grand Prairie ISD will not be responsible for another governmental entity's debts. Each governmental entity will order material/service as needed and issue the appropriate purchasing documents/contracts.

MUST RETURN THIS PAGE

Felony Conviction Notification

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states “a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony.”

Subsection (b) states “a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination contract.”

This Notice Is Not Required of a Publicly Held Corporation

(I) (We), the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

COMPANY NAME:

Check the appropriate box and sign the form.

- My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

AUTHORIZED SIGNATURE: _____

- My firm is not owned nor operated by anyone who has been convicted of a felony.

AUTHORIZED SIGNATURE: _____

- My firm is owned or operated by the following individual(s) who has/have been convicted of a felony.

Name of Felony: _____

Details of Conviction(s):

AUTHORIZED SIGNATURE: _____

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Non-Collusion Statement

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.

It is agreed by the undersigned bidder that the signed delivery of this bid/proposal represents the bidder's acceptance of the terms and conditions of this invitation to bid/offer a proposal including all specifications and special provisions.

Note: Signature of the authorized representative **MUST** be of an individual who legally may enter his/her organization into a formal contract with the Grand Prairie Independent School District.

FIRM'S NAME

NAME OF AUTHORIZED INDIVIDUAL (printed or typed)

AUTHORIZED SIGNATURE

DATE

POSITION WITH COMPANY

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BIDDER'S CERTIFICATE

This bidder, the below named firm, hereby submits bid prices as shown for furnishing the items listed herein, delivered in the quality and dimensions specified, and subject to the conditions listed under "Bid Specifications and Conditions." Bid prices shown are net and include all charges. Descriptive and illustrative material, including specifications and data sheets, and all other proposals accompanying this bid are considered to be an integral part of this bid offer.

| |
|-------------|
| FIRM'S NAME |
|-------------|

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|---------|
| ADDRESS |
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| |
|--------------|
| CITY & STATE |
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| ZIP CODE |
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| EMAIL |
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| TELEPHONE |
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| FAX |
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|----------------------|
| AUTHORIZED SIGNATURE |
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| |
|------|
| DATE |
|------|

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|-----------------------|
| POSITION WITH COMPANY |
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INTERLOCAL AGREEMENT

Should the governmental, referenced above, elect to participate in this contract, would you, (the contractor) agree that all terms, conditions, specifications, and pricing would apply? Yes No

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CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity. By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code. A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of person doing business with local governmental entity.

2 Check this box if you are filing an update to a previously filed questionnaire.
(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.

4 Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.

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CONFLICT OF INTEREST QUESTIONNAIRE FORM

CIQ Page 2

For vendor or other person doing business with local governmental entity

5 Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)

This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or business relationship. Attach additional pages to this Form CIQ as necessary.

- A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire?

Yes No

- B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity?

Yes No

- C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

Yes No

- D. Describe each affiliation or business relationship.

6 Describe any other affiliation or business relationship that might cause a conflict of interest.

7

Signature of person doing business with the governmental entity

Date

Telecommunications Cabling Installation Package Eisenhower Elementary School

Grand Prairie, Texas 75052

I. Scope

PROJECT DEFINITION: To provide a high-quality, high-performance cabling infrastructure for Eisenhower Elementary School.

DESCRIPTION OF WORK: The work to be performed consists of the furnishing of all parts, labor, and services required by the specifications to complete the construction of the telecommunications cabling installation for GPISD at Eisenhower Elementary School.

SCOPE OF WORK: Furnish, install cable trays, cables and labels, cable supports, cable ladders, cable ladder hardware, conduit sleeves, innerduct, pull robe, fire-stopping, patch panels and labels, patch panel organizers, face plate and cable labels, designation strips, data equipment racks and cabinets, inter-connection cables, mechanical and architectural revisions and other pieces of equipment as indicated on the detailed engineering drawings, schedules, and the contract document. Test the above as required.

The contractor shall supply all parts, labor, transportation, equipment, storage, fuel, power, scaffolding, tools and the like as necessary for the entire, proper, and completion of the work included in the proposal and shall install, maintain, and remove all temporary equipment and apparatus, and be responsible for the safe, proper, and lawful use and maintenance thereof, and shall do everything necessary for the complete construction of this work, and all things properly incidental thereto, as shown on the drawings, called for in the specifications, or reasonable implied there from in accordance with the contract drawings.

SPECIAL CONSIDERATIONS: This project consists of the existing school and a 30,000 sq. ft. addition. Work on the addition will commence as soon as possible in alignment with the building process. Work on the existing school will begin on or about June 5, 2009.

SUB-CONTRACTORS: GPISD will allow sub-contractors. All sub-contractors are REQUIRED to have the certifications listed in the RFP (CommScope). GPISD reserves the right to disallow any sub-contractor.

ACCEPTED SOLUTIONS: This project will require certification with the following:

CommScope Uniprise

Accepted part numbers for each solution are listed within the RFP.

DEADLINE/TIMEFRAMES: All work is to be coordinated through the Technology Department for the Grand Prairie Independent School District. GPISD will provide a single point of contact for this project.

Specification Available: October 22, via web site
<http://www.gpisd.org/gpisd/finance/purindex.htm>
 Pre-proposal conference: October 22, 2008
 Proposals Due: November 12, 2008
 Deliver proposal package to: Dave Crittenden
 GPISD Purchasing Department
 2602 S. Belt Line Rd
 Grand Prairie, TX 75052

REFERENCE STANDARD: A general standard of reference for this project is Eisenhower Elementary School, Grand Prairie 75052.

II. Pathways

This building presents some challenges in the distribution of telecommunications cabling. Sleeves have been provided for most cable pathways as necessary (through concrete block walls, within certain architectural elements, etc). The selected contractor is to work with GPISD regarding any further sleeves. The cabling contractor is required to perform the necessary penetrations, provide the necessary components, and complete the installation of any additional sleeves or conduits outside of the General Contractor's scope of work.

III. Equipment Rooms, Telecommunications Rooms

There shall be one main equipment room and one intermediate equipment room.

IV. Composition of building by area and supporting notes

| <i>Classroom</i> | <i>Patch Panel</i> | <i>Data Drops</i> | <i>Data Pull to Location</i> | <i>AV/Peerless</i> | <i>CMU</i> |
|------------------|--------------------|-------------------|------------------------------|--------------------|------------|
| 1 | N/A | 2 | Room Enclosure | Yes | No |
| 2 | N/A | 8 | MDF | Yes | No |
| 3 | N/A | 2 | MDF | No | No |
| 4 | N/A | 8 | MDF | Yes | Yes |
| 5 | N/A | 2 | Room Enclosure | Yes | Yes |
| 6 | N/A | 2 | Room Enclosure | Yes | No |
| 7 | N/A | 2 | Room Enclosure | Yes | No |
| 8 | N/A | 2 | Room Enclosure | Yes | Yes |
| 9A | N/A | 2 | Room Enclosure | Yes | No |
| 10 | N/A | 2 | Room Enclosure | Yes | No |
| 11 | N/A | 2 | Room Enclosure | Yes | Yes |
| 12 | N/A | 2 | Room Enclosure | Yes | No |
| 13 | N/A | 2 | Room Enclosure | Yes | No |
| 14 | N/A | 2 | Room Enclosure | Yes | No |
| 15A | N/A | 2 | Room Enclosure | Yes | No |
| 15B | N/A | 2 | Room Enclosure | Yes | Yes |
| 16 | N/A | 2 | Room Enclosure | Yes | No |
| 17 | N/A | 2 | Room Enclosure | Yes | No |

| | | | | | |
|-----|-----|----|----------------|-----|-----|
| 18 | N/A | 2 | Room Enclosure | Yes | No |
| 19 | N/A | 2 | Room Enclosure | Yes | No |
| 20 | N/A | 2 | Room Enclosure | Yes | Yes |
| 21 | N/A | 2 | Room Enclosure | Yes | No |
| 22 | N/A | 2 | Room Enclosure | Yes | No |
| 23 | N/A | 2 | Room Enclosure | Yes | No |
| 24 | N/A | 2 | Room Enclosure | Yes | Yes |
| 25 | N/A | 2 | Room Enclosure | Yes | No |
| 26 | N/A | 2 | Room Enclosure | Yes | Yes |
| 27 | N/A | 2 | Room Enclosure | Yes | Yes |
| 28 | N/A | 2 | Room Enclosure | Yes | No |
| 29 | N/A | 2 | Room Enclosure | Yes | No |
| 30 | N/A | 2 | Room Enclosure | Yes | No |
| 31 | N/A | 2 | Room Enclosure | Yes | No |
| 34A | 48 | 38 | 34A | Yes | N/A |
| 34B | 48 | 38 | 34B | Yes | N/A |
| 33 | N/A | 2 | Room Enclosure | Yes | N/A |
| 33E | N/A | 2 | MDF | No | N/A |
| 37 | N/A | 6 | MDF | No | N/A |
| 36 | N/A | 2 | MDF | No | N/A |
| 41 | N/A | 4 | MDF | No | N/A |
| 43 | N/A | 6 | MDF | No | N/A |
| Gym | N/A | 4 | IDF | No | N/A |
| 51A | N/A | 2 | IDF | No | N/A |
| 51B | N/A | 2 | IDF | No | N/A |
| 51C | N/A | 4 | IDF | No | N/A |
| 93A | N/A | 6 | IDF | Yes | N/A |
| 93B | N/A | 6 | IDF | Yes | N/A |
| 94 | N/A | 6 | IDF | Yes | N/A |
| 96 | N/A | 6 | IDF | Yes | N/A |
| 104 | N/A | 6 | IDF | Yes | N/A |
| 92 | N/A | 4 | IDF | No | N/A |
| 91 | N/A | 6 | IDF | Yes | N/A |
| 98 | N/A | 6 | IDF | Yes | N/A |
| 101 | N/A | 6 | IDF | Yes | N/A |
| 102 | N/A | 6 | IDF | Yes | N/A |
| 49A | N/A | 2 | IDF | No | N/A |
| 44D | N/A | 4 | IDF | No | N/A |
| 50A | N/A | 4 | IDF | No | N/A |
| 50B | 48 | 4 | 50B | No | N/A |
| 50 | N/A | 38 | 50B | No | N/A |
| 55 | N/A | 4 | IDF | No | N/A |
| 55A | N/A | 2 | IDF | No | N/A |
| 52 | N/A | 14 | IDF | No | N/A |
| 56 | N/A | 4 | IDF | No | N/A |

| | | | | | |
|-----|-----|---|-----|-----|-----|
| 57 | N/A | 4 | IDF | No | N/A |
| 58 | N/A | 4 | IDF | No | N/A |
| 54 | N/A | 4 | IDF | No | N/A |
| 53 | N/A | 2 | IDF | No | N/A |
| 59 | N/A | 2 | IDF | No | N/A |
| 64 | N/A | 4 | IDF | No | N/A |
| 61 | N/A | 4 | IDF | No | N/A |
| 62 | N/A | 2 | IDF | No | N/A |
| 63 | N/A | 2 | IDF | No | N/A |
| 63A | N/A | 2 | IDF | No | N/A |
| 72 | N/A | 4 | IDF | No | N/A |
| 75 | N/A | 8 | IDF | Yes | N/A |
| 76 | N/A | 8 | IDF | Yes | N/A |
| 77 | N/A | 8 | IDF | Yes | N/A |
| 78 | N/A | 8 | IDF | Yes | N/A |
| 79 | N/A | 8 | IDF | Yes | N/A |
| 80 | N/A | 8 | IDF | Yes | N/A |
| 81 | N/A | 2 | IDF | No | N/A |
| 82 | N/A | 6 | IDF | Yes | N/A |

All modifications shall be approved by GPISD prior to installation.

V. Typical Configurations

A. New Classrooms/Office Areas:

1. Telecommunications data outlet locations are indicated on the Drawing with a circled "C". Rooms/areas are equipped with various single-gang (2" x 4") telecommunications outlet boxes installed by others at approximately 18" AFF. In classrooms, the teacher's outlet is annotated by the "AV" symbol. The "AV" symbol includes 2 data drops for the teacher. See detail on page E5.02 of the plans for exact specifications. Provide horizontal UTP cables at each outlet location for data to complete the required quantity as specified in the table. In rooms with ceiling projectors, provide two horizontal UTP cables to the Peerless Ceiling tile. Route each data cable from each outlet location to the specified location annotated in the table. Terminate the horizontal UTP data cables at the outlet locations on the modular jacks installed in a faceplate.
2. For the data projector, install the following GPISD provided cables: VGA/DB-15 cable, S-Video Cable, 1/8" Stereo Audio, Left RCA Audio cable (white), Right RCA Audio Cable (red), Composite Video cable (yellow) and the AV faceplate. Pre-finished factory patch cord cables shall be routed from the video wall plate as specified to the data projector in the Peerless Tile mount. The cables should be wrapped in a protective bag at each end to protect the pre-terminated connectors from dust in the construction phase.

3. Provide each area marked with the “Hubbell Enclosure” symbol with one 4-strand armored fiber cable, routed from the MDF/IDF, as specified in the table, to the Hubbell enclosure within the area. Install the enclosure as specified at approximately 96” AFF to the top edge of the enclosure. An 8” x 8” telecommunications outlet box is provided by others at approximately 90” AFF for the purpose of furnishing cabling access to the enclosure within the classroom. Terminate each end of each fiber strand with a SC connector into a modular jack into the patch panel.

B. Computer Labs:

1. Provide each computer lab with one 4-strand armored fiber cable, routed from the MDF/IDF, as specified in the table, to an enclosure within the computer lab. Terminate each end of each fiber strand with SC connectors into a modular jack into the patch panel. Install the enclosure as specified at approximately 96” AFF to the top edge of the enclosure. An 8” x 8” telecommunications outlet box is provided by others at approximately 90” AFF for the purpose of furnishing cable access to the enclosure within the computer lab. Provide horizontal UTP data cabling from the telecommunications outlet locations within the computer lab to the enclosure within the computer lab. Terminate horizontal UTP data cabling in the enclosure on a modular patch panel. Terminate the horizontal UTP data cables at the outlet locations on modular jacks installed in a faceplate.
2. For the data projector, install the following GPISD provided cables: VGA/DB-15 cable, S-Video Cable, 1/8" Stereo Audio, Left RCA Audio cable (white), Right RCA Audio Cable (red), Composite Video cable (yellow) and the AV faceplate. Pre-finished factory patch cord cables shall be routed from the video wall plate as specified to the data projector in the Peerless Ceiling Tile mount. The cables should be wrapped in a protective bag at the ceiling end to protect the pre-terminated connectors from dust in the construction phase.

C. Existing Areas:

1. In rooms with ceiling projectors provide two horizontal UTP cables to the Peerless Ceiling tile. Route each data cable from the Peerless tile to the classroom enclosure. Terminate the horizontal UTP data cables at the outlet locations on the modular jacks installed in a faceplate behind the existing enclosure where possible. If existing wall is CMU, then install using latch duct and surface mount box as close to existing enclosure as possible.
 - a. For the data projector, conduit has been provided by others near the existing enclosure. Install the following GPISD provided cables: VGA/DB-15 cable, S-Video Cable, 1/8" Stereo Audio, Left RCA Audio cable (white), Right RCA Audio Cable (red), Composite Video cable (yellow) and the AV faceplate. Pre-finished factory patch cord cables shall be routed from the

video wall plate as specified to the data projector in the Peerless Tile mount. The cables should be wrapped in a protective bag at each end to protect the pre-terminated connectors from dust in the construction phase.

- b. In room 13, run one 4-strand armored fiber cable, routed from the MDF room to an enclosure within the classroom. Terminate the classroom end of each fiber strand with a SC connector into a modular jack into a Surface Mounted Box (SMB). Terminate the MDF end of each fiber strand into an existing ST connector into an existing enclosure as specified by GPISD. Install GPISD provided enclosure in room 13.

D. Backup Telephone/Office FAX:

1. Provide two horizontal UTP voice cables from the IDF room to the Principal Office. (White, Cat 6 CommScope)
2. Provide two horizontal UTP voice cables from the IDF room to the Reception area. (White, Cat 6 CommScope)

E. Speaker Locations:

1. New speaker cable will be pulled to all areas. New construction will be completed during the construction phase. Existing areas will be started after June 5, 2009. Contractor shall provide one horizontal UTP yellow Cat 5e cable from the MDF/IDF room (which ever room is closer) to the center of all classrooms, offices, hallways or any other location as marked on the Plan. All cables shall have service loop of 15' and must be secured with Velcro. Contractor shall mount each GPISD provided speaker in accordance with GPISD guidelines within the ceiling grid and terminate the cable on the speakers' inputs using Dolphin beanies DC-1000-P. Contractor shall insure the speaker cable are terminated in the MDF/IDF room in standard 66 blocks and framed out appropriately.

F. Horn Locations:

1. Contractor shall provide one horizontal UTP green Cat 5e cable from the MDF/IDF room (which ever room is closer) to each location as identified by the plan. All cables shall have a 15" service loop and must be secured with a J-hook and Velcro (Panduit Tak-Tape, TTS-35RX0). Contractor shall mount each GPISD provided horn in accordance with GPISD guidelines within the ceiling grid and terminate the cable on the horn's inputs using Dolphin beanies DC-1000-P. Contractor shall insure the horn cables are terminated in the MDF/IDF room in standard 66 blocks and framed out appropriately.

G. GPS Bell System:

1. Contractor shall provide one horizontal UTP yellow Cat 5e cable from the MDF/IDF room to the location as identified by GPISD. The contractor shall be responsible for providing and terminating a Cat 6 insert, which will be mounted into a single/duplex junction box. The jack location shall be anchored approximately 4" above the ceiling grid. Contractor shall provide a minimum of a 15' service loop, anchored to the wall via a J-hook and Velcro (Panduit Tak-Tape, TTS-35RX0). Cables at the MDF/IDF will be terminated into the camera patch panel.

H. Camera Locations:

1. Contractor shall provide one horizontal UTP blue Cat 6 cable from the MDF room to each location as identified by the plan. GPISD personnel shall be responsible for providing & mounting the cameras. The contractor shall be responsible for providing and terminating a Cat 6 insert, which will be mounted into a single/duplex junction box. The jack location shall be anchored approximately 4" above the ceiling grid. **Contractor shall provide a 2' service loop only, anchored to the wall in a J-hook with a Velcro tie wrap.** Cables at the MDF will be terminated on a separate patch panel. Wiring scheme to be used is 568-B. MDF end will be terminated into a separate patch panel into a modular cat 6 jack.
2. Video Cable: Contractor shall provide two horizontal RG6 cables from the MDF to the Main Office in the reception area. Terminate the cable at both ends for BNC. Route the Main Office end to faceplate one foot below the ceiling grid as indicated by GPISD. MDF end will be terminated into the camera patch panel.

I. Existing MDF to IDF:

1. Provide one 12-strand armored fiber cable, routed from existing MDF to new IDF. Terminate each end of each fiber strand with a SC connector into Contractor provide fiber enclosure.

J. Existing MDF to IDF:

1. Provide one 25-strand copper feeder cable, routed from existing MDF to new IDF. Terminate on left side of 66 blocks, 25 pair per block.

K. Peerless Tiles:

1. Contractor shall install GPISD provided peerless ceiling tile in each room as annotated on the plan. Each Peerless Tile will come with the standard mounting hardware. The Contractor shall be responsible for all additional mounting

hardware and will coordinate location with GPISD. Each tile will be secured per manufacturer instructions by a minimum of 1 supporting wire on each corner of the tile.

2. In existing rooms, the electrical outlet has previously been installed by others. The Contractor will coordinate the installation of the Peerless tile with the onsite GC so the electrician can move the existing ceiling outlet from the ceiling tile to the Peerless mount.
3. Peerless tile will be installed approximately 8' from throw wall. Throw range for projector on an 84" diagonal screen (screen provided by owner and installed by others) is 7' 11" to 9' 7".

L. Existing Classrooms AV Faceplates:

1. Contractor shall install double gang GPISD provided faceplate using Contractor provided self tapping metal screws (4 per faceplate).

VI. Removal of Existing Cable:

Contractor is responsible for the removal of the existing telephone and speaker cable in the existing section of the school. Wherever possible, remove old copper cable from classroom/hallways and office ceilings.

VII. Special Note for "AV" symbol in existing classrooms

There is no "AV" symbol used in existing rooms, however each existing classroom will have a data projector system installed. The conduit, box and electrical outlet have been previously installed by others. The table indicates each room that will have an AV system installed. There will only be an AV face plate at these locations – there will not be any teacher data drops or electrical as show in the AV detail on page E5.02 of the plans. This is in the existing building only. In the new construction, the AV symbol is as shown on page E5.02 of the plans.

VIII. Product Standards

A. Horizontal Cabling Requirements

1. Horizontal UTP Data Cable: Fully ANSI/EIA/TIA 568B Category 6 compliant cable composed of four (4) individually insulated unshielded twisted pairs (UTP) of 24 AWG solid copper conductors, plenum compliant, and plenum rated flexible Flamarrest PVC jacket. Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: 7504-WH, color white (Cat 6)

2. Horizontal UTP Speaker Cable: Fully ANSI/EIA/TIA 568B Category 5e compliant cable composed of four (4) individually insulated unshielded twisted pairs (UTP) of 24 AWG solid copper conductors, plenum compliant, and plenum rated flexible Flamarrest PVC jacket. Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: 5E55 Data Pipe YL, color yellow
3. Horizontal UTP Horn Cable: Fully ANSI/EIA/TIA 568B Category 5e compliant cable composed of four (4) individually insulated unshielded twisted pairs (UTP) of 24 AWG solid copper conductors, plenum compliant, and plenum rated flexible Flamarrest PVC jacket. Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: 5E55 Data Pipe GR, color green
4. Horizontal UTP Camera Cable: Fully ANSI/EIA/TIA 568B Category 6 compliant cable composed of four (4) individually insulated unshielded twisted pairs (UTP) of 24 AWG solid copper conductors, plenum compliant, and plenum rated flexible Flamarrest PVC jacket. Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: 7504-BL, color blue (Cat 6)
5. 4 Strand Armored Fiber Cable: Plenum rated multimode fiber cable shall be 62.5/125 micron diameter with dual window of 1310/1550 nm with industry standard color coding. Cable shall meet EIA/TIA 492BAAA (Detailed specification for Class 1A dispersion unshifted Multi-Mode Optical Waveguide/Fibers Cable used in communications system). Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: P-004-DZ-6F-FSUOR
6. 12 Strand Armored Fiber Cable: Plenum rated multimode fiber cable shall be 62.5/125 micron diameter with dual window of 1310/1550 nm with industry standard color coding. Cable shall meet EIA/TIA 492BAAA (Detailed specification for Class 1A dispersion unshifted Multi-Mode Optical Waveguide/Fibers Cable used in communications system). Provide quantity necessary to cable all locations indicated in this document.
 - a. CommScope: P-012-DZ-6F-FSUOR
7. 25 Pair Cable: Plenum rated Category 3, 2010 LAN cable, 25 pair.
 - a. CommScope: 107765992

B. Termination Hardware: Coordinate layout of termination hardware with GPISD before installation.

1. Faceplates:

a. Wall-mounted outlets: Provide quantity of faceplate with 1/3 size flat module inserts as indicated. Where all positions of the faceplate are not filled with jacks, provide 1/3 size blank inserts to fill unused positions in the faceplate.

i. CommScope: UNF-D-4P (Ivory)

2. Modular Jacks

a. Horizontal UTP cable shall be terminated on an ANSI/EIA/TIA 568B Category 6 compliant RJ45 modular mini-jack.

i. CommScope: Modular Jack, UNJ-600-IV (Cat 6)

3. Unshielded twisted pair patch panels

a. Twisted-pair terminations shall be fully ANSI/EIA/TIA 568B Category 6 compliant. Provide Snap-In Face plate Patch Panels necessary to terminate all horizontal UTP data cabling in the enclosure within the classroom and MDF/IDF.

i. CommScope: UNP-MOD-48P

ii. CommScope: UNP-MOD-24P

C. Fiber optic patch panels (MDF/IDF room)

1. Provide enclosures, housing, and bulk heads as necessary to terminate all fiber optic cabling. Provide connector-housing panels as necessary to terminate all fiber. Provide each unit with a protective front door and blank panels necessary to fill unused cavities.

a. CommScope: RFE-FXD-EMT-BK/4U

D. Fiber optic connectors

1. Fiber optic interfaces shall be of SC type unless otherwise specified. Each connector will use a U/V or adhesive epoxy to firmly adhere to the glass strand to the connector. The connector ferrule shall be ceramic. The connector must provide .3 dB typical attenuation or less. All installed connectors require buffer tubing on all cable strands not terminated in a cabinet or rack.

- a. CommScope: MultiMode Fiber connector, MFC-SCU-09

E. BNC Connectors

1. CommScope: UNA-BNC-BNC

F. RG6 Cable

1. CommScope: 2275V

G. Surface Mount Box

1. CommScope: UNMMB-4P-IV
2. CommScope: UNSMB-2P-IV

IX. Hardware, Cable Assemblies and Accessories

1. Labels: Telecommunications: Provide labeling as indicated.
 - a. Labels shall have a white background and black print.
 - b. Lettering shall be bold print, preferable ½” in height. Height may be adjusted as necessary to fit actual print within a specified area.
 - c. Labeling shall be as recommended by the manufacturer of the product being labeled and/or as specified.
2. Labels: Speakers & Horns: Provide labeling as indicated.
 - a. Labels shall have a white background and black print
 - b. Lettering shall be bold print, preferable ½” in height. Height may be adjusted as necessary to fit actual print within a specified area.
 - c. Labeling shall be as recommended by the manufacturer of the product being labeled and/or as specified.
 - d. Label shall be affixed 2’ from the end of the cable on the speaker/horn side – above the ceiling grid.
 - e. Below the ceiling grid, on the actual speaker a label matching the cable label shall be affixed.
 - f. MDF/IDF end of speaker/horn shall be labeled on the 66 blocks using an ultra fine black sharpie.
 - g. GPISD shall approve labeling scheme.
3. Labels: Camera: Provide labeling as indicated.
 - a. Labels shall have a white background and black print
 - b. Lettering shall be bold print, preferable ½” in height. Height may be adjusted as necessary to fit actual print within a specified area.

- c. Labeling shall be as recommended by the manufacturer of the product being labeled and/or as specified.
- d. Label shall be affixed on the SMB on the camera end above the ceiling grid.
- f. Matching label shall be affixed on the grid as close to the SMB as possible.
- e. GPISD shall approve labeling scheme.

4. Labels: General

- a. All patch panels will be labeled in a permanent manner with the accurate corresponding locations.
- b. All faceplates will be labeled in a permanent manner with the accurate corresponding connection.
- c. All telecommunications outlets and patch panels shall be labeled Appropriately. Contractor is to verify labeling scheme with Owner prior to installation.
- d. All labeling is to be electronically generated. Only the 66 blocks shall be handwritten labeling is acceptable. All labeling will be electronically generated with a Brother P-Touch or equivalent device.
- e. Classroom cooper drops will begin with "1" at the teacher's station and continue sequentially in a clockwise direction around the room. Wall plates will match the patch panel. Drop number "01" is reserved for the Cisco phone. Drop "11" is reserved for wireless and drop "12" is reserved for the data Projector.

5. Ladder Rack

- a. The ladder rack shall be constructed of 1 ½ inch x 3/8" ASTM A5132 compliant tubular steel black in color.
- b. Ladder rack dimensions shall be 12 inches wide with 9 inch spacing between cable support rungs and permanently welded 5 inch high posts.
- c. Include all manufacturer recommended hardware and accessories for a complete unit included but not limited to wall bracing, splice extension clamps, horizontal tee splice kits, corner support kits, adjustable vertical bend kits, adjustable vertical splice kits, runway support kits designed for ceiling support from all threaded rod, runway drop-out or "waterfall" at equipment racks, runway end caps, etc.
- d. Provide manufacturer recommended wall bracing and termination kits at rack ends.
- e. Approved manufacturers are:
 - i. B-Line/Saunders Model #SB-18-12-FLTBLK
 - ii. Panduit
 - iii. Chatsworth

6. Classroom Enclosures
 - a. Install Owner provided Hubbell RE2 in each classroom.
7. Computer Lab & Library Enclosures
 - a. Install Owner provided Hubbell RE4 in each computer lab & library.
8. Cable bundling hardware
 - a. Provide reusable, cable straps capable of withstanding fastening to wall with screws, or equipped with snap-and-button fasteners. Nylon cable ties are not acceptable.
 - b. Minimum cable strap width shall be 1 inch. Provide as necessary to bundle and support cabling in the equipment rooms, telecommunications rooms, MDF rooms and within the Hubbell enclosures.
 - c. Approved manufacturers:
 1. Panduit
 2. Chatsworth
 3. Tyton
9. Wire Management products
 - a. Provide Wire Management panels above and below all MDF/IDF patch panels.
 1. Panduit: WMPHF2
10. Cabinets/Equipment Enclosures
 - a. GPISD will provide these enclosures; they will be APC NetShelter VX cabinets.
11. Copper and fiber patch cords
 - a. Workstations: Provide 300 10' patch cables. Deliver to Owner.
 1. CommScope: UNC6-XX-XXF (Cat 6)
 - b. MDF/IDF room Fiber (Patch Panel to Network Switch): Provide one fiber patch cord for each fiber termination in the MDF/IDF room. Patch cord shall be factory terminated with an SC connector on one end and an LC connector on the other end. Contractor will install one fiber patch cable per fiber termination to Owner-provided network switch. Contractor is to coordinate selection of these fiber patch cord lengths with the owner to determine the most appropriate length to use within each cabinet.

1. CommScope: RFJ-02ZC29-6F-LCU-XX-SCU
- c. MDF/IDF room copper (Patch Panel to Network Switch): Provide one copper patch cord for each copper termination in the MDF/IDF room. Contractor will install one copper patch cable per drop to Owner-provided network switch. Contractor is to coordinate selection of these copper patch cord lengths with the owner to determine the most appropriate length to use within each cabinet.
 1. CommScope: UNC6-XX-XXF (Cat 6)
- d. Classroom/labs/other areas UTP (Patch Panel to Network Switch): Provide one 3' for each drop. Contractor will install all of these cables, connecting one end of each cable to the patch panel and the other end of each cable to the Owner-provided network switch in each enclosure.
 1. CommScope: UNC6-XX-3F (Cat 6)
- e. Classroom/labs/other areas fiber (Patch Panel to Network Switch): Provide one 3' fiber patch cord for each fiber cable terminated in each Classroom/labs/other area (two each). Patch cord shall be factory terminated with an SC connector on one end and an LC connector on the other. Contractor will install one of these patch cables between the patch panel and network switch, and will provide the other to the Owner for use in supporting the infrastructure after completion.
 1. CommScope: RFJ-02-ZC-16-6F-SCU-XX-LJU
12. Telecommunications Cabling Support: Conduit and outlet boxes are provided by others. Provide cable support as follows:
 - a. Primary pathways (corridors, vertical chases, etc.) plenum rated, adjustable cable support that complies with UL, cUL, NEC, and ANSI/EIA/TIA requirements for structured cabling systems and accommodates up to 425 horizontal UTP cables. Provide Erico CAT425 or approved equal for all primary pathway cable support.
 - b. Secondary pathways (those extending from the primary pathways to the space above the telecommunications outlets) J-hooks with galvanized finish to provide smooth surface and corrosion resistance that complies with UL, cUL, NEC, and ANSI/ETA/TIA requirements for structured cabling systems and accommodates up to 16 horizontal UTP cables. Provide Erico CAT 12 Panduit JP75W-L20 or JP75WP-L20 or approved equal for all secondary pathway cable support. Approved equals are: B-Line Systems, Hilti, and Carbofil EZTray.

13. Grounding: Contractor shall provide a ground bar at the MDF/IDF. Contractor shall provide a #6 AWG stranded copper wire cable between ground bars to the building main service ground point. This ground conductor shall be utilized for grounding termination equipment, equipment rack and cable tray.

X. General Requirements

- A. Selected contractor must be a Certified CommScope Uniprise Installer. All proposals will be subjected to this criterion first. This is a hard certification requirement, and contractor must submit valid PCI Certificate with offer.
- B. Selected contractor must have at least one RCDD on staff to supervise and assist as necessary on this project. Proof of certification must be provided.
- C. Selected contractor should have experience in cabling installation in an education environment.
- D. Selected contractor should provide a minimum of three references with K-12 education, Regional Service Centers or other higher educational institutions.
- E. Previous experience with K-12 school districts is preferred and experience must be verified with a minimum of two K-12 education districts, Regional Service Centers or other higher educational institutions if contractor has not had previous business with GPISD.
- F. Install all cabling as indicated.
- G. Install enclosures in classrooms and other areas as indicated.
- H. Install specified patch panel in the enclosure within the classroom and other indicated locations. Terminate horizontal UTP data cables on the specified patch panel.
- I. Install Owner-furnished network switch in the enclosure and connect to all Tele-communications outlets as indicated by Owner.
- J. Install Owner-furnished network switch in the IDF Room and connect to all telecommunications outlets as indicated by Owner.
- K. Install specified patch panels in the MDF/IDF Room. Terminate horizontal UTP data cables on the specified patch panel.
- L. Provide all patch cords and cables as specified.
- M. Provide 66-blocks in the MDF/IDF Room for speaker/horn/telephone cable terminations as specified. Terminate all horizontal UTP voice cables on 66-blocks. Terminate separately from each other on separate blocks. Coordinate layout of 66-blocks with the Owner prior to installation.
- N. Provide generous service loops on all cables with a minimum distance of 6 inches at or above the telecommunications outlet coiled in ceiling, wall, or raceway, and the MDF/IDF Room terminations. Bundle and lace cables neatly behind the panel. Do not violate bend radius restrictions.
- O. Install telecommunications outlets securely at work locations.
- P. Provide surface raceway on all walls where existing pathway has not been provided and cables cannot be concealed inside the wall cavity. Do not conceal cabling inside of block walls. Install surface raceway "level" straight and securely anchored to walls with screws, bolts, or anchors as appropriate.

- Q. All cable runs are to be fastened in a neat and secure manner using Velcro-type connector. Do not attach to any suspended ceiling fixtures or components.
- R. All cable runs are to be secured to the building at appropriate points in the run with Velcro-type and/or D-ring attachments
- S. Cable runs are to be attached 12" below the deck. Minimum ¼" all-thread shall be used in the classrooms and minimum 3/8" all-thread for all other pathways.
- T. All products must be purchased upon contract approval. Products must be available for GPISD staff to inventory. Products must be kept in a secure location. Product warehousing is the responsibility of the contractor.
- U. Contractor shall remove all excess and trash from all enclosures. Unused enclosure hardware shall be delivered to owner.

Testing

- A. All fiber cabling will be tested with a Microtest CertiFiber or Microtest OmniScanner. Results will be provided in both printed and electronic form, and will be accurate. Testing will be bi-directional.
- B. All copper cabling (data) will be tested with a Microtest PentaScanner+ or Microtest OmniScanner. Results will be provided in both printed and electronic form, and will be accurate.

AutoCAD drawings

- A. GPISD will provide electronic CAD files.
- B. All cable terminations will be designated and labeled properly on this drawing. This includes the physical location of the drop (i.e. specific wall and location). Fiber locations will be represented in red. Data locations will be represented in blue, Speakers shall be in yellow, Horns shall be in green, Cameras shall be in purple, Telephones shall be in orange.
- C. Vendor will provide these drawings in both electronic and printed format. The electronic format is two (2) copies of the AutoCAD file on two separate CD-ROMs. The printed format will consist of three (3) E-size large color plots and three (3) 11x17" color prints.

Location of drops

- A. All DATA drops will be located within two feet (2') of an existing electrical outlet in an existing location.
- B. Locations have been roughly defined on the supplied blueprints.
- C. ANY CHANGES OR MODIFICATIONS TO ANY DROP LOCATIONS MUST BE SUBMITTED IN WRITING TO GRAND PRAIRIE ISD. WRITTEN APPROVAL FROM GPISD IS REQUIRED ON ANY CHANGE, SUBSTITUTION, OR ADDITION TO ANY DROP LOCATION.

Quality Assurance Codes, Standards, Permits, and Symbols

- A. Imposed codes and standards: Applicable provisions of the following codes and standards are hereby imposed on a general basis for the telecommunication work in addition to specific applications specified by individual work sections of these specifications:
- ACIL - American Council of Independent Laboratories
 - ANSI - American National Standards Institute
 - ASTM - American Society for Testing and Materials
 - AWS - American Welding Society
 - FM - Factory Mutual Engineering
 - ES -Federal Specification (General Services Administration)
 - MIL - Military Standardization Documents
 - NEC - National Electrical Code (NFPA No. 70)
 - NEMA - National Electrical Manufacturers Association
 - NFPA - National Fire Protection Association
 - OSHA - Occupational Safety and Health Administration
 - UL - Underwriters' Laboratories
 - EIA/TIA - Electronics Industries Association/Telecommunications Industries Association
 - IEEE - Institute of Electrical and Electronic Engineers
- B. Tests and permits: Demonstrate by tests, at the request of Engineer and Owner, the compliance of the installation with these specifications, the drawings, the NEC, the EIA/TIA, and the accepted standards of good crafting. These tests shall include operations of cables and termination equipment, continuity of the conduit system, and grounding resistance for cables with a metal element. All labor and testing equipment for the performance of these tests shall be furnished by the Contractor.
- C. The Contractor shall pay for all permits required for the execution of this work.
- D. Guarantee: The Contractor shall guarantee the entire telecommunication installation against defects in work and materials for a period of two (2) years after the date of acceptance by the Owner, ordinary wear and tear excepted. Upon written notice from the Owner, the Contractor shall remedy all such defects at the Contractor's own expense and at a time convenient to the Owner.
- E. Inspections: The Contractor shall immediately correct all work that is found unacceptable by the Owner or Engineer. Work shall be considered unacceptable when it is contrary to the drawings and/or specifications and/or the NEC and/or accepted standards of good work.
- F. Noise limitation: Perform all work to assure minimal noise produced by the telecommunication equipment and installation.
- G. Site Cleanup: Upon completion of the work, the Contractor shall remove all debris, tools, machines, and the like pertaining to this work and shall leave the area broom clean & vacuumed. The work, including fixtures, shall be thoroughly cleaned and ready for use by the Owner. The Contractor shall be responsible for maintaining clean and safe conditions in the area of the work.
- H. Weekly Reports: Contractor will provide written weekly status reports. Report

must include current status, problems encountered, check list of classrooms completed – fiber pulls, check list of classrooms completed – copper pulls, materials delivered & list of delays with reason. Contractor is encouraged to add items as needed. Reports will be due by COB each Thursday after work is began. Reports will be typed using MS Word and emailed as specified by GPISD.

General Work Performance

- A. Perform all work in accordance with the latest edition of the NEC, OSHA, EIA/TIA, state, and local codes that apply. All workmanship shall be in accordance with the best practices of the trade.
- B. Cutting through floors and into columns, walls, or partitions made necessary to install this work must be done under the direction of the Client's written approval. All cutting of masonry fireproofing made necessary for the installation of telecommunication work shall be repaired by this Contractor as directed by the Engineer in this document.
- C. Upon completion of work, the entire installation will be inspected to see that the requirements of these specifications have been fully complied with before final payment will be approved.
- D. Provide all additional supplementary support as may be required. All supports shall be by an approved system, such as unistrut. Supports composed of channel iron, conduit, wire, or other unapproved material shall not be acceptable. Prepare all fittings, conduits, boxes, conduits, and supports exposed for painting by removing all oil, grease, and dirt. Employ the necessary precautionary methods to prevent scratching or defacing of all telecommunication apparatus and devices.
- E. Exposed conduit installed after a room has been painted shall be repainted to match room finish by this Contractor.
- F. No conduits, cables, boxes, devices, or the like shall be attached to wires that support ceiling suspension system.
- G. Install conduit expansion fittings (O.Z. Gedney or approved equal) at all conduits passing through building expansion joints.
- H. Install cable barriers with sealing block assemblies, such as Crouse-Hinds, Nelson, or 3M, at all cable tray penetrations of fire-rated walls or floors.
- I. Openings around conduits or in sleeves for conduits penetrating fire-rated floor slabs, walls, partitions, ceilings or smoke partitions, shall be sealed at both sides of the penetration.
- J. Insulation shall not extend through sleeves. Pack openings with calcium silicate block, Dow Corning 3-6548 RTV Silicone Foam, 3M CP25 Caulk, or 303 Putty Fire Barrier System, or material having the same fire-rating as the floor or wall penetrated. Fiberglass is not acceptable.
- K. This Contractor shall rough in and then completely connect up after equipment installation by others all equipment as detailed on the drawings and specified herein. Approximate locations for the various items of equipment are noted on the drawings. It shall be the responsibility of the Contractor to verify exact locations of such termination equipment units, as well as to verify the equipment manufacturer's required termination methods to best suit requirements for each

equipment item. Compliance with such requirements of the equipment manufacturer shall be a part of the contract and shall be met without additional expense to the Owner.

- L. The Contractor shall use all possible care to avoid soiling the floors and walls. No cutting, threading, or bending of conduit will be permitted in building areas where finished floors have been installed, unless the floors are covered or protected. If floors are damaged, they shall be refinished to the satisfaction of the Engineer.
- M. A 20 year manufacturer's warranty shall be included for the cabling plant.
- N. The Contractor shall provide pricing for additional Cat 5e and Cat 6 data drops valid for a period of 2 years from completion date. Price must include all labor, travel time and materials. Price may include a "cannot exceed length."
- O. Care will be taken in existing ceiling and grid. Any damage to grid and/or tiles is the responsibility of the Contractor.
- P. Contractor shall follow construction site regulations established by the onsite General Contractor, including access times, apparel, equipment, smoking, etc.