

DISTRICT DIRECTORY SERVICE UPGRADES

Technology Request for Bid Proposal



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None issued	for this project.

END OF SECTION

SECTION 00010
LIST OF DRAWINGS

File/Name Description

NOTE:

Applicable building diagrams and sketches are included as appendices herein.

END OF SECTION

SECTION 00011
INVITATION TO BID

PART 1 - GENERAL

1.01 WORK INCLUDED: DISTRICT TECHNOLOGY UPGRADES

- A. Kentwood Public Schools (Owner) is seeking bid proposals for new data center equipment and integration. Proposed systems shall be configured and installed to service Owner's classrooms and administrative spaces across multiple instructional and support facilities, and as described herein.
- B. Project: DISTRICT DIRECTORY SERVICE UPGRADES
- C. Owner: Kentwood Public Schools
5820 Eastern Avenue SE
Kentwood, Michigan 49508
- D. Designer: Communications by Design, Inc.
- E. Sites of Work:
 - 1. Freshman Campus
6170 Valley Lane
Kentwood, Michigan 49508

1.02 GENERAL DESCRIPTION OF PROJECT SEQUENCE

- A. Sequences and dates specified herein are for information only and indicate the plan and intent of the Owner. Actual dates shall be established based on final award of project.
- B. Sequence of operations shall be established by the Contractor within the guidelines established by the Owner as required to meet schedules.
- C. Schedule
 - 1. Request for Bid Proposal Distributed: March 01, 2016
 - 2. Pre-bid Meeting: March 14, 2016 at 3:00 PM
 - 3. Intent to Bid Forms Due: March 15, 2016 by 5:00 PM
 - 4. Question and Clarification Deadline: March 16, 2016 by 5:00 PM
 - 5. Public Bid Proposal Opening: March 28, 2016 at 3:00 PM

1.03 TYPES OF BID PROPOSALS

- A. Bids shall be submitted in total and with required detail for each item bid and as is required herein, and include all portions of the work identified for the individual bid package as specified herein. Bid proposals shall be made on unaltered forms as included herein. Bidder shall fill in all blank spaces and the forms shall be signed by a legal officer or agent authorized to bind the bidder to a contract.

1.04 PRE-BID CONFERENCE

- A. A pre-bid conference will be held. A discussion of the project and review of bid documents will be followed by a site review and an opportunity to ask questions. Attendance is required for all contractors interested in bidding on any components or portions of this project. Attendance at the pre-bid conference will be a factor considered during evaluation of bids.
- B. Time: March 14, 2016 at 3:00 PM
- C. Location: Kentwood Public Schools
Freshman Campus (Enter through Door D)
6170 Valley Lane
Kentwood, Michigan 49508
- D. Any drawings and/or diagrams identified in the table of contents herein will be distributed and reviewed at this conference.

1.05 TIME AND PLACE OF BID RECEPTION

- A. Physically sealed proposals for the base bid work will be received and read aloud at a public opening. Bids arriving after the appointed time as determined by the Owner's representative conducting the public opening, shall be returned unopened. Bids will be accepted beginning forty-eight (48) hours prior to the appointed opening time provided they are in sealed packages and addressed as specified herein.
- B. Time: March 28, 2016 at 3:00 PM
- C. Location: Kentwood Public Schools
Administration Building
5820 Eastern Avenue SE
Kentwood, Michigan 49508
- D. Faxed or electronically delivered bids will not be accepted.

1.01 EXAMINATION AND PROCUREMENT OF DOCUMENTS

A. Specifications and Drawings may be obtained from the Technology Designer. Contractors may obtain copies by documented request to Communications by Design, Attn: Carl VanderZee. Requests may be made by:

1. Writing - PO Box 499, Ada, Michigan 49301
2. Email – rszilagy@cbdconsulting.com
3. Fax - 616-588-6251

1.02 OWNER’S RIGHT TO REJECT PROPOSALS

- A. The Owner reserves the right to reject any and/or all proposals. The Owner reserves the right to accept a bid, or portion thereof by issuance of a valid purchase order within ninety (90) calendar days following the bid opening. No bids may be withdrawn during this time without the specific approval of the Owner.
- B. Withdrawal of any Bid Proposal after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

1.03 DEFINITIONS

- A. “Owner” is intended to mean Kentwood Public Schools, a Michigan Constitutional Body Corporate.
- B. For purposes of this project, the terms “Architect”, “Engineer” and “Designer” are used synonymously to refer to Communications by Design, a Michigan Corporation.
- C. The term “Bidder” refers to any organization properly and accurately submitting a complete “Intent to Bid Form” prior to the required time specified herein and subsequently properly submitting completed set of bid documents as specified herein.
- D. The term “Contractor” herein is a reference to the firm(s) eventually selected by the Owner to provide the intended system(s), or any portion thereof, and fulfill the terms of the contract.
- E. The term Contract is a reference to the collective set of documents, drawings, diagrams, Owner’s Purchase Order, Addenda and all other materials as provided for herein defining arrangement between Owner and Contractor.
- F. The term Addenda (or Addendum) are that portion of the Contract consisting of modifications, amendments, deletions or substitutions to the contract documents issued prior to the execution of the Contract.

END OF SECTION

SECTION 00300
BID PROPOSAL FORMS

Intent to Bid Form

Complete and submit the following form if you intend to submit a Bid Proposal for this project. Unaltered and completed forms must be received on or before 5:00 pm ESDT on March 15, 2016. Bidders returning a completed "Intent to Bid Form" will be notified of required addenda for Bid #2410.

Company Information

Name: _____

Address Line1: _____

Address Line2: _____

City, State and Zip Code _____

Primary Contact

Information

Name: _____

Phone No.: _____

Fax. No.: _____

E-Mail Address: _____

Portions of the bid for which you will be responding:

- Section 17270 – Data Center Equipment
- Section 17271 – Directory Installation and Integration

Submit unaltered and completed form to:

Rebecca L. Szilagy
Communications by Design, Inc.
616-588-6251 (Fax)
rszilagy@cbdconsulting.com

SEALED BID LABEL

Separate, or fold over, the label on the line below, and affix to the exterior of sealed container so information is clearly visible for Bid Proposal Submission. Insure label is attached in a manner to prevent accidental removal or defacement. Label shall serve as sole identification for sealed bid at submission.

BID TO: Kentwood Public Schools
Attention: Mr. Todd Bell
5820 Eastern Avenue SE
Kentwood, Michigan 49508

BID FROM: _____

PROJECT: DISTRICT DIRECTORY SERVICE UPGRADES
TECHNOLOGY BID PROPOSAL #2410

INCLUDING Addendum No. _____ Dated _____
ADDENDA: Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

DUE: 3:00 PM on March 28, 2016

BID PROPOSAL FORM

BID TO: Kentwood Public Schools
Attention: Mr. Todd Bell
5820 Eastern Avenue SE
Kentwood, Michigan 49508

BID FROM: _____

PROJECT: DISTRICT DIRECTORY SERVICE UPGRADES
TECHNOLOGY BID PROPOSAL #2410

The undersigned, having familiarized themselves with all local conditions affecting the cost of work, and having examined the site and all applicable Bidding Documents herein, and herein referenced, including, but not limited to, all addenda issued thereto, hereby propose to furnish all labor, material, equipment, applicable taxes and services required for proper completion of each of the following categories of this project for the sum of:

Bid Category _____ Title _____
_____ Dollars (\$ _____).

Said amount written above constituting the Base Bid

Bid Category _____ Title _____
_____ Dollars (\$ _____).

Said amount written above constituting the Base Bid

TAXES:

Bid sum includes all applicable taxes.

ALLOWANCES:

Base bid includes all applicable allowance cost(s) as set forth herein.

COST OF BONDS:

Bid sum includes cost of furnishing a Performance Bond and Labor and Material Payment Bond, each in the amount of one hundred percent (100%) of the bid.

ACKNOWLEDGEMENT OF ADDENDA:

The following addenda have been received, are hereby acknowledged, and their execution is included in both base bid and alternate bids herein.

Addendum No. _____ Dated _____ Addendum No. _____ Dated _____
Addendum No. _____ Dated _____ Addendum No. _____ Dated _____

ALTERNATES:

Based bid amount may be increased or decreased in accordance with each of the following alternate bids as may be selected, following procedures stated herein. Voluntary Alternates shown below are identified and described in detail on appropriate attachment(s) as referenced herein.

Voluntary Alternate A _____

Voluntary Alternate B _____

Voluntary Alternate C _____

Voluntary Alternate D _____

Voluntary Alternate E _____

PRINCIPAL SUBCONTRACTORS

As required herein, the following Subcontractors are proposed to be used for this project:

Legal Name: _____ Work Proposed _____

Legal Name: _____ Work Proposed _____

BID SECURITY:

Accompanying this Bid, as required herein, is a bid security in the form of Certified Check/Cashier’s Check/Bidder’s Bond in the amount of:

_____ Dollars (\$ _____), payable to the Owner, which it is agreed, shall be retained as liquidated damages, not as a penalty, by the Owner, if the undersigned fails to execute the Contract in conformity with the form of Contract incorporated and referenced herein and fails to furnish specified bonds within ten (10) days after date of issuance of a Letter of Intent to the undersigned.

If awarded the Contract, the undersigned agrees to commence work within ten (10) calendar days after date of issuance of a Purchase Order, which shall be considered as the notice to proceed, and agrees to complete the work in accordance with the schedule herein.

FAMILIAL DISCLOSURE:

Accompanying this Bid, as required herein, is a legally executed and notarized Michigan Familial Disclosure Statement.

EXCEPTIONS:

Bidder takes no exception to terms, conditions, specifications and/or any other requirements herein unless expressly noted, and specifically identified as provided for herein on unaltered Contract Exception form accompanying this Bid.

SIGNATORY AUTHORITY:

The undersigned certifies they are an authorized agent of the bidding entity, and legally able to bind the bidding entity to the terms, conditions and responsibilities of this, and all referenced bid documents. Furthermore, the undersigned acknowledges an understanding that non-compliance of this authority or any other bidding requirements may result in forfeiture of bid security and/or dismissal of consideration of bid submitted.

AGREEMENT:

The undersigned agree(s) to provide the post-bid information required within ten (10) days after notification of a Letter of Intent and to execute an agreement for work covered by this Bid Proposal on the Owner’s standard Purchase Order for which terms and conditions are expanded to include all Bidding Documents and subsequent addenda issued thereto.

In submitting this bid, it is understood that the Owner reserves the right to reject any or all bids. It is further agreed that this bid is binding for a period of Ninety (90) days from the opening thereof.

Respectfully submitted,

Date: _____

Firm Name: _____

By: _____

Signed: _____

Title: _____

Official Address: _____

Telephone Number: _____

Fax Number: _____

Primary Contact Email Address: _____

(If Corporation, affix Seal)

Michigan Familial Relationship Disclosure Statement

In accordance with Section 1267 of Michigan Revised School Code this sworn and notarized statement of an authorized representative, discloses any familial relationship between the owner and/or any employee of the Bidder, and any member of the project Owner’s governing Board(s) or Superintendent(s).

If any conflict of interest is discovered subsequent to submission of bid, written disclosure shall be submitted to the project Owner within seven (7) days of discovery. The project Owner reserves the right to immediately terminate any contract with Bidder upon notification of a conflict of interest. Upon such termination, the project Owner shall compensate Bidder only for the value of any goods or services provided to the Owner prior to such termination as determined by Designer.

(Check only one Box Below)

It is hereby acknowledged and certified by Bidder that no familial relationship exists between the owner or any employee of the Bidder and any member of the project Owner’s governing Board(s) or Superintendent(s).

A familial relationship exists between the owner or an employee of the Bidder and a member of the project Owner’s governing Board(s) or Superintendent(s). The person(s) and the relationship(s) are as follows:

Bidder

Board or Superintendent

Bidder Authorized Representative:

Bidder: _____

Representative’s Signature: _____

Print or Type Name: _____

Representative’s Title: _____

Subscribed and sworn this _____ day of _____, 2011.

In the County of _____ State of _____

By _____

Notary Public Signature

Seal or Stamp:

My commission expires on: _____

REFERENCES

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____

Date of completion: _____

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____

Date of completion: _____

Customer name: _____
Address: _____
City/State/Zip: _____
Contact name: _____
Contact title: _____
Phone: _____
E-mail: _____
Scope of project: _____

Date of completion: _____

CONTRACT EXCEPTIONS

Check one Box

Bidder takes no exception to, and agrees to comply with all sections, terms, conditions and/or requirements of the Contract Documents.

Bidder proposes the following exceptions to the Contract Documents:

<i>Paragraph Number</i>	<i>Explanation</i>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTE:
Exception(s) to any bid sections, terms, conditions and/or requirements deemed excessive for any reason by the Owner and/or Designer may result in disqualification of Bid.

END OF SECTION

END OF SECTION

DIVISION 1 – GENERAL AND CONTRACT REQUIREMENTS

01000.0 NOTICE

01000.1 Division 0 – General Bidding Information is part of this division.

01000.2 This division provides detail and process definition for the General and Contract Requirements of the project.

01000.3 References in this division to industry wide standards or nationally recognized testing agencies shall denote the latest edition of such publications or standards unless otherwise indicated.

SECTION 01010
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 OWNERSHIP

- A. Bidders prepare and provide bids without any cost to the Owner and/or Designer. Once opened, bids become the sole property of the Owner. Bidders have no claim to, or ownership of bids opened. Bids become subject to all legal statutes including, if applicable, United States and Michigan Freedom of Information Acts and related laws.

1.02 COMPLIANCE

- A. This Request for Bids (RFB) establishes the primary system(s) design configuration. The Bidder's proposal shall include all services, supplies, components and equipment required to provide a complete turnkey system(s) which meets or exceeds all RFB specifications for each given bid line item being proposed.
- B. Owner shall consider combinations of portions of bids from various bidders for completion of the project. If portions of separate bids are deemed compatible and compliant with the intent of the project, and a combination of partial bids is deemed to be in the Owner's best interest, and the Owner reasonably expects willing and compliant bidders will cooperate with others for the benefit of the Owner during construction of the system, the Owner reserves the right to award portions of the project to multiple bidders which will cooperate to complete the work.
- C. By their response, Bidders agree to comply with all sections, terms, conditions and/or requirements of the contract documents except as expressly noted, and specifically identified by paragraph number on the unaltered Contract Exceptions Bid Form. Exceptions to any bid sections, terms, conditions and/or requirements deemed excessive by the Owner and/or Designer may disqualify Bid.
- D. In compliance with the Freedom of Information Act (FOIA), the Owner shall make bid documents available for public review after issuance of purchase order to the successful bidder/s.
- E. In connection with the execution of this Contract, Contractor and any Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin.

- F. Negligence in preparation, improper preparation, errors in, or omissions from Bids shall not relieve Bidder from fulfillment of any and all obligations and requirements of the Contract Documents.
- G. All Bid Proposal documents and worksheets must be completed in detail and submitted together on time.
- H. All documents constituting the entire present agreement shall be construed in accordance with and governed by the laws of the State of Michigan.
- I. Designer shall have authority for interpretation of Contract Documents. In the event terms, provisions or any other portion of the Contract Documents is in dispute, the Designer shall have full and final authority to interpret the Contract Documents, and such interpretation shall be final and binding.
- J. In the event of a conflict between any terms or conditions in any of the documents comprising the entire present Agreement, the terms and conditions set forth in this document shall take precedence.

1.03 NOTICE AND RESPONSE

- A. Upon notification of Bidder being considered as a finalist, the Bidder shall provide to the Owner and Designer, within 48 hours, a current “Dunn and Bradstreet Supplier Evaluation Report” and other documentation as may be required of finalists herein and as requested by Owner and/or Designer.
- B. Bidder shall provide timely response to all requests from Designer and/or Owner regarding clarification and/or elaboration concerning, but not limited to, its Bid Proposal as may be deemed relevant by the Owner and/or Designer.

1.04 PROTECTION AND SAFETY

- A. Contractor shall continuously maintain adequate protection of all Work from damage and shall protect the Owner’s property from injury or loss arising in connection with the execution of the Contract. Contractor shall make good any such damage, injury or loss, except such as may be directly caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property as required by law, by the Contract Documents, or as otherwise required, to cause no damage to them during the execution of the Contract. This requirement shall also apply to structures above and below ground as conditions of the site require.
- B. Contractor shall be solely responsible for, and have control over means, methods, techniques, sequences and procedures for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the contract. Contractor shall take all necessary precautions for the safety of employees and visitors on the site of the Project and shall

comply with applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of workers and the community.

- C. Contractor shall vigorously defend any and all suits that may be brought against the Owner by any person and/or entity, whether in the employ of the Contractor or not, for damage to property, and/or injury or death to persons alleged or claimed to have been caused by or through the performance of work.

1.05 DRAWINGS DIAGRAMS AND ILLUSTRATIONS

- A. Drawings, Sketches, Diagrams and Illustrations are diagrammatic in nature and indicate general arrangement and nature of systems and work included.
- B. Floor plan drawings and sketches are provided to assist the contractor in preparing documentation and reports as required herein.

PART 2 - MATERIALS

2.01 VOLUNTARY ALTERNATES AND SUBSTITUTION OF SPECIFIED PRODUCTS

- A. This RFB describes a particular implementation. All Bid Proposals must provide pricing on the “base bid” as described herein. Voluntary alternatives providing comparable functionality with significant cost reduction and/or performance enhancement may be proposed. Voluntary alternatives are encouraged, but must be identified as “Voluntary Alternates” and detailed on unaltered Bid Proposal Forms contained herein. Voluntary Alternates may be further detailed and/or explained in attachments to the unaltered Bid Proposal Forms contained herein. Exceptions to the RFB specifications must be clearly noted and explained for each Voluntary Alternate proposed.
- B. No substitutions of specified products may be made without specific prior authorization by Designer and Owner. Individual bid divisions herein contain particular information related to acceptable manufacturer and product requirements.
- C. Trade-in, equipment/license exchanges or other return allowances may be provided as a voluntary alternate. Trade-in, exchange or other return equipment allowances shall not be included in base bid amount.

PART 3 - EXECUTION

3.01 EXAMINATION OF DOCUMENTS AND SITE

- A. Bidders shall carefully examine the Contract Documents and the construction site to obtain first-hand knowledge of existing conditions and requirements. No plea of ignorance of conditions that exist, or any other relevant matter concerning work to be performed in the execution of work will be accepted as justification for failure to fulfill every detail of all requirements as described herein.

3.02 QUESTIONS, INTERPRETATIONS AND ADDENDA

- A. Any bidder finding discrepancies between Drawings, Specifications and/or Bid Documents, or be in doubt as to the exact meaning of any provision or detail shall notify the Designer at once. The Designer may then, at their option, issue Addenda clarifying same. The Designer is not responsible for oral instructions, or Bidder's/Contractor's misinterpretations of Drawings, Specifications and/or Bid Documents.
- B. The Designer reserves the right to issue Addenda at any time up to thirty-six (36) hours prior to the scheduled bid opening. All such addenda shall become, upon issuance, an inseparable part of the Specification/Contract Documents. Each bidder shall incorporate within their bid proposal all costs for items listed in any/all Addenda, and shall acknowledge receipt and identifying number of each Addendum on the Bid Proposal Form and on the outside of the sealed bid container.
- C. Addenda will be forwarded to each bidder who has received a copy of the Bidding Documents and has submitted "Intent to Bid Form".

3.03 INSURANCE

- A. Contractor shall provide, prior to beginning any work at the sites, certificate of insurance for delivery to Owner indicating all required insurance coverage is in force.
 - 1. Workers' Compensation and Employer's Liability Insurance
 - a. Coverage A – Statutory
 - b. Coverage B - \$1,000,000 Per Accident
 - 2. Broad Form Comprehensive General Liability Insurance (including – Premises, Elevators, Contractor's Protective Liability, Contractual, Products & Completed Operations – including Broad Form Extensions).
 - a. Each Occurrence - \$1,000,000
 - b. General Aggregate - \$2,000,000
 - c. Products & Completed Operation Aggregate - \$2,000,000

- d. Personal Injury & Advertising Injury - \$1,000,000
 - e. Fine Legal - \$50,000
 - 3. Sub-contractors Operations, Products – Completed Operations and Contractual Liabilities, plus such excess coverage as may be appropriate for the limits listed.
 - 4. Comprehensive Automobile Liability Insurance (owned, hired, and non-owned automobiles).
 - a. Bodily - \$1,000,000 each Person and \$1,000,000 each Occurrence
 - b. Property Damage - \$1,000,000
 - 5. Furnish Owner with Contingent Liability Insurance Policy with coverage and liability limits the same as for Public Liability Insurance specified herein. Designate on policy as assured, only the Owner.
 - 6. Furnish Owner with Contingent Property Damage Insurance Policy with coverage and liability limits the same as for Property Damage specified herein. Designate on policy as assured, only the Owner.
 - 7. Policies shall include notification clause requiring ninety (90) days written notice to Owner in the event of policy cancellation, expiration, non-renewal, coverage reduction or other material change.
 - 8. Contractor shall not commence work under the Contract until after all insurance required herein as been obtained and certificates for such are approved by Owner.
- B. All such bonds and/or insurance shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.
- 1. Insurance certificate(s) shall be signed by insurance agent licensed in the state of Michigan or a representative of the insurance company.
- C. Contractor agrees to indemnify and hold harmless the Owner and Designer, including their agents and employees, from and against all claims, damages, losses and expenses, including, but not limited to, attorney fees arising out of, or resulting from the performance of the work.

3.04 MODIFICATION AND WITHDRAWAL

- A. Bid Proposals may be withdrawn and/or changed any time prior to the bid opening. Bid Proposal may not be withdrawn or changed after the bid opening, and shall be deemed a firm offer continuing for ninety (90) calendar

days. Bid Proposals received after the time and date for the public opening will be returned unopened.

- B. Withdrawal of any Bid Proposal after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

3.05 CODES, ORDINANCES, REGULATIONS AND RELATED

- A. All labor and materials shall be furnished and installed in strict accordance with the latest applicable codes, ordinances and regulations of any governing body having jurisdiction over this project.
- B. In the event the quality of labor and materials required by the Drawings and Specifications herein exceeds requirements of current applicable codes, ordinances and regulations, the Drawings and Specifications shall take precedence.
- C. In the event the quality of labor and materials required by current applicable codes, ordinances and regulations having jurisdiction over this project exceeds that of the Drawings and Specifications herein, the applicable codes, ordinances and regulations shall take precedence.
- D. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any authority having jurisdiction, which bears on the performance of its work. This compliance includes, but is not limited to, the Michigan School Safety Initiative (PA129, PA130, PA131 and PA138) if applicable to work being performed.
- E. The Contractor shall pay for all licenses, permits, taxes, and fees required for this project; and shall comply with all federal, state, local and Owner's codes, laws, ordinances, regulations and other requirements applicable to the work specified at no additional cost to the District. Contractor shall submit copies of all approved certificates and approvals to the Owner upon receipt. All such licenses, permits, taxes and fees shall be included in base bid.

3.06 SUB-CONTRACTOR AND MATERIAL SUPPLIER

- A. The successful Bidder shall submit to the Owner and Designer a complete list of all sub-contractors and all material suppliers proposed to engage on the work. Sub-contracts shall not be awarded until after they have been approved by the Designer and Owner.
- B. Finalist bidders may be required to submit additional details related to sub-contractors and suppliers within forty-eight (48) hours after the bid opening.
- C. Names of any principal sub-contractors must be listed on the Bid Proposal Form.

- D. All contracts made by the successful Bidder with Subcontractors shall be covered by the terms and conditions herein. The successful Bidder shall see to it that Subcontractors are fully informed in regard to these terms and conditions, and shall bind all subcontractors to the same terms and conditions. Failure to do so will absolve the Owner from any liability for additional cost due to subcontractor claims for additional cost, time or any claim(s) for additional cost by subcontractor(s).

3.07 BID PROPOSAL RESPONSE FORMAT

- A. Bidder shall provide two (2) complete Bid Proposal copies in each of two (2) formats as described herein.
1. Hard copy format responses shall be in a bound tabulated format. Each response shall have tab indicators for each section.
 2. Electronic copy format responses shall be submitted on a USB drive, readable by a standard Microsoft Windows workstation. USB drive shall contain separate folders to organize response documentation as described herein. Files submitted on USB drive shall be *Adobe Acrobat* "PDF" format.
- B. All Bid Proposal Response formats shall be clearly externally marked to include, but not be limited to:
1. Bidder identification.
 2. Project Owner identification.
 3. Project name.
 4. Bid submission date.
- C. Bid Proposal Responses shall include an index containing copies/PDF of a complete index of documents comprising Bid Proposal Response. Responses shall include, but not be limited to the following tabbed/folder sections:
1. Section 1 – Forms, which shall contain copies/PDF files of all required and completed bid forms.
 - a. BID PROPOSAL FORM
 - b. Michigan Familial Relationship Disclosure Statement
 - c. REFERENCES
 - d. CONTRACT EXCEPTIONS
 - e. SCHEDULE OF VALUES

2. Section 2 – Overview, which shall contain copies/PDF files of cover letter and/or executive overview.
3. Section 3 – Submittals, which shall contain copies/PDF files of all required and voluntary submittals.
4. Section 4 – Appendices, which shall contain copies/PDF files of other reference materials Bidder wishes to, or is required to submit.

3.08 AWARD OF CONTRACT

- A. The material proposed to be used for the completion of work, and the competency, solvency and responsibility of bidders will receive due consideration before award of contract. In the reception of proposals for this work, the Owner incurs no obligation to accept the lowest, or any bid proposal submitted. The right to accept or reject any and all bids is reserved by the Owner. The Owner reserves the right to require testimonial, accounting or legal documents pertaining to the solvency of a Contractor, or any other decision factor the Owner deems appropriate, prior to award of contract.
- B. Owner reserves the right to, at its sole discretion; require potential contractors to clarify any aspect of their bid proposal. Following potential clarification, Owner may seek a “Best and Final Offer” (BAFO) from a number of potential contractors. Owner intends to restrict any potential BAFO process to specific points arising from bids submitted and clarifications obtained within this particular bid process. As such, major revisions of any bid proposal are not expected or acceptable as part of any potential BAFO process. Any BAFO related requests of, and subsequent response from, bidders shall become an inseparable part of the bid and contract documents.
- C. Issuance of a Purchase Order by Owner in response to a valid bid shall be a Notice to Proceed, and shall become part of, but not limited to, all terms, conditions and requirements herein. Notice to Proceed shall have the full effect of contract award, and shall make all terms, conditions, requirements and responsibilities of Bidder binding upon issuance. Notice to Proceed, once issued, shall become an inseparable part of the contract documents herein, and constitute both Bidder and Owner’s acceptance of contract.

3.09 TIME, SCHEDULES, PROJECT MANAGEMENT, MEETINGS AND PLANS

- A. Time is of the essence on this project. Award of contracts for this project will be contingent on the bidder’s agreement to complete the work on or before the contract completion date stated herein.
- B. All Contractors will commence work in such a manner and at such a time as to expeditiously interface with the work of other Contractors, and will pursue the project diligently to completion. All Contractors will work in a cooperative manner with other Contractors.

- C. Contractor shall appoint an overall Project Manager acceptable to Owner, with skills and experience deemed appropriate by the Owner for the scope and size of the project. Project Manager shall be responsible for the scheduling of all Contractor resources and attending all project meetings. Upon notification of Bidder being considered a finalist, the Bidder shall submit professional resume of proposed Project Manager within forty-eight (48) hours.
1. Project meetings shall be conducted at Owner's selected and identified location weekly and at Owner's and/or Designer's discretion.
 2. Within five (5) days of Notice to Proceed (issuance of a Purchase Order by the Owner), Contractor's Project Manager shall provide to the Owner a critical flow path in the form of a "Gantt Chart" (or equivalent) indicating the proposed sequence of events and approximate beginning and completion dates in accordance with, compliance to, and coordinated with requirements herein.
 3. Changes of the Project Manager during the project shall not be acceptable without prior written approval from the Owner.
 4. It is the responsibility of the Contractor's Project Manager to schedule work, work out issues, ensure that all required products and services are delivered according to schedule and attend to any other matters required by the Owner in the interest of professional and timely completion of the project.
 5. The appointed Project Manager, or a designee acceptable to the Owner, shall be in attendance of all project meetings throughout the term of the project. Failure to do so may be considered a material breach of contract.
 6. After a ten (10) business day notice, the District reserves the right to request a new Project Manager, when it appears that, in the Owner's sole discretion, the Project Manager is not fulfilling the full responsibilities of the position. Failure by Contractor to provide adequate Project Manager meeting requirements of the Owner, may result in Contract termination.

3.10 CHANGES IN THE WORK

- A. No changes in work with the effect of either increasing or decreasing in the project value shall be made without specific and prior authorization by the Owner and Designer.
- B. Owner, without invalidating the contract and without notice to any surety, may at any time order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be authorized by a written Change Order from Owner. Upon receipt of such an order Contractor shall promptly proceed with the work

involved. All such work shall be executed under the conditions of the original Contract.

- C. When so directed, Contractor shall promptly submit an itemized estimate and a proposal or unit price for performing or deleting such extra or changed work as may be contemplated. Any extensions or reductions of the contract time associated with extra or changed work shall be identified at the time Contractor submits such proposal.
- D. At the Owner's discretion, adjustments in the Contract Sum shall be determined by one or more of the following methods:
 - 1. By mutual acceptance of a lump sum proposal, including overhead and profit, itemized and supported by sufficient substantiating data to permit evaluation.
 - 2. By unit prices stated in the Contract.
 - 3. By unit prices mutually agreed upon.

3.11 PAYMENT REQUESTS AND PAYMENTS

- A. Contractor's invoices shall be submitted monthly in correlation with the Project Schedule indicating percentage of work completed.
- B. All contract and change order invoices shall be sent directly to Designer.
- C. A 10% retainage shall be held back on all payment requests, including, but not limited to hardware, software, change orders and services, until final completion and close out of the project.
- D. Contractors are required to submit all invoices on approved AIA Payment Request Forms or in other formats previously approved by Owner and Designer. Each AIA Payment Request Form shall be accompanied by a properly completed, executed and notarized Waiver of Lien which shall be in a format and contain verbiage approved by Owner.
- E. The Designer and Owner shall process payment requests on a monthly schedule and in accordance with their respective established processes and procedures. Payments will be made by the Owner based only on AIA Request Forms having been previously certified, audited and approved by Designer and accompanied by acceptable Waiver of Lien.

END OF SECTION

SECTION 01710
CONTRACT CLOSE OUT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide an orderly and efficient transfer of the completed work to Owner.
- B. Details affecting work of this Section includes, but is not limited to all other Sections herein and all related Contract Documents.
- C. Activities relative to Contract close-out are described in, but not limited to, this and other Sections of this document.

1.02 SUBSTANTIAL COMPLETION

- A. "Substantial Completion" shall be defined as:
 - 1. All responsibilities of Contractor for all provisions and requirements of all divisions and sections of complete Contract herein, and as amended, are properly and fully completed or properly, accurately and acceptably provisioned for.
 - 2. All systems, equipment, facilities, services, programming and/or components required by all divisions and sections of complete Contract are fully operational, acceptable and useful to the Owner for their intended purposes.
- B. Prior to requesting inspection by Designer to certify Substantial Completion, Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements and is ready for such inspection.

PART 2 - MATERIALS

2.01 NOT USED FOR THIS SECTION

PART 3 - EXECUTION

3.01 PROCEDURES

- A. Contractor shall submit a written request to Designer indicating they have achieved Substantial Completion of Work.
- B. Within a reasonable time after receipt of the request, Designer will inspect Work to determine status of completion.
- C. Should Designer determine the Work is not substantially complete:

1. Designer promptly will so notify Contractor, in writing giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
 2. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-inspection.
 3. Designer will re-inspect the Work.
 4. Excessive re-inspections of Work may result in fees being assessed Contractor.
- D. Should Designer concur the Work is substantially complete:
1. Designer will prepare a letter of Substantial Completion.
 2. Designer will submit the letter to Owner and Contractor.
 3. Contract shall be deemed “Closed Out” for retainage purposes.
 4. Final Acceptance of the system shall be deemed complete.

END OF SECTION

SECTION 17270
DATA CENTER EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to new data center based Servers and Storage Area Network equipment and replacements to existing core computer equipment intended to be used for instructional and administrative applications. Server hardware is intended to be used for physical and virtual server deployment for centralized resources.
 - 1. Systems shall be comprised of interoperable components including, but not limited to Central Processing Units (CPUs), Operating Systems, displays, memory, keyboards, connecting cables, optical and magnetic disk drives/storage systems and patch and connector cords integrated into common working systems.
 - 2. Equipment is intended to provide virtual functionality replacing multiple virtual and a limited number of physical Novell, Microsoft and Unix based devices and systems.
- B. Contractors shall propose Systems and/or components to be deployed using standard procedures and technology components and as specified herein. The system components are intended to be installed and connected to the owner's physical infrastructure by others and as specified herein.
- C. The Contractor shall supply, configure, test, document, train Owner representatives and warrant a fully operational and compliant system and/or component connection to the system complete and with full functionality as specified herein.
- D. Contractor shall coordinate their testing and delivery with other contractors, Designer and the Owner as is appropriate.
 - 1. Contractor shall deliver components as specified to individual building staging location/room inside as identified and coordinated by owner. Delivery to the individual building locations for Owner unloading will not be accepted.
 - a. Loading dock facilities, pallet lift equipment, or related material handling equipment/facilities may not be available at site of work.
 - 2. Delivery shall be coordinated with Owner, Designer and others based on specific release schedule of materials on a building basis and as directed, required and published by Designer and Owner.

- a. Complete shipment of all materials at one time may not be accepted.
- b. Delivery of equipment prior to the required, published and formally agreed upon release date will not be accepted.

1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure for a period of three (3) years. Any replacement, upgrade or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.
- B. Manufacturer's warranty and/or extended warranty shall be provided for all components of the system.
 1. Any documents and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.
 2. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended Warranty as may be applicable from the manufacturer prior to project closeout.
- C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.
- D. Contractor shall provide the following response times for all malfunctioning equipment:
 1. Four (4) hours or less for matters that render the system unable to maintain normal functionality. Replacement parts for any item determined to be functioning below full design capacity shall be replaced promptly. Replacement components shall be shipped to Owner in order to arrive on the next business day. Replacement components shall be shipped in advance of Owner return of non-functional components (Advance Replacement).
 2. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- E. Bidder shall provide current annual maintenance contract pricing for recommended maintenance programs for all equipment following the specified and included five (5) year period as a Voluntary Alternate. This information will be considered by Owner and Designer as part of the bid evaluation process.

- F. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.

1.02 SUBMITTALS

- A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.
- B. Contractor shall provide current published US List Price schedule(s) for complete line of materials of manufacturer(s) proposed for this contract including all items in product families of equipment proposed.
- C. Shop drawings, data sheets and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.
 - 1. Shop drawings, data sheets and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.
 - 2. No work constituting final configuration, shipment or installation shall be commenced until after approval of shop drawings, data sheets and diagrams by Owner and Designer.
- D. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.
- E. Equipment or material installed for this project that do not have an approved submittal associated with it, will be removed and replaced with acceptable equipment or material as defined by the Contract Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.
 - 1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.
 - 2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.

- F. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work.
1. Schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work.
 2. Schedule shall include a list of tasks identifying deliverables and the percentage of work completed at key milestone dates for the project.
 3. Schedule shall coincide with anticipated progress payment application dates and shall include projected amounts.
 4. All durations shown will be in working days.
 5. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing and executing the work required by the Contract Documents. The district will rely on such schedules to coordinate and otherwise plan the work of the District, other separate contractors, or the District's routine daily work.

1.03 REFERENCE SPECIFICATIONS

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
1. EIA/TIA Commercial and Administration Standards
 2. NEC
 3. IEEE 802
 4. IETF RFCs
 5. FCC – All Applicable Rules and Regulations
 6. UL
 7. MIOSHA Safety Standards

1.04 CONTRACTOR

- A. Owner, should it feel to be in its best interest, reserves the right to retain services of others for installation and configuration of system components.
- B. Contractor shall be an authorized vendor of all major components.
1. Any work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to configure or install

specified equipment and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods and as required herein.

2. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be provided.
3. The Contractor shall have a proven track record in comparable system supply and installation. This must be shown by the inclusion of references of at least three (3) projects involving the supply and/or installation of similar systems completed by the Contractor in the prior two (2) years with the sealed Bid Proposal as provided herein.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers

- A. Lists of acceptable manufacturers have been provided to establish a standard of quality for individual components associated with the specified system. Indicated components include particular models and makes currently preferred by Owner.
- B. Any system bid shall be based on either acceptable manufacturer's components or components deemed equal in quality and function for the intended applications.
- C. Judgment and determination associated with equivalency of components, compatibility with identified acceptable items and/or fitness for the intended use and application shall be solely by Owner and Designer.
 1. Computer memory shall be certified and sourced from computer equipment manufacturer. No third party memory will be deemed equal.

2.02 Supply most current version of all products provided.

- A. Manufacturer shall have five (5) years of experience and history manufacturing similar products to those specified.
- B. Proposed components shall have been field tested and proven in actual use.
- C. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.
- D. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Owner and Designer on which version is to be used.

- 2.03 Furnish only new, first class quality materials and equipment.
- 2.04 Furnish all materials, patch cables, connections and components required for fully connected and operational system to optimize it for the operational requirements of Owner.
- 2.05 RACK MOUNT SERVERS
 - A. Acceptable Manufacturers (In alphabetical order):
 - 1. DELL
 - a. PowerEdge R730 Rack Server
 - 2. HEWLETT-PACKARD
 - 3. LENOVO/IBM
 - B. Four (4) rack mount computer servers shall be provided, each meeting or exceed the following required feature sets, specifications and/or standards:
 - 1. Dual, Twelve Core Intel Xeon E5-2690v3 2.6 GHz Processors
 - 2. 768GB manufacturer certified LRDIMM, DDR4-2133MHz RAM
 - 3. Two (2) manufacturer certified 500GB SAS Disk Drive
 - a. Configured as mirrored drives
 - 4. Two (2) Intel 10GBASE-T Ethernet ports
 - a. Connection to network core switch
 - 5. Four (4) Intel 1000Base-T Ethernet ports
 - a. Connection to network core switch
 - 6. Redundant Power Supplies
- 2.06 STORAGE AREA NETWORK (SAN) EQUIPMENT
 - A. Acceptable Manufacturers (In alphabetical order):
 - 1. DELL
 - a. EqualLogic PS6100E
 - 2. HEWLETT-PACKARD

- B. SAN shall meet or exceed the following required feature sets, specifications and/or standards:
 - 1. Dual redundant iSCSI attached SAN controllers
 - a. Two (2) full speed 10GBASE-T iSCSI I/O connections / attachment for each storage (SAN) controller to network infrastructure.
 - 2. N+1 Power supply redundancy per tray
 - 3. 64 TB On-line available Storage
 - a. Configured using Sixteen (16) 4TB NL-SAS Drives
 - b. Storage tier shall be connected with 20Gb of bandwidth per dual redundant SAN controller (40Gb total).
 - 4. Available open drive bays and cabinets to add 32 TB additional capacity.
- C. SAN back up equipment shall be provided to meet or exceed the following:
 - 1. All software and utility tools shall be included to provide the following for the environment provided for herein:
 - a. Snapshot capability
 - b. De-duplication functionality
 - c. High speed direct image copy of primary SAN

2.07 OPERATING SYSTEMS

- A. Licensing for fully compliant operation of all components provided in this section, shall be provided. Licensing shall provide for perpetual use, and shall meet or exceed full feature functionality for hardware and warranty requirements, and as may be described herein for each of the following Operating System products:
 - 1. Microsoft Select Plus for Academic Operating System License
 - 2. VMware vSphere Enterprise Plus
 - 3. Veeam Backup & Replication

PART 3 - EXECUTION

3.01 PREPARATION

- A. Contractor shall insure all submittals have been provided and/or updated, and current approval has been obtained from Designer and Owner prior to commencement of any final installation activities specific to each release schedule or phase. Submittals shall include, but not be limited to:
 - 1. Shop drawings, data sheets and system diagrams including specific cable connectors and types proposed to be installed.

3.02 INSTALLATION

- A. The Contractor shall furnish all equipment necessary for a fully compliant and operational system as specified herein. The delivery process includes, but is not limited to the following:
 - 1. Storage of all equipment and components until such time those items are released for delivery to a specific staging location in a specific building according to the specifications.
 - 2. Coordination for delivery of materials to Owner specified sites with Owner personnel to accommodate reasonable, efficient, safe and secure arrival at intended locations.
 - 3. Coordination with Owner, Designer and Others for planning related to installation in Owner provided racks.
 - 4. Transport equipment to the Owner's installation location(s).
 - 5. Inventory receipt of all components and equipment shipped to individual Owner locations to comply with latest release schedule.
 - 6. Work shall include careful coordination and cooperation with others to insure a timely, cost effective and proper installation for Owner's intended application. Such efforts shall include, but not be limited to, coordinating and cooperating with other contractors, Owner, Designer, Contract Designer and Engineer.
 - 7. Physical unpacking and installing components
 - 8. Operating System (OS) load and connection testing.
 - a. All OS installation shall comply with both manufacturers best practices, and commonly accepted industry standard best practices.
 - 9. Each physical component shall bear a unique bar coded label approved by Owner and Designer, provided by Owner and permanently affixed in a location coordinated with Owner. Bar code label shall be unique identification for device which identifies, but is not limited to the following information:

- a. Device MAC address
 - b. Device serial number
 - c. Device model number
 - d. Device asset tag number
10. Contractor shall provide software database populated with inventory data correlated to bar code label as required and directed by Owner and Designer.
 11. Particular and detailed server configuration and integration activities to facilitate production use of components shall not be the responsibility of Contractor, but shall be provided by others under Section 17271 herein.
- B. Worksites include the following:
1. Administration Building
5820 Eastern Avenue SE
Kentwood, Michigan 49508
 2. Freshman Campus
6170 Valley Lane
Kentwood, Michigan 49508
- C. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks or otherwise defaces any surfaces, the Contractor shall repair and/or replace the surface to the original condition.
1. Repairs shall include, but not be limited to patching and painting.
 2. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Contract Designer.
 3. The building and work area shall be returned to its original condition prior to final sign off of the project.

3.03 TESTING

- A. In an effort to insure a smooth “configuration” of the new system Contractor shall submit to a thorough testing process as defined herein prior to final configuration.
- B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified

requirements, meets the owner's specific application requirements and is ready for functionality and integrity testing. Testing shall include, but not be limited to the following:

1. Basic hardware diagnostics to insure all components are properly operating in the Owner environment.
2. Connectivity testing

C. Testing Procedures

1. Prior to system "turn-up", Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system, and are ready to have system integrity and functionality tested. Such request shall include a written proposed test plan for complete system functionality.
2. Within reasonable time after receipt of request and proposed test plan, Designer will provide amendment(s) to the proposed test plan, a test schedule and coordinate testing date(s) with Owner and Contractor.
3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:
 - a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
 - b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.
 - c. Designer will schedule re-test of the Work.
 - d. Excessive re-testing of Work may result in fees being assessed Contractor.
4. Should Designer and Owner concur the Work is configured properly and system integrity is as required:
 - a. Owner and Designer will review Contractors detailed "configuration" plan, and upon finding it acceptable, Contract Designer will issue a memorandum of Testing Completion to Owner and Contractor after which system "configurations" can proceed.

3.04 DOCUMENTATION

- A. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment, including if

reasonably required, file drawers, folders, dividers, etcetera, to contain all as-built drawings/diagrams, owners manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.

B. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:

1. Equipment description.
2. Equipment make.
3. Model number.
4. Software release.
5. Date delivered.
6. Manufacturer's warranty.
7. Maintenance contract terms.
8. Verification of maintenance contract engagement.
9. Telephone numbers for service and support.
10. Detailed technical support and service procedure instructions.
11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.
12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.
13. System Configuration Report.
14. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, Ethernet MAC address, serial numbers, physical installation location and software options.

3.05 TRAINING

- A. Contractor shall provide training for the Owner designated system administrator(s). Owner shall designate up to three (3) administrators to be trained. Training shall be a minimum of two (2), two (2) hour sessions in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
 - 1. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
 - 2. Device additions, moves, repairs and changes as well as reconfiguration.
 - 3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to and system configuration changes.
- B. Contractor shall submit a written training plan, course description(s) and syllabus to Owner and Designer for approval. Owner and/or Designer may require amendments(s) to training plan, course description and syllabus prior to training being scheduled.

3.06 SCHEDULE, MEETINGS AND PLANS

- A. Schedule
 - 1. Final Vendor Presentations: April 01, 2016
 - 2. Contractor Chosen: April 19, 2016
 - 3. Work Commences: May 02, 2016
 - 4. Substantial Completion of Project: June 10, 2016
 - 5. Project Close-out: June 17, 2016
- B. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.
- C. All work shall be coordinated with Owner's construction manager on site.
- D. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION

SECTION 17271
DIRECTORY SERVICE INSTALLATION AND INTEGRATION

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to integration of new equipment (17270) and installation, configuration and integration of new directory services with existing systems into a new core computer server infrastructure intended to be used for instructional and administrative applications.
- B. Contractors shall propose labor and/or work plans to be deployed using standard procedures, best practices and technology components and as specified herein.
- C. The Contractor shall design, engineer, configure, integrate, migrate, test, document, train Owner representatives and warrant a fully operational and compliant system and/or component connection to the system complete and with full functionality as specified herein.
- D. Contractor shall provide for full server migration of all district existing assets that are currently virtualized to new hardware platform. This process shall include, but not be limited to the renovation and reconfiguration of server, application and access controls to incorporate Microsoft Active Directory (AD) integration to the greatest degree possible.
- E. Contractor shall advise, coordinate and work cooperatively with Owner representatives or owner's designee related to configuration changes required and/or proposed for Owner's existing physical infrastructure.
- F. Contractor shall carefully coordinate their testing and delivery with other contractors, Designer and the Owner as is appropriate.

1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure due to workmanship for a period of one (1) year. Any reconfiguration or fix for any non-conforming or non-operational part of the system shall be fixed and/or reconfigured at no cost to the Owner.
 - 1. Hardware warranty shall be by others as specified in Section 17270 herein.

- B. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.
- C. Contractor shall provide the following response times for all malfunctioning equipment:
 - 1. Four (4) hours or less for matters that render system unable to maintain normal productivity.
- D. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- E. Bidder shall provide proactive system service at the end of the warranty period. Such warranty service shall include, but not be limited to refresher instruction for technical team, maintenance of firmware and Operating System versions including any installation or patching as may be necessary to insure systems currency, review of best practice operations and detailed written commentary review of system logs and files.
 - 1. Written commentary shall be delivered and presented one month prior to completion of the warranty period.

1.03 SUBMITTALS

- A. A summary work plan, project outline and schedule shall be submitted by Bidder for consideration by Owner with Bid Proposals.
 - 1. Contractor shall submit a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work.
- B. Resumes and proof of credentials for Project Manager, Engineers, Technicians and Trainers proposed to work on project shall be submitted by Bidder for consideration by Owner with Bid Proposal.
 - 1. Substitution of key personnel identified in bid documents without prior written consent of both Owner and Designer Shall constitute a material breach of contract by Contractor.
- C. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a detailed schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work.
 - 1. Schedule shall be broken into work areas to provide for a clear identification of the planned progress and key milestones of the work.

2. Schedule shall include a list of tasks identifying deliverables and the percentage of work completed at key milestone dates for the project.
 3. Schedule shall coincide with anticipated progress payment application dates and shall include projected amounts.
 4. All durations shown will be in working days.
 5. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing and executing the work required by the Contract Documents. The district will rely on such schedules to coordinate and otherwise plan the work of the District, other separate contractors, or the District's routine daily work.
 6. No work constituting final installation shall be commenced until after formal approval by Owner and Designer.
- D. Work product or material installed for this project that does not have an approved submittal associated with it, will be removed and replaced with acceptable material as defined by the Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.
1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.
 2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.

1.04 REFERENCE SPECIFICATIONS

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
1. EIA/TIA Commercial and Administration Standards
 2. NEC
 3. IEEE 802
 4. IETF RFCs
 5. FCC – All Applicable Rules and Regulations
 6. UL

7. MIOSHA Safety Standards

1.05 CONTRACTOR

- A. The Contractor shall accept complete responsibility for the certification and support of the system and/or components as required herein. Contractor shall be an authorized installation agent of all major components should such a designation be available.
- B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install system and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods.
- C. Contractor staff employed on this project shall be properly trained, certified, experienced and provide proof of required credentials.
 - 1. Project Managers, Engineers and Technicians shall be properly and fully trained and qualified by the manufacturer or industry recognized certification programs acceptable to the Owner on the installation and testing of the equipment and systems to be installed.
 - 2. A Project Manager having Project Management Professional (PMP or equal) credentials shall supervise this project.
 - 3. Contractor credentials and certification for directory service installation and configuration. Owner intends to migrate an assortment of enterprise technologies, including, but not limited to Google, Microsoft Servers, VMware. Chromebooks, Server 2008 into a new Microsoft AD platform from the existing Novell eDirectory based system. Work shall include, but not be limited to, coordination of application software with Operating Systems for full version control and compatibility for this project.
 - 4. Engineers and technicians shall possess Microsoft Certified Systems Engineer (MCSE) Server Infrastructure certification or greater.
 - 5. Engineers and technicians shall possess VMware Certified Professional (VCP) for current version of VMware ESXi and vSphere certification.
 - 6. Contractor shall hold current Microsoft and VMware certifications.
 - a. Preference will be given to Bidders holding Microsoft Certification with Server Infrastructure competencies and strong documented experience in deployment of integrated Active Directory services.
 - b. Preference will be given to bidders with staff engineers possessing VMware Certified Design Expert (VCDX6-DCV) and/or VMware Certified Advanced Professional (VCAP6-DCV) certification.

7. Substitution of personnel for this project shall not be made without prior written approval by Owner and Designer. Unauthorized or unapproved substitution shall be deemed a material breach of contract by Contractor.
- D. The Contractor shall have a proven track record in comparable system supply and configuration. This must be shown by the inclusion of references of at least three (3) projects involving the supply and/or installation of similar systems completed by the Contractor in the prior two (2) years with the sealed Bid Proposal as provided herein.

PART 2 - PRODUCTS

2.01 Not used for this section

PART 3 - EXECUTION

3.01 PREPARATION

- A. Contractor shall conduct detailed walk-through examination with Designer and Owner verifying equipment and material locations as well as application, management and user requirements prior to commencement of other implementation and integration activities.
- B. Contractor shall insure all submittals have been provided to, and formal approval has been obtained from Owner prior to commencement of any final installation activities.

3.02 INSTALLATION

- A. Contractor shall conduct detailed discovery session(s) with Owner technical team prior to finalization of formal migration plan.
- B. Contractor shall develop and present for Owner and Designer approval a complete architecture and system migration plan including, but not limited to:
 1. Overall system architecture proposed for Active Directory Implementation.
 - a. Integration plan for enterprise applications and services.
 - b. Extent of viable initial deployment of single sign-on and authentication based on user role.
 - c. Workstation OS and application management maintenance and version control integration with Microsoft AD opportunities.
 2. Detailed AD database structure, data set definitions and mapping.

3. Migration plan for existing applications, information, hardware and eDirectory to new hardware and AD including, but not limited to sequence and schedule.
 - a. Plan for virtual servers, applications and databases migrated from Owner's existing hardware to new hardware.
 - b. Existing directory structure (eDirectory) on existing platforms to approved AD structure for virtual servers, applications and databases.
 - c. Transfer to production mode for new systems.
 4. Level for each system/server integration with AD and any unique aspects of integration with AD for a particular system/server.
 5. New system back-up plan and configuration given new versions of operating systems and new hardware deployed.
 6. Owner and Designer shall require up to two weeks to complete review(s) of preliminary architecture plan and provide written approval. Approval will be dependent upon acceptable and timely response to answers Owner and Designer may require of Contractor after the presentation of the plan.
 - a. If Contractor is unable to provide a plan acceptable to Owner and Designer after a reasonable duration is extended to do so, Owner reserves the right to terminate Contract.
- C. Contractor shall be familiar with the environment where work will be done as specified herein and make every reasonable effort to minimize interference with Owner's normal daily activities.
- D. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in approved, secure storage locations. Any work that may impede the general use of the space and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.
- E. All software and hardware configuration shall be done in a neat and workmanlike manner. Manufacturers' best practices and principles for installation, configuration, documentation and operations shall be used throughout the project. No deviations from manufacturer best practices and principles will be acceptable.
- F. The Contractor shall configure, and integrate migrate all equipment necessary for a fully compliant and operational system as specified herein. The integration process includes, but is not limited to the following:

1. Collect all information necessary to accurately program all devices provided by others to the Owner's intended use and need.
2. Label (physical and electronic) all system devices as may be appropriate and required by Owner and Designer.
3. Configure/integrate/program devices provided by others to the Owner's intended use and need.
4. Coordinate with others for interconnection, integration and installation of other physical and programmatic components on the Owner's network infrastructure.
5. Coordinate and schedule with Owner any/all system and application outages for this live system upgrade. Unscheduled system and/or application outages shall not be acceptable, and may result in back charges to the Contractor.
6. Convert Owner's existing system application servers to integrate with AD, providing for coordination and optimization the new AD environment.
7. Decommission all legacy servers after migration. This will include, but not be limited to:
 - a. eDirectory
 - b. iPrint
8. Remove physical servers and storage systems from Owner's production data center environment at the Freshman Campus and re-install existing equipment at Owner's back-up site within the Administration building.
 - a. Initiate new back-up program with physically separated systems installed in production locations.
9. Complete end user and system administrator overview training programs as specified herein.
10. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.

G. Worksites include the following:

1. Administration Building
5820 Eastern Avenue SE
Kentwood, Michigan 49508
2. Freshman Campus

6170 Valley Lane
Kentwood, Michigan 49508

- H. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks or misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate or panel to the original condition.
 - 1. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Contract Designer.
 - 2. The building and work area shall be returned to its original condition prior to final sign off of the project.
- I. Following installation and system “turn-up”, but prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.
 - 1. Interview candidates and techniques shall be approved by Owner in advance of any staff interaction.
 - 2. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.
 - 3. Interviews shall not exceed 24 persons.

3.03 TESTING

- A. In an effort to insure a smooth “turn-up” of the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over.
- B. Prior to requesting testing by Designer and Owner, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner’s specific application requirements and is ready for functionality and integrity testing.
- C. Testing Procedures
 - 1. Prior to system “turn-up”, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system, and are ready to have system integrity and functionality tested. Such request shall include a written proposed test plan for complete system functionality.

2. Within reasonable time after receipt of request and proposed test plan, Designer will provide amendment(s) to the proposed test plan, a test schedule and coordinate testing date(s) with Owner and Contractor.
3. Should Designer, Contract Designer and/or Owner determine the Work is not acceptably configured or not of adequate integrity:
 - a. Contract Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
 - b. Contractor shall then expeditiously remedy the deficiencies and notify Contract Designer in writing when ready for re-testing.
 - c. Contract Designer will schedule re-test of the Work.
 - d. Excessive re-testing of Work may result in fees being assessed Contractor.
4. Should Designer, Contract Designer and Owner concur the Work is configured properly and system integrity is as required:
 - a. Contract Designer will review Contractors detailed “turn-up” plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner, Designer and Contractor after which system “turn-up” can proceed.

3.04 DOCUMENTATION

- A. Contractor shall be responsible for providing thorough, timely documentation on all system configuration, integration and connections. Documentation shall include, but not be limited to:
 1. Drawings/diagrams of system interconnections.
 - a. Physical
 - b. Logical
 2. Equipment description.
 3. Equipment make.
 4. Model number.
 5. Software release.
 6. Date installed.

7. Procedure manual for new system administration
8. Telephone numbers for service and support.
9. Detailed technical support and service procedure instructions.
10. As built drawings/diagrams for each building.
11. System Configuration Report.

3.05 TRAINING

- A. Contractor shall provide on-site system configuration overview training for Owner designated system administrator(s). Owner shall designate up to three (3) administrators to be trained. Training shall be a minimum of Three (3), six (6) hour sessions in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
 1. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
 2. System back-up and restore functions and procedures for all system parameters and configurations.
 3. Review of system features provided for as part of upgraded operating systems and system migrations.
 4. Review of system alerts, logs and monitoring of automatic configuration changes provided by the system in configured parameters that may include, but not limited to power changes, load balancing and port status.
 5. Complete review of System Administration Procedure Manual as developed by Contractor, approved by Owner and provided for herein.
- B. Contractor shall provide certification training for Microsoft AD for two (2) system administrators designated by Owner. Owner shall bear no costs (tuition, travel, etc.) for training except personnel time and living expenses (lodging and meals) while training designees are off site, if training is conducted remotely. Training shall be certified Microsoft Active Directory Domain Services (AD DS) program. Virtual training conducted on Owner's site using Owner's location and physical equipment shall not be acceptable.
 1. Microsoft 20410D: Installing and Configuring Windows Server 2012
 2. Microsoft 20411: Administering Windows Server 2012

- C. Contractor shall provide for two (2) Owner designated system administrators to sit for both Microsoft certification tests related to courses identified herein. Owner shall bear no costs for designated personnel to take designated exams.
- D. Contractor shall submit a written training plan, course description(s) and syllabus to Owner and Designer for approval. Owner and/or Designer may require amendments(s) to training plan, course description and syllabus prior to training being scheduled.

3.06 SCHEDULE, MEETINGS AND PLANS

A. Schedule

1. Final Vendor Presentations: April 01, 2016
 2. Contractor Chosen: April 19, 2016
 3. Work Commences: May 02, 2016
 4. Substantial Completion of Project: August 05, 2016
 5. Project Close-out: August 19, 2016
- B. Planed sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.
 - C. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION