



Request For  
Proposal

## Middle School Gyms Audio/Visual Systems Upgrade

Mattawan Consolidated School District  
56720 Murray St.  
Mattawan, MI 49071

Distributed by:

Contact Tony Nuismer  
[tnuismer@mattawanschools.org](mailto:tnuismer@mattawanschools.org)  
269-585-3052

## PART 1 - GENERAL

### 1. INTRODUCTION

- A. Mattawan Consolidated School invites qualified contractors to provide proposals for Audio/ Visual Presentation Systems for the Middle School Gyms.. This work includes:
- a. The base bid is the cost for the installation of all the audio and visual components for the Gymnasiums. All work shall include all equipment, labor, installation, and testing.
  - b. The Contractor shall pay all costs of the Work including, but not be limited to, labor, materials, equipment, tools, transportation, freight, taxes, royalties, patent fees, support facilities, construction equipment, water, heat, utilities, supervision, overhead, and all other items necessary for the proper execution and completion of the Work.

### 2. CONTACTS

- A. The contact for all questions and any addendums during bidding shall be:

Tony Nuismer  
269-585-3052  
tnuismer@mattawanschools.org

- B. The owner as referred to in this bid is:

Mattawan Consolidated Schools  
56720 Murray Street  
Mattawan, MI 49071

### 3. DUE DATES

- A. **Sealed Bids are due at 2:00 PM on Friday, March 28th, 2025**

Mattawan Consolidated School  
Middle School Gymnasium Bid  
Attn: Pam Stermer  
56720 Murray Street  
Mattawan, MI 49071

- B. **A mandatory pre-bid meeting will be held at 2:00 PM on Thursday, February 27th, 2025.**

Location:

Mattawan Middle School  
24959 McGillen  
Mattawan, MI 49071

- C. All questions will be submitted to the owner no later than **March 10th, 2025**. All questions shall be sent via email to Tony Nuismer: [tnuismer@mattawanschools.org](mailto:tnuismer@mattawanschools.org)

4. BUILDING SITES

- A. Work to be completed as part of this bid will be done at the locations as detailed in the drawings and specifications at the end of this bid.
- B. Access to the locations shall be from 2:30 PM to 7:00 AM Monday thru Friday as school is in session and the spaces are in use.
- C. The District reserves the right to waive any formalities to bid, to reject any or all bids and to accept the bid that is most favorable to the District.
- D. The District does not incur any responsibility for Bidder's costs in preparing the bid proposal.
- E. Bidder recognizes the District is subject to the Freedom of Information Act. Per formal request the district will make bid documents available for public review following contract with a successful bidder.

5. BID RESPONSE FORMAT

- A. The owner requires all responses include the information listed below.
- B. **All bid responses shall be submitted sealed and in a binder. Provide two copies of the bid response.** One shall be marked as the ORIGINAL. The ORIGINAL shall be signed by a duly designated Officer of the company.
- C. Bid responses shall be provided in the following format with section dividers.
1. Bid Form – See Bid Documents
  2. Description of the bidder's company
  3. Description of the bidder's response and the services they will provide.
    - a. Include information about any manufacturer required on-going maintenance costs for software or hardware or upgrades.
  4. Spreadsheet detailing all equipment being submitted per building.
  5. Personnel working on the project including:
    - a. Project Manager. The direct contact. Include a resume.
    - b. List of proposed subcontractors and a scope of their work.
  6. Any information the bidder wishes to include that was not specifically required.

7. DOCUMENTS

1. Drawings of each location are included at the end of this bid document.

**PART 2 - PERSONNEL**

1. BIDDER

- A. Minimum Bidder Qualifications:
1. Bidder must be fully licensed and insured.
  2. Bidder must be fully authorized by the manufacturer being proposed to install and configure the equipment.
  3. Shall have technicians who are fully certified to install and configure the equipment being provided as part of the bid.
- B. Bidder shall address each item in this package as specified. All required labor and equipment must be quoted. Any exception must be noted and explained. All bids must include the entire section bid to be considered.
- C. The Contractor can withdraw their bid at any time prior to opening the bids.
- D. Work shall be coordinated with the district's Director of Information Technology.

2. PERSONNEL
  - A. All personnel working on the project shall be certified by the manufacturer to install, configure and connect the equipment as per the owner's requirements and the manufacturer's specifications.
  - B. The contractor shall assign a Project Manager to the project who will have ultimate authority to make decisions, schedule work and fix or repair any non-conforming equipment.
    1. Provide a list of the projects of similar size and scope to the work they will be doing as part of this project. Include examples of three projects with similar scope that the PM has worked on in the last three years.
    2. The project manager will be the primary contact for this project
    3. The project manager shall attend any project meetings and be fully aware of all work going on as part of the project.
3. BACKGROUND CHECKS
  - A. Contractor's staff may be required to pass a security clearance check conducted by the Owner.
  - B. The Contractor shall authorize the investigation of its personnel proposed to have access to facilities and systems on a case-by-case basis.
    1. The scope of the background check is at the discretion of the School district and the results will be used to determine Contractor's personnel eligibility for working within State facilities and systems.
    2. Such investigations will include Michigan State Police Background checks (ICHAT) and may include the National Crime Information Center (NCIC) Finger Prints.
    3. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Finger Print Check.
    4. Any request for background checks will be initiated by the district or construction manager and will be reasonably related to the type of work requested.

### **PART 3 - WORK REQUIREMENTS**

1. DOCUMENTS
  - A. The contractor shall review all bid documents including specifications and the drawings. The specifications and documents and any addenda detail the requirements of the chosen contractor.
  - B. It is mandatory that items of material and equipment conform to the Contract Documents and meet the quality standards in every respect.
2. PRODUCTS
  - A. All products shall be of the latest manufacture. No remanufactured or used equipment shall be provided as part of the bid.
  - B. All equipment shall be provided in the manufacturers shipping container. Provide copy of the shipping lists as part of the project documentation.
3. PRODUCT DELIVERY AND LIABILITY
  - A. The contractor shall be responsible for the complete installation of new and un-damaged products.
  - B. The contractor shall be liable for all equipment until it is formally accepted by the owner in writing. This shall include the equipment when it is in the contractor's facility and when it is in the owner's facility until it is formally accepted.
4. DAMAGE
  - A. The contractor shall be responsible for all damage made to the building or any of the buildings contents during their work as part of this project.
  - B. The contractor shall not disturb any hazardous material or materials that they are not

authorized to work with.

5. INCIDENTAL WORK AND PERMITS
  - A. The contractor shall be responsible for requesting, obtaining and paying for any and all permits required for their work by the local, county, state and federal authorities having jurisdiction (AHJ) over the work being performed.
  - B. Provide any and all work or equipment required by the Authority Having Jurisdiction (AHJ) that may or may not be specifically noted in these documents.
6. INSPECTION OF THE WORK
  - A. The contractor shall keep up to date as-builts on site for the duration of the project. The engineer may request to see the as-built documents at any time.
  - B. The Contractor shall promptly facilitate inspection and testing of the Work regardless of expense as necessary or as requested by the District, regardless of whether or not the Work in question is his own or that of a subcontractor.
  - C. If such tests or inspections reveal deficiencies as measured by Construction documents or an independent consultant/testing agency or the owner/engineer, the Contractor shall bear all costs incurred to correct such deficiencies, and the cost to reconstruct any work to meet the contract documents.
7. PROJECT MEETINGS
  - A. The contractor shall attend project meeting as designated by the owner or engineer. Attendance is mandatory.
  - B. Meetings typically will be every two weeks and additionally as requested by the Director of Information Technology.

#### **PART 4 - WORK SCHEDULES**

1. PROJECT SCHEDULE
  - A. It is the intention of the District to take possession of the Work by the established completion date or earlier, within the shortest time possible consistent with good construction practices.
    1. Completion date for all work is June 1st, 2025
    2. All work shall be 100% completed at this time.
  - B. Upon award of the contract the contractor shall provide a complete schedule for their work. This shall reference dates in the document and be coordinated with the schedule of any other contractors:
    1. Include start date
    2. Products installed
    3. Punch list work complete
    4. Substantial Completion
    5. Final Completion after system has been working for 30 days with no outages or failures
  - C. If the work is delayed through the fault of the District (or of any separate contractor employed by the District or of any condition by the District beyond the Contractor's control) the schedule may be extended within a period agreed upon by the District and the Contractor.
    1. The Contractor shall notify the District, in writing, of any condition or situation that in

- the Contractor's opinion warrants an extension of Contract Time.
2. The Contractor shall not be entitled to additional compensation or damages due to delays, interference's or interruptions to the Work or the Project, but shall be entitled only to an appropriate extension of time in accord with the General Conditions of the Contract for Construction.

## **PART 5 - DEFICIENT WORK**

### **1. PRODUCT AND INSTALLATION DEFICIENCIES**

- A. The Contractor shall expediently correct all deficiencies brought to his attention in writing by the District. If, in the opinion of the District and the independent agency, the Contractor fails to correct deficiencies, or fails to act expeditiously to correct deficiencies, the District may:
  1. Accept the deficiencies in the Work, and reduce the Contract Sum of the Contractor at fault by a unilateral Change Order issued and signed by the District in an amount to be determined by the District. Have the deficiencies removed in any reasonable manner available to the District, and charge the Contractor at fault for the costs incurred, or reduce that Contractor's Contract Sum by a unilateral Change Order issued by the District for the costs incurred.
- B. The Contractor shall pay all costs of the Work including, but not limited to, labor, materials, equipment, tools, transportation, freight, taxes, royalties, patent fees, support facilities, construction equipment, water, heat, utilities, supervision, overhead, and all other items necessary for the proper execution and completion of the Work.

## **PART 6 - GENERAL**

### **1. LEGAL REQUIREMENTS**

- A. The Contractor shall comply fully with all laws, statutes, ordinances, rules, regulations, codes, and lawful orders applicable to their work, including employment regulations, unless specifically exempted from compliance by the Contract Documents. Where local codes differ from codes of broader jurisdictions, the more stringent code shall apply. The Contractor shall promptly notify the District in writing of items in the plans or specifications for this project that violate any applicable codes.

### **2. CLEAN SITE**

- A. The contractor shall clean the site daily and have the space accessible for classroom instruction by 7:00 AM each day.
- B. The contractor shall be responsible for disposal and removal from the site any and all waste and debris generated from their work.
- C. All dust or ceiling debris generated as part of the work shall be cleaned each day.

### **3. TAXES**

- A. The bidder is responsible to apply all tax information within their proposal. Contractor is responsible for applying such tax with each request for payment and complying with Federal, State and local laws.
- B. All tax costs shall be included in the base bid price.

### **4. PAYMENTS**

- A. The contractor shall submit an invoice on the AIA form G702/G703 each month. The invoice shall include only work completed at the time of submission.

- B. The contractor can be paid for equipment in storage at the owner's site as long as the owner is provided with proof of insurance for the equipment.
- C. The owner will provide payment on the invoice within 21 days of a signed invoice by the engineer and contractor.
- D. The owner will retain 10% of the total cost of the project until the system is considered finally complete as detailed in the project documents.

**PART 7 - REVIEW OF BIDS**

1. DISTRICT REVIEW

- A. The Owner reserves the right to waive any formalities to bid, to reject any or all bids, or to accept the bid that is most favorable to the Owner. The Owner does not incur any responsibility for Bidder's costs in preparing the bid proposal.

2. BID BOND

- A. Provide with the bid response a 5% Bid Bond which is required for all proposals. The bond must be in the form of a certified check or a bond executed by a surety company authorized by the State of Michigan. The amount of the bond shall be forfeited if the Contractor, after being awarded the bid, fails to enter into an appropriate contract with the District within (30) days.

3. PERFORMANCE BOND

- A. Successful bidders, for work valued at \$50,000 or more, will be required to secure Performance, Labor and Material Bonds issued for the full amount (100% value) of the contract by a company licensed to do business in the State of Michigan and having an A.M. Best rating of A- or better. The cost of these bonds is to be included in the proposal amount.

4. INSURANCE

- A. Contractors must have the proper insurance forms submitted prior to start of their Work. The required insurance shall be written for not less than the limits shown below, or greater if required by law. Contractors will require all subcontractors to maintain similar coverage limits. The Contractor shall name the District as additional insured.

1. Standard Workers Compensation and Employers Liability Employers Liability

- a. \$500,000 Bodily Injury by Accident—each accident
- b. \$500,000 Bodily Injury by Disease—each employee
- c. \$500,000 Bodily Injury by Disease—policy limit

2. General Liability Combined Single Limit Liability

- a. \$1,000,000 each occurrence
- b. Or Split Limit Liability
- c. \$500,000 Bodily Injury—each occurrence
- d. \$500,000 Property Damage—each occurrence

3. Aggregates

- a. \$1,000,000 General Aggregate
- b. \$1,000,000 Products-completed operations
- c. Automobile Liability Combined Single Limit Liability
- d. \$500,000 each accident

Or

- e. Split Income Liability
- f. \$500,000 Bodily injury—each person
- g. \$500,000 Bodily injury—each accident
- h. \$500,000 Property Damage—each accident

4. Umbrella Insurance

- a. \$2,000,000 Limit over primary insurance

5. REVIEW OF BIDS

A. Bids will be reviewed based on the following criteria:

1. Prices/Charges - 25%
2. Prior Experience - 20%
3. Understanding of Needs - 5%
4. Financial Stability - 5%
5. Personnel Qualifications - 10%
6. Comply With Spirit of Tech Plan - 5%
7. Compatibility with District Hardware 5%
8. Long Term TCO - 5%
9. Upgradability - 5%
10. Completeness - 5%
11. Summary of Implementation - 5%
12. Success Completion - 5%
13. The owner reserves the right to make any decision which they deem to be in their best interest regardless of price or experience of the bidders.

**END OF SECTION**



# BID FORM

## Middle School Gyms Audio/Visual Systems Upgrade



TO: Mattawan Consolidated  
Schools 56720 Murray Street  
Mattawan, MI 49071

**Company Name:** \_\_\_\_\_

hereinafter called "Contractor", does agree to provide equipment and labor as described in the specifications and drawings.

**Total Project Cost:** \$ \_\_\_\_\_ (in numbers)

The base bid is the cost for the installation of all the audio/visual systems including all equipment, labor, installation, training, configuration, and testing.

**BID FORM**  
**Middle School Gyms Audio/Visual Systems**  
**Upgrade**

Authorized Signature: \_\_\_\_\_

Name (printed): \_\_\_\_\_

Date: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Addenda**

The Contractor acknowledges receipt of the following addenda and has included their costs in the Total Base Bid price shown above.

Addendum # \_\_\_\_\_ Dated: \_\_\_\_\_ Addendum # \_\_\_\_\_ Dated: \_\_\_\_\_

Contractor Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**Voluntary Alternates:**

Voluntary alternates are allowed and may be considered at the discretion of the owner. For each voluntary alternate, provide a brief written description and attach additional information as required to fully describe intent. Additional alternates may be submitted separately. All alternates shall be completely inclusive and shall not require any additional work by other trades.

1. \_\_\_\_\_  
Description  
Add / Deduct (circle one)                      \$ \_\_\_\_\_

2. \_\_\_\_\_  
Description  
Add / Deduct (circle one)                      \$ \_\_\_\_\_

# BID FORM

## Middle School Gyms Audio/Visual Systems Upgrade

Provide pricing for the described work or the described product as a single unit cost. The unit cost shall include any travel, equipment labor, overhead and tax required for purchase and installation of the product or service.

**Breakout Pricing for each bid category:**

Include pricing on a school by school basis.

1. Middle School "New" Gym      Cost: \$ \_\_\_\_\_

2. Middle School "Old" Gym      Cost: \$ \_\_\_\_\_

**STATEMENT REGARDING FAMILIAL RELATIONSHIP**

AFFIDAVIT OF \_\_\_\_\_  
*(name of affiant)*

STATE OF MICHIGAN COUNTY

OF \_\_\_\_\_

\_\_\_\_\_ makes this Affidavit under oath and states as follows:

- 1. I am a/the  President
- Vice-President
- Chief Executive Officer
- Member
- Partner
- Owner
- Other (please specify) \_\_\_\_\_

Of \_\_\_\_\_, a bidder on a construction project for  
*(insert name of contractor)*

\_\_\_\_\_ that involves, at least in part, construction  
*(insert name of school district)*

of a new school building or an addition to or repair or renovation of an existing school building.

2. I have personal knowledge and/or I have personally verified that the following  
are all of the familial relationships existing between the owner(s) and employees(s)  
of the aforementioned contractor and the school district's superintendent and/or board members

\_\_\_\_\_

3. I have authority to bind the aforementioned contractor with the representations  
contained herein, and I am fully aware that the school district will rely on my  
representations in evaluating bids for the construction project.

4. I declare the above information to be true to the best of my knowledge, information and belief. I could completely and accurately testify regarding the information contained in this affidavit if requested to do so.

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*(signature of affiant)*

Dated \_\_\_\_\_

Subscribed and sworn before me in \_\_\_\_\_ County, Michigan, on the \_day of\_, 202\_

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(signature)

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(printed)

Notary public, State of Michigan, County of \_\_\_\_\_

My commission expires on \_\_\_\_\_

Acting in the County of \_\_\_\_\_

## Iran Economic Sanctions Act Certification

I am the (title) \_\_\_\_\_ of

(Bidder/Company) \_\_\_\_\_,

or I am bidding in my individual capacity ("Bidder"), with authority to submit a binding bid for the Later Elementary Technology Systems at Mattawan Consolidated Schools. I have personal knowledge of the matters described in this Certification, and I am familiar with the Iran Economic Sanctions Act, MCL 129.311, *et seq.* ("Act"). I am fully aware that the school district will rely on my representations in evaluating bids.

I certify that Bidder is not an Iran-linked business, as that term is defined in the Act. I understand that submission of a false certification may result in contract termination, ineligibility to bid for three (3) years, and a civil penalty of \$250,000 or twice the bid amount, whichever is greater, plus related investigation and legal costs.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed)

\_\_\_\_\_  
(Date)



## PART 1 - GENERAL

### 1. SECTION INCLUDES

- A. This section provides a project overview and general project and Contractor requirements.
- B. The “Contractor” as referred to in these specifications, shall be the bidder whose bid is eventually chosen as the winner.
- C. The “Engineer” as referred to in these specifications, shall be Mattawan Consolidated School and its representative on this project.
- D. The “Owner” as referred to in these specifications, shall be the Mattawan Consolidated School and its representatives.
- E. In the detailed specifications and on the contract drawings, the phrases “or equivalent,” “approved equivalent,” “approved equal,” “or equal” and “engineer approved equivalent” shall be used interchangeably and shall mean the same thing.
- F. All equals, equivalents, or alternates shall be approved by the Engineer prior to ordering or installation. Without approval, deviation from the products listed in the specifications and on the drawings shall be presumed to be nonconforming and shall be removed and replaced at the direction of the Engineer and at the Contractor’s expense.

### 2. DESCRIPTION OF PROJECT

- A. Audio and Video Systems
  - 1. Install/Upgrade Audio/Visual systems with controls from a centralized location within each space.
  - 2. Test all AV systems.
  - 3. Train Technology Department on general use of the system.
- B. Post installation documentation
  - 1. The contractor shall provide post installation documentation per the specifications. Shall include but not be limited to:
    - a. Red-lined as-built drawings.

### 3. STORAGE OF MATERIALS

- A. All materials shall be secured when not in use by the Contractor.
- B. It shall be the Contractor’s responsibility to secure all equipment including all material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and materials not officially accepted by the Owner.

### 4. SHOP DRAWINGS

- A. Shop drawings shall be submitted for approval by the Contractor prior to final installation of the work. The shop drawings shall show all data relating to the structural, electrical, wiring diagrams, etc.

### 5. REFERENCE SPECIFICATIONS



A. All work applicable shall conform to the following standards:

1. EIA/TIA-568B.1: Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements including all updates and Addenda.
2. EIA/TIA-568C.2: Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted Pair Cabling Components including all updates and Addenda.
3. EIA/TIA-568B.3: Optical Fiber Cabling Components Standard including all updates and Addenda.
4. EIA/TIA-569-A: Commercial Building Standard for Telecommunications Pathways and Spaces including all Updates and Addenda.
5. EIA/TIA-570-A: Residential and Light Commercial Telecommunication Wiring Standard including all Updates and Addenda. EIA/TIA-606-A: Administration Standard for the Telecommunications Infrastructure of Commercial Buildings including all Updates and Addenda.
6. EIA/TIA-607-A: Commercial Building Grounding/Bonding Requirements.
7. IEEE 802.3-1990: (also known as ANSI/IEEE Standard 802.3-1990) or ISO 8802-3 - 1990 (E), Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications.
8. TIA/EIA-526-7 Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant.
9. TIA/EIA-526-14-A Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant.
10. NEC, 2005, or latest edition available.
11. ANSI/TIA/EIA-568-B.2-10 (current draft), Commercial Building Telecommunications Cabling Standard, Addendum 10: Transmission Performance Specifications for 4-Pair Augmented Category 6 Cabling.

6. CONTRACTOR –AUDIO/VIDEO

- A. The Contractor shall accept complete responsibility for the installation, certification, and support of the system. Contractor shall show proof that they have the certifying manufacturer's support on all of these issues.
- B. All work shall be performed and supervised by Audio/Video Technicians and Project Managers who are qualified to install audio/video systems and cabling and to perform related tests as required by the manufacturer in accordance with the manufacturer's methods.
- C. The Audio/Video Technicians employed shall be fully trained and qualified by the manufacturer on the installation and testing of the equipment to be installed.
- D. The vendor (including Subcontractor(s) if any) shall have a proven track record in audio/video system configuration and installation. This must be shown by the inclusion of details of at least 3 projects involving the installation of like sized audio/video systems that have been completed by the vendor in the last 2 years. Names, addresses, and phone numbers of references for the three projects shall be included.
- E. Sound/Video Contractor shall have at minimum 1 NICET level 2 project manager and 1 NICET level 1 certified installer/technician.
- F. The Contractor shall utilize the following equipment in configuring and testing the audio signals for final system tuning:
  1. TEF Analyzer, Smart-Pro Analyzer, Calibrated Microphone, Impedance Meter, and Noise Generator

**PART 2 - PRODUCTS**

Not used.

## PART 3 - EXECUTION

1.

### INSTALLATION

- A. Contractor shall be familiar with the location(s) where the work will be done. No additional compensation will be made for items the Contractor claims he was not aware of during bidding.
- B. Work Area:
  - 1. All work areas shall be cleaned at the end of each day. All debris shall be cleaned and removed from the site and disposed of in the approved container for the site.
  - 2. All equipment shall be moved out of common areas and stored in the Contractor's lay down area, or in other approved storage locations on site.
  - 3. Any work that is low hanging, or may otherwise impede the general use of the space, and cannot be removed, shall be flagged and cordoned off by the Contractor.
- C. All equipment and parts shall be installed in a neat and workmanlike manner. Good installation principles shall be used throughout the project.
- D. All cables routed above a drop ceiling or in the ceiling area shall be installed square to the building. Diagonal cable runs are not permissible.
- E. All cut edges of conduits, boxes, raceway, etc., shall be trimmed and filed so no burrs or rough edges will damage cable as it is installed.
- F. All surface raceways, including conduits in exposed areas shall be painted to match the existing colors of the surrounding area.
- G. If in the course of the work, the Contractor damages, marks, or misplaces any ceiling tiles, the Contractor shall repair, and/or replace the ceiling tile to the original condition.
  - 1. The Engineer shall decide if ceiling tiles have been damaged. Based on the Contractor's proposed fixes, the Engineer shall decide the best course of action to repair any damage done by the Contractor to the ceiling tiles.
- H. It shall be the responsibility of the Contractor to repair any damage done to the structure or finishes in the building by the Contractor. The building shall be returned to its original condition prior to final sign off of the project.

2.

### DOCUMENTS

- A. The Contractor shall fully read the contract documents including the detailed specifications, and the detailed drawings.
- B. No additional compensation shall be made for any portion of the project which the Contractor did not know of or understand prior to providing the bid response.
- C. In the case of any discrepancies between the detailed drawings and the detailed specifications, the Contractor shall provide the higher quality or more stringent requirement.

### 3. WORK PLAN-POST BID (CHOSEN CONTRACTOR ONLY)

- A. Along with the submittals the Contractor shall provide a work plan for the implementation of the audio/visual systems. The plan shall include scheduled dates for major milestones, and all phases required for completion prior to final cutover.
- B. The work plan shall list all items that must be completed by the Contractor or Owner to provide a smooth install. The Contractor shall be responsible for all costs associated with the planning. The Owners only responsibility is to act as a liaison between the Contractor and

the users.

- C. The work plans shall include a time line. Contractor shall be responsible for all aspects of scheduling the work.
- D. The work shall commence within 10 days of award of the contract. At the Owner's discretion, the Contractor shall be responsible for attending bi-weekly project meetings at the Owner's site to report on progress and keep the project team informed of the work being done.
- E. The work plan will be reviewed at each weekly meeting for compliance and updates.
- F. Work shall immediately begin on site surveys to determine the existing infrastructure and determining placement of new system electronics. The Contractor shall be responsible for moving, relocating, and reconnecting any and all existing equipment required for the installation of the new systems.
- G. After work plan and system approval by the Engineer the Contractor can begin work on infrastructure work that does not impede users.
- H. The Contractor shall be responsible for working with the Owner's Information Technology Staff and Administrators.

## **END OF SECTION**

### **VIDEO**

#### **PART 1 - GENERAL**

- 1. SECTION INCLUDES
  - A. Parts and equipment required for viewing video signals.
- 2. SYSTEM DESCRIPTION
  - A. Each projector shall be installed so users can easily view the picture being presented.
  - B. The video systems shall be installed to provide the easiest user interface possible.
- 3. COORDINATION
  - A. Coordinate work to completed by project ending date.
  - B. Coordinate the location of all monitors, televisions, and projectors with the Owner and other trades prior to final installation.
  - C. Coordinate with other Contractors who are doing work in the ceiling space. Coordinate the installation of all cables, projectors, monitors, etc., with the locations of other services.

#### **PART 2 - GENERAL**

- 1. MANUFACTURERS
  - A. Approved vendors for video projectors are:
    - 1. Epson
  - B. VIDEO PROJECTORS
    - 1. Epson EB-730U projectors have already been purchased and will be provided.

2. Epson EB-730U projectors have already been installed in the "Old" Gym..

### C. VIDEO MOUNTS (SUPPORTS)

1. All supports for LCD panels, Projectors and monitors shall be appropriately sized and chosen for the exact model display to be supported.
2. Contractor shall match the weight of the display to the recommended weight rating of the support.
3. Contractor shall review the location where the support is to be mounted. Match the surface to which the display is to be mounted with the best attachment hardware available for the support.
4. Mounts - Contractor shall submit each support for review by the Owner and Engineer prior to installation.
5. Install custom length down pipe and attach to projector mount if necessary.
6. Projector will need to be protected within a cage for the two gymnasiums in order to prevent ball strikes.
7. Existing "Chicken-Wire" cage in the "Old" Gym will need to be replaced.
8. The mount and pipe shall allow cables to be routed through each.

## 2. VIDEO EQUIPMENT

### A. AppleTV

1. Provided by owner for all locations.
2. Where applicable, the AppleTV is to be moved from the projector and housed within A/V Rack at each location.
3. Audio/Video (HDMI) will need be to be connected and routed accordingly.

## 3. EXTENDER/TRANSCIEVERS/HD CONNECTIVITY

- A. A system shall be installed where a lift will not be required to reach the projector's location to reset devices.
- B. All critical components are to be housed within the rack and readily accessible.

## 4. A/V SWITCH

- A. An A/V Switch will need to be installed to handle at least two HDMI Inputs, typically a laptop and the AppleTV.
- B. Audio de-embedding needs to occur within rack

## 5. CONTROLS

- A. An Aurora touchscreen control panel shall be installed.
  1. Touchscreen control system will be fully configurable to control the owner's devices as the system is equipped.
- B. Contractor shall provide all connectivity and programming.
  1. Work with the owner to determine their required layout and button arrangement.
  2. Configure the system, test, and demonstrate.
  3. Make any requested changes from the owner.
- C. Touchscreen controller shall consist of and meet or exceed the following:
  1. Color touchscreen
  2. Date/Time display
  3. Provide all cables between devices for control.

4. Any cables in ceiling shall be plenum rated.
5. Password protected

## 6. INPUTS

- A. Wall mounted HDMI and 3.5mm inputs will be needed in each location.
- B. Rooms already containing these inputs should have their connectors replaced, tested, and verified.
- C. A 25' HDMI cable for each space will be provided.

## 7. MICROPHONES

- A. Each of the three locations will need one handheld microphone (3 total) and one bodypack/lavaliere microphone (3 total)
- B. (3) QLXD124/85 will be utilized to accommodate the handheld and badpack/lavaliere microphones.

## 8. SPEAKERS

- A. Shall be a ceiling mounted pendant 8" 2-Way Speaker.
- B. Preferred make is Atlas.

# PART 3 - EXECUTION

## 1. EXAMINATION

- A. Location of the screens and equipment shall be approved by the owner throughout the building prior to installation.
- B. Locate all equipment to be installed and make certain that space is available for maintenance and service during the life of the system.
- C. If any changes are required, the Contractor shall submit a proposed layout to the Engineer for approval prior to installation.

## 2. PREPARATION

- A. Ensure the wall where a screen will be mounted can support the weight of the mount and the display.
- B. Coordinate with the Lighting Contractor on location of all displays. Ensure lighting will not impede the viewing of the image.

## 3. PROJECTOR AND SCREEN

- A. Projector and screen:
  1. Mount the projector Gymnasium ironwork grid.
  2. Connect the power and video cable to the projector.
  3. West Gym - Screen is to painted onto the NorthWest wall with Goo Systems Global "Screen Goo", provided. Dimensions should match the screen size in the "Old" gymnasium.
  4. The West Gym projector will be aligned to optimally fill the painted screen.

## 4. INSTALLATION OF AV EQUIPMENT

- A. A/V switcher shall be mounted inside the rack.
    - 1. The Contractor shall make sure all cables attaching to the switcher are labeled with the item from which they route. The Contractor shall provide and install a permanent label for each of the buttons on the front of the switcher to show which input is connected to which button.
    - 2. The switcher shall be fully connected and interfaced with each input and output device. All connections shall be made, and tested prior to turnover to the Owner.
    - 3. All settings on the switcher shall be set to provide the highest usable video and audio output signal.
    - 4. The Contractor shall test each input and each output for proper configuration.
    - 5. All aspects of the systems shall be tested prior to turnover to the Owner.
  
  - B. HDMI to UTP
    - 1. Setup the device to pass all HDMI Signals.
    - 2. Install all patch cables required for connectivity.
    - 3. Shall be shielded cable where manufacturer of system requires shielded cable.
    - 4. Plenum rated as needed.
5. INSTALLATION OF CONTROLS
- A. Control Panel.
    - 1. The control panel shall be installed inside the rack.
    - 2. Meet with the owner to determine the sequence of how the control panel should work and what it shall control.
    - 3. Install all cabling and sensors/devices required to transmit the signal and control the devices that are to be connected.
    - 4. Custom configure the control panel to match other school systems.
  
  - B. Rack.
    - 1. Only the West ("New") gym will require a new rack to be mounted inside the storage room.
    - 2. Rack size should match what is currently installed in the "Old" gym. ( 16U)
6. DEMO
- A. The "Old" Gym will need to have it existing speakers and conduit removed.
7. AUDIO DUCKING
- A. Prefer a system that can provide audio "ducking" while audio is playing so the presenter can be heard.

## **SUBMITTALS**

### **PART 1 - GENERAL**

- 1. SECTION INCLUDES
  - A. This section provides the Contractor with requirements in regard to Product Data, Shop Drawings, and Product Samples collectively referred to as "Submittals".
  
  - B. The requirements of this section deals only with those submittals that are required to be provided by the chosen contractor prior to beginning the work. No submittals in this section are required to be provided with the Bid Response.
  
  - C. The requirements contained herein should be considered bound and apply to all specification sections per this contract.

## 2. SUBMITTALS

- A. The contractor shall provide material submittals to the Construction Manager or directly to the engineer, whomever is managing the project.
- B. Prior to beginning work, the chosen Contractor shall provide two sets of material submittals. All paper submittals shall be bound in a three-ring binder. The binder shall be clearly marked with the project name and number, and additionally marked as "submittals."

## PART 2 - PRODUCTS

### 1. PRODUCT DATA SHEETS

- A. Product data sheets shall consist of the manufacturers detailed specification sheets or "cut- sheets" for each product that is to be installed by the contractor or any subcontractors.
- B. Product data sheets shall minimally include, but shall not be limited to:
  1. Part Number
  2. Manufacturer
  3. Description of the product
  4. Physical dimensions and characteristics of the product
  5. Picture or manufacturers drawing of the item, where applicable
  6. Electrical characteristics of the product including heat-load for active electronics.
  7. Optical characteristics of the product for Fiber-Optic equipment and cable.
- C. Provide product data sheets for all equipment and cabling that is to be installed by the contractor

### 2. SHOP DRAWING

- A. Shop Drawings shall consist of detailed drawings showing actual connectivity and cable types for the systems noted below:
  1. AV Classroom Systems
  2. AV Systems
- B. Shop drawings shall be provided for systems the Contractor intends to connect "differently" than what is shown on the contract drawings or where no connectivity is shown.

### 3. PRODUCT SAMPLES

- A. Product Samples shall consist of a sample of the actual product that is to be installed.
- B. Samples shall be tagged with the part number and specification section to which it pertains.
- C. Product Samples shall be provided for the following.
  1. None at this time.

## PART 3 - EXECUTION

### 1. DOCUMENTS

- A. The Contractor shall provide all submittals to the Construction Manager or the Engineer prior to beginning installation.
- B. The Contractor shall provide two sets of Shop Drawings.
  1. Shop drawings shall be marked for the specification section of the bid documents to which they pertain.
  2. All shop drawings are required to be drawn on the building background shall be provided on full-size drawings the same scale as those in the bid documents.

3. All lines on the shop drawings shall be highlighted or completed in ink that is not the same color as that provided in the bid documents.
  4. The contractor shall provide a drawing legend detailing all symbols used in creation of the shop drawings.
- C. The Contractor shall provide one of each product sample required to be submitted.
1. Provide a cutsheet with each product sample detailing the specifics of the product and what it is proposed to be used for.
2. SUBMITTAL REQUIREMENTS
- A. Submittals shall be provided for approval prior to installation of the work.
  - B. Any equipment installed that does not have an approved submittal associated with it can and will be removed from the project and replaced with other equipment as defined by the Engineer. All replacement costs shall be the responsibility of the Contractor.
  - C. It shall be the responsibility of the Contractor to provide the submittals for review in sufficient time so as to not delay the installation.

## **LABELING**

### **PART 1 - GENERAL**

1. WORK INCLUDED
  - A. This section provides direction on labeling of cables and devices.

### **PART 2 - PRODUCTS**

1. CABLE LABELING PRODUCTS INTERIOR
  - A. Laser printed, self-adhesive wrap around labels for CAT- 6, access control and audio/visual cabling user cables shall be Brady LAT-18-361 or equivalent.

### **PART 3 - EXECUTION**

1. PREPARATION
  - A. Terminate all cables in proper color code sequence.
  - B. Clean any surfaces where an adhesive label is to be installed.
2. GENERAL LABELING
  - A. All cables shall be labeled.
  - B. All labels shall be installed to more easily identify the cables and ports on all panels. If there are any questions regarding labeling, contact the Director of Information Technology prior to installation.
3. AUDIO/VIDEO LABELING
  - A. Each control, audio, video, speaker, and microphone cable shall be labeled with a self- laminating, laser printed label at each end. This includes all interconnection cables.
    1. The cables shall be labeled for the equipment that the cable connects. Consult with



Owner prior to labeling.

2. All speaker cables shall be marked according to their location. Consult with the owner prior to labeling.
3. The cable label shall be similar to the label below:

SPKR-1
SPKR-1
SPKR-1

- a. The above label details this cable is the first speaker cable for the audio system. The same rationale will be used for speakers, video cables, etc. The Contractor shall mark all as-built drawings to show the microphone location or speaker the label refers to. There shall be continuity between all labels and as-built prints.

- B. Once the system is set up and running many people will be using the system. The Contractor shall label each audio and video component for what it does.
  1. An example, the mixer shall detail what microphones they mix. Do this by labeling each gain control dial on the mixer. The mixer would be labeled as "Handheld Microphone-1" or something similar..
  2. For the description of all the components, consult with the Owner.
  3. All labels shall be laser printed.

## TESTING

### PART 1 - GENERAL

1. WORK INCLUDED
  - A. This section provides direction on testing of cabling, labeling, and administration of the drawings and information.
2. SYSTEM DESCRIPTION
  - A. All cables installed shall be tested and labeled.

### PART 2 - EXECUTION

1. EXAMINATION
  - A. All cables and panels where cables terminate shall be labeled with the cable label or name of each individual cable. Identify how each cable and panel will be labeled.
2. PREPARATION
  - A. Terminate all cables in proper color code sequence.
  - B. Clean any surfaces where an adhesive label is to be installed.

### 3. AUDIO AND VIDEO SYSTEMS COMMISSIONING

- A. For each system demonstrated, the Contractor shall show each input is seen/heard through the output as required.
  - 1. Show that volume controls for each system actually do control the volume.
  - 2. Identify each piece of equipment and show the Owner its use.
  - 3. Test each video input and display audio/video signal throughout the entire system.
  - 4. Demonstrate each video input and display audio/video signal throughout the entire system.
  - 5. Demonstrate that each wired connection to the overhead projector works and demonstrate how to switch between inputs with the panel, remote control, or otherwise.
  - 6. If a video switcher is installed, show its operation, and all its switching capabilities.

### 4. Audio/Video System Substantial Completion.

- A. The Audio/Video system shall be considered substantially complete when:
  - 1. All systems have been shown to be connected and work as required
  - 2. All labeling is installed and systems are balanced.
  - 3. As-built drawings have been updated to reflect any changes in the connectivity.
  - 4. All manufacturer literature has been turned over to the Owner.
  - 5. Training has been completed.
  - 6. After substantial completion the systems shall be in good working order for a period of 30 days.
  - 7. In the event that the system or systems should fail or not work as required during the 30-day period, the Contractor shall be on site the same day to fix and configure the system to make it work as designed.
  - 8. A new 30-day period will begin as soon as the system has been demonstrated to be in good working order and the engineer acknowledges in writing that the system has been fixed and is again considered substantially complete.
  - 9. Once the system has been considered Substantially Complete and has been working for 30 consecutive days with no interruption in service, the system shall be thought of as "Finally Complete."
  - 10. fWarranty shall begin immediately after the system is deemed Finally Complete.

## TRAINING

### PART 1 - GENERAL

#### 1. SECTION INCLUDES

- A. This section includes directions for the Contractor regarding system cutover and training.

#### 2. SYSTEM DESCRIPTION

- A. The Contractor shall provide training on all the installed systems.

### PART 2 - PRODUCTS

Not used.

### PART 3 - EXECUTION

#### 1. GENERAL TRAINING REQUIREMENTS

- A. The Contractor shall provide training on all systems installed or upgraded as part of the contract.

1. Prior to the cutover of the system, the Contractor shall work with the Owner on the training that will be provided. The Owner and the Contractor shall schedule the training at a time beneficial to both.
2. Each system is to have training provided as part of the installation.
3. Each training session shall include:
  - a. An overview of the capabilities of each system and the methods to be employed in utilizing the system.
  - b. Training shall include as-built diagrams of the connectivity, a walk-thru of the system, a demonstration of actual user interface with the system, and directions on its general use.
  - c. This training is only meant to give an overview of each system.
4. For all training, the Contractor shall pay all expenses.

## **WARRANTY**

### **PART 1 - GENERAL**

1. SECTION INCLUDES
  - A. This section includes directions for the Contractor regarding system sign off and warranty.
2. SYSTEM DESCRIPTION
  - A. The project is not complete until all paperwork has been provided.
  - B. The Contractor shall warranty his work and all the products installed for a minimum of one-year from day of Final completion.
  - C. The Contractor and District will sign off on the project completion date. The one-year warranty will begin on the project completion date.
2. COORDINATION
  - A. Coordinate as-built drawings and records with the Engineer and Owner.

### **PART 2 - PRODUCTS**

1. MANUFACTURERS
  - A. Not Used.
2. MATERIALS
  - A. The Contractor shall provide the following to the Owner prior to the issuance of the Notice of Final Completion:
    1. Manuals and pamphlets on all electronic equipment.
    2. All spare parts and cover-plates for all components of the network.
    3. Red lined set of as-built drawings for the entire project.
    4. Manufacturer warranty cards for all components.

### **PART 3 - EXECUTION**

1. EXAMINATION

- A. Contractor shall fully examine all components of the system to make sure all manuals and paperwork are included in the final submittal.

2. PROJECT DELIVERABLES

- A. All manuals and pamphlets shall be separated by equipment type.
- B. All spare parts shall be provided in a box. The Contractor shall detail which component each spare part is for.
  - 1. Spare parts may include, but not limited to: Blank covers for electronics, supports, and mounting hardware.

5. GENERAL WARRANTY

- A. The Contractor shall warranty the installation and all the parts contained therein for a period of not less than one year after the Contractor and District have signed off on the project's completion.
- B. This shall include each and every part, cable or software system provided as part of this project.
  - 1. If any part is broken due to a manufacturing defect or installation defect, the Contractor shall fix and/or replace the broken item at their own expense.
  - 2. If the system "crashes" and goes down and needs configuration to be brought back up, the Contractor shall be liable for any programming or reconfiguration.