

December 11, 2019

Request for Proposal Board Room Audio Video Upgrade

For

**TSD Bid # 9897
Troy School District
4400 Livernois
Troy, MI 48098**

Prepared by

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SCHEDULE OF EVENTS

The following is a projected schedule of events for this project. The schedule may change depending upon the results of the responses and a final schedule will be established prior to contracting with the Contractor.

| EVENT | DATE |
|---|--------------|
| Bid Release | Dec 11, 2019 |
| Mandatory Pre-bid meeting Date and time – 2:00 P.M. | Dec 17, 2019 |
| Final Date and time for Questions - 12:00 P.M. EDT | Jan 7, 2020 |
| Bid Due Date/time – 11:00 A.M. | Jan 14, 2020 |
| Public Opening – Immediately after due date/time | |
| Contract Award | Feb 25, 2020 |
| Project Kickoff – week of | Mar 9, 2020 |
| Project Start Date | Mar 18, 2020 |
| Substantial Completion | Apr 10, 2020 |
| System Training | Apr 14, 2020 |
| Project Completion and Closeout | Apr 17, 2020 |

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BID PROPOSAL FORM

OWNER: Troy School District
Administration Building
4400 Livernois
Troy, Michigan 48098
Attn: Todd Hensley, Purchasing Supervisor

PROJECT: Board room Audio Video Upgrade – Bid # 9897

NAME OF BIDDER: _____

BASE BID:

Lump sum bid for all work specified and shown on the drawings as indicated for base bid in the amount of:

_____ Dollars (\$ _____)

The Bid Proposal amount shall be shown in both words and figures. In the case of discrepancy, the amount shown in words shall govern.

BASE BID: The undersigned, having examined the Bid Documents and examined the conditions affecting the Work/Project, hereby proposes and agrees to furnish all of the labor, materials, and equipment and perform all work necessary to complete the Work/Project as required by the Bid Documents for the stipulated sum identified above and detailed in Supplemental A (Cost Analysis Worksheet). The Bid Documents set forth the terms and conditions upon which the Bidder will provide a "turnkey" solution for the installation and operation of the project for use by the Owner and represents and warrants that the design, operation and functionality of the project are in accordance with the Bid Documents. All prices provided by the Bidder on this Bid Proposal Form must include all cables, connectors, equipment etc. that are necessary to the make the project fully operational for the intent and purpose stated in the Bid Documents

BID SECURITY

Enclosed herewith find (Certified Check)/ (Bid Bond) in the amount of \$_____ being five percent (5%) of the maximum Bid Proposal herein, made payable to Troy School District or naming Troy School District as obligee. The proceeds of which are to remain the property of Troy School District, if the Bidder does not, within ten (10) days after notice of the acceptance of Bid Proposal, enter into the Contract.

TAXES

Please identify the amount, if any, of this Bid Proposal that has been attributed to sales or use tax. If an amount has been attributed to such tax, please identify which components of the Bid to which the tax has been attributed.

SUBCONTRACTORS

Bidders must provide attach complete list of proposed subcontractors (one per discipline), if any are proposed to be utilized on the project. Listing two or more subcontractors per discipline will be grounds for disqualification.

EXCEPTIONS

Any Exceptions to the terms and conditions contained in the RFP or contract are identified below:

ADDENDA

This RFP incorporates the following Addenda:

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

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

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

BID PROPOSAL FORM SUPPLEMENTS:

The following Bid Form Proposal Supplements are attached hereto and are considered an integral part of this Bid Proposal Form:

- SUPPLEMENTAL A – Cost Analysis Worksheet
- SUPPLEMENTAL B – Unit Pricing
- SUPPLEMENTAL C – Mandatory Alternates
- SUPPLEMENTAL D – Voluntary Alternates
- SUPPLEMENTAL E – Familial Disclosure Affidavit
- SUPPLEMENTAL F – Iran Economic Sanctions Act Compliance Affidavit

BIDDER NAME: _____

ADDRESS: _____

DATE: _____

TELEPHONE: _____

EMAIL ADDRESS: _____

If award is made to our firm based upon our Bid Proposal, we agree to enter into the form of Contract with the School District in accordance with this Request for Proposal, the contract and our Bid Proposal.

My signature certifies that the Bid Proposal as submitted complies with all terms and conditions as set forth in this Request for Proposal, unless specifically enumerated as an exception as part of this Bid Proposal Form.

I hereby certify that I am authorized to sign as a Representative for the Firm:

(Printed Name)

(Title)

(Authorized Signature)

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COST ANALYSIS WORKSHEET

Note this form must be returned with bid submission, filled out completely and accurately or the bidder may be disqualified from consideration.

OWNER: Troy School District
Administration Building
4400 Livernois
Troy, Michigan 48098
Attn: Todd Hensley, Purchasing Supervisor

BIDDER: _____

ADDRESS: _____

BASE BID BREAKDOWN

| | COMPONENT | Cost |
|-----------------------|------------------------------|-------------|
| Board room AV upgrade | Material | |
| | Labor | |
| | Sub Total | |
| | | |
| | | |
| | Performance and Payment Bond | |
| | Proposal Total | |

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UNIT PRICING

All bid proposals shall include a detailed Bill of Materials that notes each item, part number, and installed unit price. Provide this Bill of Materials, attached to and submitted with the Bid Proposal. Bill of Materials pricing will be used for price revisions prior to award.

Provide installed unit pricing, which shall be considered firm pricing during the contract period and not subject to change, will be used to determine costs for additions and deletions during the contract period (after award). All unit pricing shall include all labor, materials, licenses, software, fees etc. The Owner reserves the right to adjust any or all quantities at any time.

| | | |
|-----|--|----|
| UP1 | | \$ |
| UP2 | | \$ |
| UP3 | | \$ |
| UP4 | | \$ |

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ALTERNATES

Mandatory Alternate 1:

Add/Deduct _____ Dollars (\$) _____)

Mandatory Alternate 2:

Add/Deduct _____ Dollars (\$) _____)

Mandatory Alternate 3:

Add/Deduct _____ Dollars (\$) _____)

Mandatory Alternate 4:

Add/Deduct _____ Dollars (\$) _____)

Mandatory Alternate 5:

Add/Deduct _____ Dollars (\$) _____)

FAMILIAL DISCLOSURE AFFIDAVIT

The undersigned, the owner or authorized officer of _____ (the "Bidder"), pursuant to the familial disclosure requirement provided in the Troy School District (the "School District") Request For Proposals, hereby represents and warrants that, except as provided below, no familial relationships exist between the owner or any employee of the Bidder, and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

By:

Title:

STATE OF MICHIGAN
COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 2019, by
_____.

, Notary Public

_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of the below named applicant (the "Applicant"), pursuant to the compliance certification requirement provided in the Troy School District (the "School District") Request For Proposals for Data Network and Wireless Upgrades (the "RFP"), hereby certifies, represents and warrants that the Applicant (including its officers, directors and employees) is not an "Iran linked business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event Applicant is awarded a contract as a result of the aforementioned RFP, the Applicant will not become an "Iran linked business" at any time during the course of performing the Work or any services under the contract.

The Applicant further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

APPLICANT:

Name of Applicant

By:

Title:

Date:

STATE OF Michigan
COUNTY OF _____)

This instrument was acknowledged before me on the ____ day of _____, _____, by _____.

_____, Notary Public _____ County,

My Commission Expires: _____

Acting in the County of: _____

BIDDING REQUIREMENTS & INSTRUCTION TO BIDDERS

PART 1 - GENERAL

- 1.1 The Troy School District is seeking bids and proposals for a Board Room Audio Video Upgrades (hereafter “AV system”).
- 1.2 **Bid documents may be obtained from the purchasing page (under Departments, Business Services) of the District’s web site at www.troy.k12.mi.us.**
- 1.3 **Due on or before date and time indicated on the schedule of events (“Due Date”),** the Owner will receive bid proposals for the project. The Owner will not consider or accept a bid proposal received after the due date for bid proposal submission. All bid proposals received after the due date will be returned by making them available to the respective Bidder, unopened, for said Bidder to pick-up at their sole cost and expense. Bid proposals shall be submitted to:

Troy School District
Services Building
4420 Livernois
Troy, Michigan 48098
Attn: Todd Hensley, Purchasing Supervisor

1.4 PROPOSALS/QUOTES

- A. Bidders must submit a complete set of all bid documents as indicated herein. Proposals or bids that are incomplete or missing required documents will not be accepted. Proposals must consist of the original forms in the original format to be accepted.
- B. Three (3) “hard” copies and two (2) “soft” (electronic) copies on a USB “flash” drive of the proposals is to be submitted in sealed packaging, clearly marked: “BOARD ROOM AUDIO VIDEO UPGRADE” and shall be identified with the Bidder’s name and address and the date and time of the bid proposal opening. The Owner is not responsible for any postal or delivery delays. No email, facsimile or other electronic bid proposals will be accepted.
- C. Proposals will be opened publicly on the time and date specified in Schedule of Events at the Owner’s facility.

1.5 PROPOSAL FORMAT

- A. The Bid response shall be structured as follows in both the hard and electronic copies:
 1. Section 1 – Proposal Form, Submittal Letter, Executive Summary
 2. Section 2 – System/Solution Proposal, Bid Bond and Pricing
 3. Section 3 - Narratives, System Description, Information, and Brochures

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- a. Comprehensive Narrative/System Description of the proposed System/Solution
 - b. Information, Diagrams or Schematics supporting the System/Solution Narrative
 - c. Bill of Material and installed pricing, Catalog Cut sheets, Brochures, Equipment Configuration
4. Section 3 - Resume of Qualification, References
- a. Bidder's qualifications (Company and proposed Staff)
 - 1) Company's Level of Manufacturer's Certification (Included in cover letter)
 - b. Resume of Qualification including:
 - 1) Three (3) verifiable references demonstrating direct experience on recent systems of similar type and size, including contact names and phone numbers of projects that qualify
 - 2) Technical resumes of experience for the vendor's Project Manager and on-site installation supervisor who will be assigned to this project.
 - 3) A list of subcontractors and their training and certification
5. Section 4 – Proposed Contracts
- a. Maintenance Contract and pricing for consideration
6. Section 5 – Alternate System/Solution Proposal (If Applicable)
- a. Alternate solutions will be accepted provided the base bid requirements are met first. Alternate proposals must meet all base bid performance requirements to be accepted. The Owner may review alternate solutions but is under no obligation to consider or award them regardless of cost.
 - b. Comprehensive Narrative/System Description of the proposed Alternate System/Solution
 - c. Information, Diagrams or Schematics supporting the proposed Alternate System/Solution Narrative
 - d. Bill of Material and installed pricing, Catalog Cut sheets, Brochures, Equipment Configuration
- B. The “hard copy” Bids shall be submitted on 8 1/2" by 11" paper, single sided, single spaced using 10 to 12-point print, in 3 ring binders, clearly labeled to show the Bidder's name.
- C. The “soft copy” Bid shall be in the same structure as the “hard copy” Bids, bound in a .pdf file, submitted on an USB drive with the hard copies.
1. The electronic copy must be formatted in the same manner as the hard copy format, with separate PDFs per section, and contain an exact copy of the Hard Copy.

1.6 SECURITY

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- A. The Bid Proposal shall be accompanied by a Bid Security of a certified check or cashier's check payable to the Owner or by a satisfactory Bid Bond Entity naming the Owner as the obligee and executed by the Bidder and a surety company authorized to do business in the State of Michigan, in an amount identified in the Instructions to Bidders. The check or amount of Bid Bond shall be forfeited to the Owner upon failure of the Contractor to enter into the Contract. The Contractor's Bid security will be retained until the Contractor has signed the contract and has furnished the required Certificates of Insurance and other required Bonds and documents required by the RFP. Bonds signed by an Attorney-In-Fact must be accompanied by a certified and effectively dated copy of their Power of Attorney.
- B. The Owner reserves the right to retain the Bid security of all Bidders until the Contractor enters into the contract or until ninety (90) days after bid opening, whichever is later. If the Contractor refuses to enter into the Contract, the Owner may retain their Bid Security as liquidated damages but not as a penalty.

1.7 PERFORMANCE AND LABOR AND MATERIAL PAYMENT BONDS

- A. At or prior to delivery of the signed Contract, the Owner will require the Contractor to secure and post a Labor and Material Payment Bond and a Performance Bond including bonding for all subcontractors, each in the amount of 100% of the Contract Sum including bonding for all subcontractors. Surety shall be a company incorporated in the United States and must appear on the U.S. Treasury Departments approved surety list and be adaptable to the Owner. The Contractor shall obtain such bonds in a manner consistent with Michigan law.

1.8 FAMILIAL DISCLOSURE AFFIDAVIT

- A. Each bid proposal must be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the bidder and any member of the board of education or the superintendent of troy school district. The board of education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

1.9 AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS

- A. Each bid proposal must be accompanied by the Iran economic sanctions affidavit of compliance in compliance with Michigan public act no. 517 of 2012. The board of education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

1.10 RESERVATION OF RIGHTS

- A. The Owner reserves the right, in its sole and absolute discretion (for this provision and all other provisions contained in this RFP), to accept or reject, in whole or in part, any or all bid proposal with or without cause, to waive any irregularities or informalities in this RFP process or any bid proposal, and to award the contract to

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other than the low bidder, when in the opinion of the Owner, such action will best serve the Owner's interests.

1.11 WITHDRAWAL OF BID PROPOSALS/QUOTES

- A. Bid proposals submitted shall not be withdrawn and shall be irrevocable for a minimum period of ninety (90) calendar days following the due date for receipt of bid proposals set forth above.

1.12 REQUESTS FOR CLARIFICATION

- A. Bidders may request that the Owner clarify information contained in this RFP. All such requests must be made in writing via email to Mr. Eric Hesel, Convergent Technology Partners, at ehesel@ctpartners.net. Requests for clarifications and inquiries may only be made via email.

1.13 CONTRACT

- A. The form of contract that the successful bidder ("contractor") will be expected to sign with troy school district will be available to all bidders on the bidpro web site at www.ctpartners.net/rfp.

1.14 BOARD OF EDUCATION APPROVAL

- A. Implementation of the proposed project is fully contingent on the approval of the Troy School District Board of Education.

1.15 RESTRICTION ON COMMUNICATION

- A. From the issue date of this RFP until a Contractor is selected and the contract is awarded a prospective Contractor shall not communicate about the subject of this RFP or a Contractor's bid proposal with the Owner, its Board of Education, or any individual member, administrators, faculty, staff, students, or employees, except for additional requests for clarification in accordance with the paragraph above.

1.16 RELEASE OF CLAIMS

- A. Each Bidder by submitting its Proposal releases the Owner from any and all claims arising out of, and related to, this RFP process and selection of a Contractor.

1.17 PROPOSAL COST

- A. Respondents of this RFP are responsible for any and all costs incurred by them or others acting on their behalf in preparing or submitting a bid proposal, or otherwise responding to this RFP, or any negotiations incidental to its bid proposal or this RFP.

1.18 COLLUSIVE BIDDING

- A. All Bidders certify that its bid proposal is made without any previous understanding, agreement or connection with any person, firm or corporation making a bid proposal for the same project and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.

1.19 INSURANCE REQUIREMENTS

- A. The contractor, and any and all of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted doing business in the state of Michigan and acceptable to the Owner. The requirements below should not be interpreted to limit the liability of the contractor:
1. Workers' compensation insurance, including employers' liability coverage, in accordance with all applicable statutes of the state of Michigan.
 2. Commercial general liability insurance on an "occurrence basis" with limits of liability not less than \$2,000,000 per occurrence and aggregate. Coverage shall include, but not limited to, the following: (a) contractual liability; (b) products and completed operations; (c) independent contractors' coverage; (d) broad form general liability extensions or equivalent; (e) explosion, collapse, and underground, if applicable.
 3. Automobile liability, including Michigan no-fault coverages, with limits of liability not less than \$1,000,000 per occurrence combined single limit for bodily injury, and property damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.
 4. Additional insured: policy(ies) and coverages as described above, excluding workers' compensation insurance, shall include an endorsement stating the following shall be additional insureds: The Owner, all elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed by naming the Owner as additional insured, coverage afforded is primary and any other insurance the Owner may have in effect shall be considered secondary and/or excess.
- B. Proof of insurance coverage: the contractor shall provide the Owner at the time the contracts are returned by him/her for execution a certificate of insurance as well as the required endorsements. In lieu of required endorsements, a copy of the policy sections, where coverage is provided for additional insured and cancellation notice, may be acceptable. Copies of all policies mentioned above shall be furnished, if so requested.

1.20 DEFINITIONS

- A. Bid Documents are defined as the Instructions to Bidders, Schedule of Events, this RFP, including any Supplemental forms, Attachments, Appendices, Specifications, Drawings and, Other Information as noted herein (Narratives, diagrams, etc.), Addenda and the Contract.

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- B. Addenda are written or graphic instruments issued prior to the due date of bid proposals which modify or interpret the Bid Documents by additions, deletions, clarifications or corrections. All Addenda issued to Bidders prior to the due date of bid proposals shall become part of the Bid Documents and all bid proposals are to include the Project/Work therein described. Each Bid Proposal submitted shall list all Addenda that have been received prior to the due date of bid proposals.
- C. As used in these Instructions to Bidders, the term "Bid Proposal" means a bid proposal prepared and submitted in response to this RFP.
- D. As used in these Instructions to Bidders, the term "PSC" refers to the Professional Service Contractor and means Convergent Technology Partners and its assigned representative.
- E. Throughout this RFP and Contract, the "Owner" will be used to refer to Troy School District and bidders submitting bid proposals will be referred to as "Bidders" or "Vendors" and a successful Bidder or Vendor will be referred to as a "Contractor".
- F. Throughout this RFP and Contract the Board Room Audio Video Upgrade Project may also be referred to as "AV", "Project", "AV Project" or "AV System".
- G. The Owner's internal business LAN shall be referred to as the "Production Network", whereas the LAN equipment specifically for the board room and board of trustees' use shall be referred to as the "AV Network".

1.21 BIDDER'S REPRESENTATION

- A. Each Bidder, by submitting a Bid Proposal, represents that the Bidder has read and understands the Bid Documents and is familiar with the local conditions under which the project is to be performed. Bidders will be held to have compared the Sites with Bid Documents and have satisfied themselves to all conditions affecting the execution of the Work/Project.

1.22 EXAMINATION OF BID DOCUMENTS

- A. A mandatory bidder's conference will be held December 17th at 2:00 P.M. for answering questions from the Bidders and reviewing the site and existing conditions/system. The location of the Bidder's conference is:

Troy School District
Services Building
4420 Livernois
Troy, Michigan 48098

- B. Before submitting a Bid Proposal, each Bidder shall examine the RFP documents carefully and shall read the Specifications and the Bid Documents. Each Bidder shall gather complete information prior to bidding as to existing conditions and limitations under which the Work/Project is to be performed and shall include in its Bid Proposal a sum to cover the cost of items necessary to perform the Work/Project as set forth in the Bid Documents.

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- C. No allowance or additional fees will be made to a Bidder because of lack of such examination or knowledge. The submission of a Bid Proposal will be considered as conclusive evidence that the Bidder has made such examination. An on-site-inspection of the Sites during the Bidder's Conference will be for all Bidders and their subcontractors, if any. Vendors may use subcontractors in connection with the Work/Project performed under this RFP provided the Owner has approved the subcontractors. In using subcontractors, the Vendor agrees to be responsible for all their acts and omissions to the same extent as if the subcontractors were employees of the Vendor.

1.23 REQUESTS FOR CLARIFICATION

- A. Bidders may request that the Owner clarify information contained in this RFP. All such requests must be made in writing via email to Eric Helsel, Convergent Technology Partners, at ehelsel@ctpartners.net. Only a written interpretation or correction by Addendum shall be binding on Bidders. No explanations or interpretations requested or made orally will be considered binding. All questions will be responded to in writing. Requests for Clarifications and inquiries may only be made via email – **please note in the subject line the RFP name**. The deadline for all Requests for Clarification is per the Schedule of Events. The aggregated answers to all Requests for Clarification will be provided in an addendum to the RFP which will be issued and posted on the District's web site at www.troy.k12.mi.us no less than three (3) business days prior to the bid opening date for all potential proposers to view.

1.24 BIDDING PROCEDURES

- A. All Bids Proposal must be submitted on the Bid Proposal Forms provided as part of the Bid Documents and in accordance with the Advertisement to Bid and Instructions to Bidders. Bidders must provide a complete list of proposed subcontractors (one per discipline) as indicated on the Bid Forms. Listing two or more subcontractors per discipline will be grounds for disqualification.
- B. All Bidders must provide a proposal for the Base Bid that meets or exceeds the specifications set forth in this RFP. However, all Bidders may suggest Alternates if it is felt that the alternate proposal better suits the intent of this RFP. Any Alternate must be listed as such with separate pricing sheets. Any variance of the feature/functionality of the Base Bid must be identified in any Alternates proposed.
- C. Prior to the due date for bid proposals, all Addenda will be available for inspection wherever the Bid Documents are kept available for that purpose. No Addendum will be issued later than three (3) days prior to the due date for bid proposals. It is each Bidders responsibility to ascertain prior to submitting a Bid Proposal that he/she has received all Addenda issued and shall acknowledge their receipt in their Bid Proposal Form.
- D. All Bids must be signed as follows:
 - 1. Corporations: Signature of an officer of the firm who is authorized to bind the corporation.

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2. Partnerships: Signature of one partner who is authorized to bind the firm and all of its Partners.
 3. Bids submitted by Joint Ventures shall be signed by one of the Joint Ventures and shall be accompanied by a certified copy of the Power of Attorney authorizing the individual signing to bind all the Joint Ventures. If a certified copy of the Joint Venture's certificate submitted with the Bid Proposal indicates that all Joint Ventures have signed, no authorization is required.
 4. Individuals signing on own behalf: No authorization is required.
 5. Individual signing on behalf of another: Power of Attorney or comparable evidence of authority shall accompany Bid.
- E. Bid proposals shall be prepared on unaltered Bid Forms which are a part of this RFP. Beyond listing of exceptions, bidders shall make no additional stipulations on the Bid Form nor qualify the Bid Proposal in any other manner. Unauthorized conditions, limitations, or provisions attached to the Bid Proposal will be cause for rejection of the Bid Proposal. If alterations by erasure or interlineations are made for any reason, explain over such erasure or interlineations with a signed statement from the Bidder. No additional charges, other than those listed on the Bid Proposal Form and other Bid submissions, shall be made. Prices quoted will include verification/coordination of order, all costs for shipping, delivery to all Sites, insurance, payment and performance bonds, unpacking, setup, installation, operation, testing, cleanup, training and all other requirements contained in the bid documents.
- F. Bids shall be submitted in a sealed envelope. Identified on the face of the envelope:
1. Project name
 2. Name and address of Bidder
 3. Notation "Board room Audio Video Upgrade Bid #9897"
- G. No responsibility shall attach to the PSC, the Owner, or the authorized representatives of either one, for the premature opening of any Bid Proposal which is not properly addressed, delivered and/or identified. In such event, that Bid Proposal will not be considered, and the Bidder will be automatically disqualified from consideration.
- H. Negligence in preparation, improper preparation, errors in and/or omissions in the Bid Proposal shall not relieve the Bidder from fulfillment of all applicable obligations and requirements of contained in the Bid Documents.
- I. The Owner or PSC in making copies available of the Bid Documents to Bidders do so only for the purpose of obtaining bid proposals on the project and do not confer a license or grant of use to a Bidder for any other purpose.
- J. All Bidders must complete, sign and return the attached "FAMILIAL DISCLOSURE AFFIDAVIT" and "Iran Sanctions Affidavit" with their Bid Proposal.

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- K. Bidders must include a Bill of Material (BOM), along with installed line item pricing for all components proposed, including maintenance and support, with the total listed where indicated in the Bid Proposal Forms. Failure to provide the BOM with line item pricing may result in disqualification of the Bid proposal.
- L. The Owner considers this RFP legally binding and will require that this Request for Proposal and the Bid Proposal be incorporated by reference into any subsequent Contract between the Contractor and the Owner. It should be understood by the Bidder that this means that the Owner expects the Bidder to satisfy all requirements and specifications contained in the RFP. Any exceptions to the RFP must be explicitly noted in the Bid Proposal. Lack of listing all exceptions will be considered acceptance of all specifications as presented in this RFP.

1.25 SUBSTITUTIONS

- A. Each Bid Proposal shall be based upon equipment described in the Bid Documents.
- B. In addition to the Base Bid, the submission of voluntary alternates is acceptable. If a voluntary alternate is submitted for consideration, it shall be expressed on the Bid Form as an "add" or "deduct" amount from the Base Bid. If a voluntary alternate is submitted, the Bidder shall also submit enough information in the form of drawings, specifications, and a complete description of the proposed substitute, the cost savings or advantages. Additionally, provide the name of the material or equipment for which it is substituted, drawings, cuts, performance and test data and any other data or information necessary for a complete evaluation, enough for analysis of the alternate. The Owner reserves the right to unilaterally accept or reject, in whole or in part, any voluntary alternates.

1.26 CONSIDERATION OF BIDS

- A. The Bidder acknowledges the right of the Owner to accept or reject any or all Bid proposals, in whole or in part, with or without cause, to waive any irregularities or informalities in this RFP process or any Bid Proposal, and to award the contract to other than the low bidder. In addition, the Bidder recognizes the right of the Owner to reject a Bid Proposal:
 - 1. If the Bidder fails to furnish any required Bid Security, or to submit the data required by the Bid Documents; or
 - 2. If the Bid Proposal is in any way incomplete (see checklist on bid form) or irregular; or
 - 3. If the Bidder's performance was unsatisfactory under a prior contract for the construction, repair, modification, or demolition of a facility with the Owner, or a contractor in privacy of contract with the Owner, which was funded, directly or indirectly, by the Owner;
- B. The Owner shall have the right to accept alternates in any order or combination and to determine the lowest qualified Bid based on the sum of the base bid and the alternates accepted.

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- C. Once the contract is awarded to the Contractor, the contract is contingent upon Owner's Board approval and the Contractor providing the Owner with all documents required by the RFP prior to commencement of the Work/Project (i.e. Insurance Certificates, etc.). Further, the Owner reserves the unrestricted right to modifying the contract amount by changing the scope of Work/project and/or components. Any such action will be taken before specific work on a building or on a project component has commenced. Contract amount shall be reduced or increased based on the unit pricing values.
- D. Bidders to whom an award of a contract is under consideration shall submit to the Owner upon his/her request a properly executed Contractor's Qualification Statement, AIA Document A305 or other information format specified by the Owner.

1.27 TAXES

- A. Installation services for the tangible personal property purchased by the Owner is not subject to sales taxation. Moreover, the Owner is exempt from taxation on all tangible personal property purchased by the Owner for its use and consumption; however, this exemption would not apply to any materials required under the Bid Documents that are deemed to be a component of a construction/improvement project to the Owner's Sites/Facilities. All prices submitted on the Bid Proposal Form shall be inclusive of all applicable taxes.

1.28 PERMITS AND FEES

- A. All prices submitted on the Bid Proposal Form shall be inclusive of any and all Applicable and/or required permits and fees.

1.29 MICHIGAN RIGHT-TO-KNOW LAW

- A. All Contractors must conform to the provisions of the Michigan Right-To-Know Law, 1986 PA 80, which requires employers to:
 - 1. Develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers, and development and availability of Material Safety Data Sheets.
 - 2. Provide training for employees who work with these chemicals; and
 - 3. Develop a written hazard communications program.
- B. The law also provides for specific employee rights. These include:
 - 1. The right to be notified (by employer or Contractor posting) of the location of Safety Data Sheet (SDS);
 - 2. The right to be notified (by employer or Contractor posting) of new or revised SDS no later than five working days after receipt; and
 - 3. The right to request copies of SDS from their employers or Contractors.

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- C. Provisions of Michigan's Right-to-Know Law may be found in those sections of the Michigan Occupational Safety and Health Act (MIOSHA), which contain Right-to-Know provisions, and the Federal Hazard Community Standard, which is part of the MIOSHA Right-to-Know Law through adoption.

1.30 QUALIFICATIONS

- A. The system Contractor must be a factory-authorized representative or distributor of equipment used in the system(s) bid. Further, this contractor must have a minimum of five years of experience in the specific application of the equipment proposed for these systems.
- B. The contractor shall maintain permanent service facilities within 100 miles of the owner's facility capable of furnishing adequate inspection and service to the system. The facilities shall include a permanent source of factory trained service technicians experienced in servicing the associated system bid and shall provide warranty and manufacturer suggested maintenance service to afford the Owner maximum coverage. The contractor shall also provide a central source of support to guarantee immediate answers to Owner's problems and questions.
 - 1. The Vendor shall maintain at their facility the necessary spare parts in the proper proportion as recommended by the manufacturer to maintain and service the equipment being supplied.
- C. The contractor shall be experienced in all aspects of this work and shall be required to demonstrate direct experience on recent systems of similar type and size. The contractor shall own and maintain tools and equipment necessary for successful installation and testing of the systems bid and have personnel who are trained and certified in the use of such tools and equipment.
- D. The contractor(s) selected for this project must be certified by the Audiovisual and Integrated Experience Association™ (AVIXA – CTS, CTS-D, CTS-I) and other manufacturers as noted herein, adhere to the engineering, installation and testing procedures as established by the manufacturers, AVIXA and applicable standards groups.
 - 1. Indicate level of AVIXA certification in Cover Letter and other manufacturers as applicable.

1.31 WITHDRAWAL OF BIDS

- A. A Bidder may withdraw its Bid Proposal by written request from an authorized Bidder representative, at any time prior to the due date of bid proposals.
- B. No Bidder may withdraw a Bid Proposal for a period of ninety (90) calendar days, following the due date for receipt of bid proposals, and all bid proposals shall be subject to acceptance by the Owner during this ninety (90) day period.

1.32 EXECUTION OF CONTRACT

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- A. The Contractor to whom the contract is awarded shall, within ten (10) calendar days after Notice of Award and receipt of the contract from the Owner, execute and deliver required copies to the Owner.
- B. At or prior to delivery of the executed Contract, the Contractor to whom the contract is awarded shall deliver to the Owner those Certificates of Insurance required by the Bid Documents and such Labor and Materials Payment Bonds and Performance Bond as are required by Owner and any other documents required by this RFP.
- C. **The Owner shall approve the provided Bonds and Certificates of Insurance before the Contractor may proceed with the Work/Project.** Failure or refusal to provide Bonds, Certificates of Insurance or any other documents required by this RFP in a form(s) satisfactory to the Owner shall subject the Contractor to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.

1.33 POST BID INFORMATION

- A. Bid Form(s) shall be submitted as indicated in the Bid Documents. The Bid Form(s) requires all proposed subcontractors for the project to be named; no more than one per discipline.

1.34 TIME OF COMPLETION

- A. The Bidder agrees to complete the Work within the timeframes listed in the Schedule of Events.

1.35 EQUAL OPPORTUNITY

- A. The Contractor and all its subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin.

PART 2 - PRODUCT – NOT USED

PART 3 - EXECUTION

3.1 SITE REQUIREMENTS

- A. No systems will not be taken off-line or removed from service during normal working hours or scheduled board room usage without coordination of the Owner's representative, and the staff of the affected building. Arrangements must be made by the Contractor to coordinate any such activities.
- B. Applicable Codes, Standards, Best Practices, Industry Norms
 - 1. All Work performed on this Project will be installed in accordance with Audiovisual and Integrated Experience Association™ (AVIXA) best practices and standards, the current edition of the National Electrical Code®, the current edition of the BICSI Telecommunications Distribution Methods Manual, the current edition of the BICSI Cabling Installation Manual, the

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latest issue of the ANSI/TIA/EIA Standards as published by Global Engineering Documents as TIA/EIA Commercial Building Telecommunications Standard, and all local codes and ordinances.

2. All ceiling or wall hung equipment (i.e. - Displays) must meet all ADA requirements, in particular: height clearance.

3.2 QUALITY ASSURANCE

A. Project Manager

1. The Contractor will provide a full-time Project Manager who will act as a single point of contact for all activities regarding this Project. The Project Manager must be a management employee and will not be involved in personally performing craft installation Work
2. The Project Manager is required to attend necessary meetings for coordination.
3. The Project Manager will be required to make on-site decisions regarding the scope of the Work and any changes required by the Work.
4. The Project Manager will be totally responsible for all aspects of the Work and shall have the authority to make immediate decisions regarding implementation or Owner approved changes to the Work.

B. Compliance with Laws and Regulations

1. The Contractor performance of the Work shall comply with all applicable federal, state, and local laws, rules, and regulations and Owner policies, procedure, rules and regulations. The Contractor shall give required notices, shall procure necessary governmental licenses and inspections, and shall pay without burden to the Owner, all fees and charges in connection therewith unless specifically provided otherwise. In the event of violation, the Contractor shall pay all fines and penalties; including attorney's fees and other defense costs and expenses in connection therewith.

C. Federal Communications Commission

1. Equipment requiring FCC registration or approval shall have received such approval and shall be appropriately identified.

D. Codes, Standards, and Ordinances

1. All Work shall conform to the latest edition of the National Electrical Code®, Michigan Electrical Code, the Building Code, and all local codes and ordinances, as applicable. ANSI/TIA/EIA-568 and ANSI/TIA/EIA-569 shall be adhered to during all installation activities. Methodologies outlined in the latest edition of the BICSI Telecommunications Distribution Methods Manual shall also be used during all installation activities. Should conflicts exist with the foregoing, the authority having jurisdiction for enforcement will have responsibility for making interpretation. The Contractor is wholly responsible

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to meet or exceed all codes, standards, regulation, manufacturer installation standards and industry best practices.

3.3 SAFETY

- A. The Contractor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the Work. The Contractor shall at all times comply with the regulations set forth by federal, state, and local laws, rules, and regulations concerning "OSHA" and all applicable state labor laws, regulations, and standards. The Contractor shall indemnify and hold harmless the Owner from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) that may be imposed on the Owner because of the Contractor, or its subcontractor, or supplier's failure to comply with the regulations stated herein.

3.4 INSPECTION, ACCEPTANCE, AND TITLE

- A. Inspection and Acceptance will be upon successful installation unless otherwise provided. Title to/or risk of loss or damage to all items shall be the responsibility of the Contractor until acceptance by the Owner, unless loss or damage results from negligence by the Owner. If the materials or services supplied to the Owner are found to be defective or do not conform to the specifications, the Owner reserves the right to cancel the Contract upon written notice to and return products at the Contractor's expense, based upon the terms of the Contract.
 - 1. When the Owner is referred to in this section of the RFP relative to inspections, the Owner has designated the PSC as the party to perform such inspections on behalf of the Owner. Notwithstanding the above, the Owner may also perform such inspections along with the PSC.
- B. The Owner shall at all times have access to the Work wherever it is in preparation or in progress and shall provide proper facilities for such access and for inspection.
- C. The Contractor shall not close up any Work until the Owner or AHJ (if applicable) has inspected the Work. Should the Contractor close up the work prior to inspection by The Owner or AHJ (if applicable), the Contractor shall uncover the Work for inspection at no cost to the Owner, and then recover the Work according to the specifications contained herein. The Contractor shall notify the Owner or AHJ (if applicable) in writing when the Work is ready for inspection. The Owner or AHJ (if applicable) will inspect the Work as expeditiously as possible after receipt of notification from the Contractor.

3.5 STATUS REPORTS, MEETINGS AND COORDINATION

- A. It shall be the Contractor's responsibility to provide the Owner / PSC with written weekly project status reports while actively engaged in craft work and a summary report at the beginning of periods of inactivity between phases or construction delays noting status at that time and expected date of return to work in addition to the requirements listed below. These reports are required and shall include, but not be limited to:

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1. Project completion percentage.
 2. All problems that were encountered.
 3. Any foreseeable problems that may arise.
 4. Work completed during the previous period and work scheduled for the next period.
 5. General status of the project
- B. The Owner / PSC reserves the right to hold additional status meetings on a regular basis with the Contractor's Project Manager.

END OF SECTION

TECHNICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the RFP and Contract, including General and Supplementary Conditions Sections, apply to this Section.
- B. Board Room Floor Plan

1.2 BIDDER QUALIFICATIONS

- A. Bidders shall be manufacturer certified resellers of proposed equipment.
- B. The Bidder shall be a firm which is regularly and professionally engaged in the business of the applications, installation, and testing of the specified technology systems and equipment. The contractor shall demonstrate experience in providing successful systems and equipment within the past 3 years of similar scope and size.
- C. Bidders shall comply with requirements set forth in Section 2, Instructions to Bidders, subsection Qualifications.

1.3 DESCRIPTION - GENERAL

- A. The following is a Request for Proposal (RFP) for a 100% turnkey audio/video multi-media upgrade in the Owner's board room.
- B. The intent is to replace outdated existing audio video system equipment with the latest audio and video technologies to meet both today's needs and be adaptable for the future.
- C. Usability and aesthetics is an important consideration.
- D. As this is a Request for Proposal, alternative designs may be proposed and will also be considered. The intent of the Proposal should be to meet the needs of the Owner as opposed to stringent adherence to equipment or design indicated herein.
- E. The system has been designed and the RFP written with specific manufacturer's equipment called out in certain instances. Where no manufacturer is listed or "equivalent" is listed, propose the best piece of equipment to meet the Owner's requirements and needs.
- F. All proposals must contain a narrative that demonstrates the bidder's understanding of the Owner's needs and how the proposed solution meets these needs. Additionally, include a general overview of how the system operates illustrating the benefits and features of the system proposed. Include graphics, schematics, one-line diagrams, drawings and sketches required to fully articulate the of the proposed solution. This portion of the RFP needs to provide both technical information as well as information in a format that non-technical personnel can easily understand.

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- G. Include with the proposal a minimum of three references of projects completed within the last three years of similar size and scope. Company names, contact names, job title, email addresses and telephone numbers shall be provided. Confirm all reference contact information is valid for any references listed prior to submitting proposal.

1.4 EXISTING

- A. The current system equipment is in the AV control room behind the board room. (See floor plan) Two freestanding cabinets are currently used to house equipment. A Winstead control console houses the control equipment. Both cabinets and console will be reused.
 - 1. Remove and dispose of unused equipment in both cabinets and console. Blank off all openings.
 - a. Coordinate with owner to determine the equipment they'd like to save prior to disposal.
 - 2. The existing audio system will be reused.
- B. The Owner currently uses Crestron touch panels for control of AV components, lights and window treatments in the board room.
- C. Recorded board room activities are saved to removable media for postproduction work in another area.
- D. The board room projector is housed in a space between the board room and the AV control room.

1.5 DESCRIPTION – PERFORMANCE

- A. The Owner generally uses the space for board meetings, but also uses the space for training and other miscellaneous uses that may not need the AV system.
- B. Displays – The two (2) existing wall mounted and one (1) lectern mounted displays will be replaced with 55" 4K HDR displays. They currently each have an associated wall plate input to the system that will be replaced with HDMI local connectivity to each display.
 - 1. Displays will use onboard input switching to use the local inputs v. system content.
 - 2. Displays shall show the system content – Camera, Lectern input, system inputs. The displays will show the same content as the Projector when in full room configuration.
- C. Projector – The existing 4:3 aspect ratio projector will be replaced with a new 4K 16:10 aspect ratio projector.
- D. Network connectivity - the owner will provide connectivity to their network, the Contractor is responsible for all patch cords, etc. to make the connection.
- E. Audio System – the existing audio system (Microphones, DSP, speakers, etc.) shall be reused and connected to the upgraded components and control programming.

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- F. Control – The rack mounted 10” Crestron touch panel will be replaced with new. The owner currently also uses Crestron remotes in the board room which will be replaced with two (2) iPads for in room control with X-Panel. The iPads are owner furnished but two new docking/charging stations shall be provided.
 - 1. OFE iPads will be 9.7” 6th Gen. 32 GB
 - 2. The existing system also controls lighting levels and window treatments in the board room. The programming shall maintain this operation.
- G. Cameras
 - 1. The existing four cameras, and all associated wiring and material, including shelves, mounts, wiring, etc., shall be removed and replaced by new.
 - 2. All camera control equipment is to be replaced by the new control system and associated programming.
 - 3. Camera controls will require presets as well as manual PTZ.
- H. Broadcast – The existing recording deck will be replaced with new.
- I. Control console – The existing camera controls and preview and program monitors will be replaced with new. Console mounted audio monitors will be added.
- J. All unused/replaced equipment will be removed from lectern, cabinet or console for off-site disposal. Coordinate with Owner prior to disposal any equipment they want to keep. All openings in the cabinet and console shall be provided with blank panels with a smooth, black finish. Coordinate blank type for lectern with Owner if required.

1.6 WORK INCLUDED

- A. All labor and material to provide a complete audio video system as specified herein including, but not limited to:
 - 1. All associated work not specifically called out in the RFP which includes but is not limited to, raceways, restoration of damaged finishes, etc.
 - 2. All cables, wiring, patch cords, tie cables, interconnections and other equipment required for 100% turnkey AV solution.
 - 3. Removal of all existing equipment and wiring that will not be reused from the space, and removal of all existing AV equipment and reconfiguration as required in the cabinet(s)/console.
 - a. Includes off-site disposal
 - 4. Control equipment, interfaces and programming
 - 5. Switching, processing and scaling equipment
 - 6. System input devices

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7. System output and display devices
8. System programming, testing, tuning and commissioning
9. Training, Identification and Administration
10. Commissioning and training
11. Cleanup and restoration of facility including ceilings/ceiling tiles
12. Support and Warranty

1.7 SUBMITTALS

- A. Prior to installation, the following will be submitted to the Owner or PSC for approval. No installation shall occur without this prior approval.
 1. Product Data: For each type of product indicated, showing all performance data, heights, weight, power loads, heat loads, input and output quantity and type, etc.
 2. For substitutions of basis of design equipment, include a comparison matrix for each substituted equipment showing the similarities and differences between equipment specified herein and proposed equipment.
 3. Shop Drawings: For supports and seismic restraints for control consoles, equipment cabinets and racks, and components. Include plans, elevations, sections, details, and attachments to other work.
 4. Detail equipment assemblies and indicate dimensions, weights, required clearances, method of field assembly, components, and location and size of each field connection.
 5. Rack arrangements and Wiring Diagrams: For power, signal, and control wiring.
 - a. Identify terminals to facilitate installation, operation, and maintenance.
 - b. Single-line diagram showing interconnection of components.
 6. Cabling diagram showing cable routing and location and detail of provided raceway.
- B. The following will be submitted to the Owner or PSC for information.
 1. Qualification Data: For qualified designer, project manager and installer
- C. Field quality-control reports
- D. Operation and Maintenance Data

1.8 QUALITY ASSURANCE

- A. All technology work shall be done by the Bidder's staff – no subcontracting is allowed.
- B. Electrical work may be subcontracted to a qualified and licensed Electrical Contractor as needed.

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- C. Designer and Programmer Qualifications: Avixa CTS-D or equivalent training and experience, who is a manufacturer's authorized representative, trained and approved for installation of units required for this Project.
- D. Installer Qualifications: Avixa CTS or equivalent training and experience, who is a manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- F. Product Certification
 - 1. Components shall be UL or third party certified. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations, submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Owner. The certificate shall state that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.

PART 2 - PRODUCT

2.1 GENERAL

- A. Compatibility of Components: Coordinate component features to form an integrated system. Match components and interconnections for optimum performance of specified functions.
- B. Equipment: Select equipment for normal operation on input power usually supplied at 110 to 130 V, 60 Hz.
- C. Equipment Mounting: Where rack or cabinet mounting is indicated, equipment shall be designed to mount in a 19-inch housing complying with TIA/EIA-310-D. Rackmount equipment in the Winstead console.
 - 1. Blank off all open spaces in cabinets and counsel with solid panels, black in color
- D. All electronic equipment shall be of the manufacturer's latest "build" at the time of award, for hardware, firmware and software.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- F. Regulatory Requirements - In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory

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provisions of NFPA 70 unless more stringent requirements are specified or indicated.

- G. Standard Products - Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship unless specific manufacturer and/or part numbers is included herein.
- H. Material and Equipment Manufacturing Date - Products manufactured more than 1 year prior to date of delivery to site shall not be used, unless specified otherwise.
- I. All cabling in plenum rated spaces shall be plenum rated per NFPA 70 (current as adopted and revised edition by AHJ)

2.2 EQUIPMENT AND MATERIAL

- A. The following list is not all-inclusive. Refer also to requirements herein and project drawings.
- B. The system and display devices shall support 4K (4:4:4) resolution
- C. Board room displays and mounts – two wall-mounted and one lectern mounted
 - 1. 55" 4K HDR Flat Panel Displays
 - a. Manufacturer – LG or Panasonic
 - 2. Display Wall Mount – adjustable tilt
 - a. Chief or approved equivalent
- D. Board room projector
 - 1. 8000 lumen 4K (4096x2160) WUXGA (native) 16:10 aspect ratio
- E. Blu-ray/CD/SD/USB player
 - 1. Denon 500BD MKII or approved equal
- F. Rauland HD video switcher: V-60HD
- G. iPanel® Table Dock for iPad Air® and iPad® Devices
 - 1. Manufacturer - Crestron or approved equal
- H. POE/POE+ GbE network switch(es)
 - 1. Vaddio or approved equal by Crestron
- I. Console rail-mounted preview and program displays
 - 1. Preview display capable of simultaneous views for each camera (Minimum 4)
 - 2. 15.6" TFT Active Matrix Color LCD
 - 3. Resolution - 3840 x 2160 pixels
 - 4. Two (2) SDI inputs automatically switch between SD, HD, 3G, 6G and 12G-SDI. Reclocked video output.

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5. Optical Video Input - SFP Optical Fiber connector cage.
 6. SDI Video Output automatically switches to input selection.
 7. Multi Rate Support with auto detection of 4K, 2K, HD or standard definition inputs.
 8. Ethernet - Gigabit ethernet with loop through.
- J. Console rail-mounted audio monitor
1. One (1) SDI Video Inputs, one (1) loop out SDI Video Output; SDI Rates of 270Mb, 1.5G, 3G, 6G, 12G, one (1) HDMI 2.0 Video Output
 2. Multi Rate Support - SDI and HDMI switchable between standard definition, high definition and ultra-high definition
 3. SDI Video Loop out – one (1) reclocked 10-bit SD/HD/3G-SDI, 6G-SDI and 12G-SDI
 4. Analog Audio Inputs – two (2) XLR. 2 x RCA HiFi, Analog Audio Outputs – (1) 6.5mm headphone socket
 5. Digital Audio Inputs – one (1) XLR
 6. Built in Speaker - Stereo with 2-way crossover and independent stereo subwoofers
 7. AES/EBU Audio Inputs – Two (2) channels balanced 110Ω AES/EBU via XLR.
 8. SDI Audio Inputs - 16 channels embedded in SD, HD and UltraHD 4K, SDI Audio Outputs - 16 channels embedded audio loop out
 9. HDMI Audio Outputs – eight (8) Channels embedded in SD, HD and 4K.
 10. Ethernet - 1Gb/sec for configuration and firmware updates.
 11. Modes - Push button interface allows for input selection, channel selection, independent left and right audio, mute and volume control with scroll wheel.
- K. Mini Ultra HD broadcast deck with SD cards
1. Provide on console rail mounted shelf, or console rail mounted
 2. One (1) SDI Video Inputs, two (2) SDI Video Outputs with rates of 270Mb, 1.5G-SDI, 3G-SDI, 6G-SDI
 3. One (1) HDMI type A Video Output
 4. One (1) Ethernet with Power over Ethernet
 5. SDI Audio Inputs - 16 channels embedded in SD and HD in QuickTime files.
 6. SDI Audio Outputs - 16 channels embedded in SD and HD in QuickTime files.
 7. HDMI Audio Outputs – eight (8) channels embedded in SD, HD and UHD in QuickTime files.
 8. Reference Input and Generator - Tri-Sync or Black Burst

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- L. SD Cards – four (4) 200GB and one (1) SD card dock
- M. HD PTZ Cameras
 - 1. 1080p camera with 20X optical zoom for capturing HD images at long distances.
 - 2. Supports 3G-SDI, HDMI, and IP streaming (H.264, H.265, & MJPEG)
 - 3. IP Joystick control
- N. Control and Distribution System
 - 1. Crestron Digital Media Switcher and Processor - DMPS3-4K-350-C-AIRMEDIA and CP3 3-Series Control System
- O. Touch panel
 - 1. Crestron TSW-1060-B-S – rack mounted in cabinet
- P. 4K Receiver & Room Controller
 - 1. Manufacturer - Crestron
- Q. Wall Plate Transmitter
 - 1. Manufacturer - Crestron
- R. Cables and Connectivity
 - 1. Rated for use in installed space per NEC – length and pin-out as required.
 - 2. HDMI
 - 3. HD SDI
 - 4. Category 6 UTP and Category 6A cable meeting current TIA 568 requirements
 - 5. Other connectivity, adapter or conversion cable as required

PART 3 - EXECUTION

3.1 GENERAL

- A. This work shall be performed in accordance with acknowledged industry standards and professional best practices.
- B. Provide all equipment, material, labor and services, including those not specifically mentioned, shown or otherwise indicated, which may be necessary to complete or perfect all parts of the installation for its intended operation. Ensure that all are in compliance with requirements stated or reasonably inferred by contract documents.
- C. Provide all necessary interconnecting and equipment cords for all equipment and microphones for full functionality to meet the intent of these specifications as indicated herein.
- D. Equipment (patch) Cords shall be of appropriate length for the intended application

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- E. Provide surge protected power strips as needed at end devices
- F. Prior to start of installation, the Contractor shall review associated project drawings and the site (at the appropriate time in construction) to field verify placement of speakers, cabinets, etc. for optimal performance and coordination with other trades in ceiling spaces. All revisions or modifications required shall be conveyed to the Owner for approval. Any additional work shall be at no cost to the owner.

3.2 DELIVERY, STORAGE, AND HANDLING

- A. Contractor shall provide off-site storage – the Owner will not accept deliveries or provide storage. The Contractor shall deliver to sites as equipment is needed for the installation.
- B. Delivery of equipment shall be direct to the building. Delivery shall not be prior to the start of installation. The Contractor must be on-site for any deliveries to each building.
- C. Delivery trucks shall be equipped with an appropriate lift gate as required, as the building doesn't have delivery wells or lifts to move materials.
- D. Secure storage of materials is the responsibility of the contractor.

3.3 COORDINATION

- A. Coordinate delivery and setup/installation of equipment at each location with Owner.
- B. Coordinate cable routes and all other pertinent work with Owner and other contractors as required.
- C. Coordinate layout and installation of system components and suspension systems with other construction that penetrates ceilings or is supported by them, including but not limited to light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

3.4 CABLE INSTALLATION

- A. Comply with NECA 1, EIA/TIA, BICSI TDMM, TIA 568 & 569 and other industry associated standards.
- B. Terminate conductors; no cable shall contain un-terminated elements. Make terminations only at outlets and terminals.
- C. Splices, Taps, and Terminations: Arrange on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Cables may not be spliced except for any existing speaker cable that requires extension.
- D. Secure and support cables at intervals not exceeding 30 inches (760 mm) and not more than 6 inches (150 mm) from cabinets, boxes, fittings, outlets, racks, frames, and terminals. User only existing low voltage pathway or establish new pathway. Do not secure or attach to, lay on or support by other systems, hangers or equipment.

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- E. Bundle, lace, and train conductors to terminal points without exceeding manufacturer's limitations on bending radii. Install lacing bars and distribution spools.
- F. Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between termination, tap, or junction points UNO. Remove and discard cable if damaged during installation and replace it with new cable.
- G. Cold-Weather Installation: Bring cable to room temperature before dereeling. Heat lamps shall not be used.
- H. Open-Cable Installation:
 - 1. Install cabling with horizontal and vertical cable guides in telecommunications spaces with terminating hardware and interconnection equipment.
 - 2. Suspend speaker cable not in a wire way or pathway a minimum of 8 inches above ceiling by cable supports not more than 60 inches apart.
 - 3. Cable shall not be run through structural members or be in contact with pipes, ducts, or other potentially damaging items.
- I. Separation of Wires: Separate speaker-microphone, line-level, speaker-level, and power wiring runs. Install in separate raceways or, where exposed or in same enclosure, separate conductors at least 12 inches apart for speaker microphones and adjacent parallel power and telephone wiring. Separate other intercommunication equipment conductors as recommended by equipment manufacturer.
- J. Routing and Support
 - 1. All cable shall be neatly bundled and tied throughout the route.
 - 2. All cable not in sleeves, slots or conduit shall be self-supported using industry standard support devices.
 - 3. Supports shall be from structural members only. No supports may be attached too, shared or otherwise connected with other system supports such as ceiling wires, pipe and conduit support mechanisms, etc.
 - 4. Cable shall be supported no greater than 5' apart, with no greater sag than 12" between supports.
 - 5. All cable and other devices shall be rated for the space into which it is to be installed. New cable shall have a 10' service loop at the cabinet location.
 - 6. Neatly bundle, tie up or otherwise secure all patch cables, power cables and slack cable.
 - 7. Hook and loop fasteners (i.e. Velcro™) shall be used throughout the installation. Zip ties are not acceptable.
- K. A common ground shall be used between all components; this ground bus shall be the responsibility of this Vendor.

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1. This Vendor shall include the correct bonding and grounding of the AV rack and equipment.

3.5 EQUIPMENT INSTALLATION

- A. Install all equipment per manufacturer's requirements, using all recommended frames, brackets and other supporting material and methods.
- B. Match input and output impedances and signal levels at signal interfaces. Provide matching networks where required.
- C. Identification of Conductors and Cables: Color-code conductors and apply wire and cable marking tape to designate wires and cables so they identify media in coordination with system wiring diagrams.
- D. Group items of same function together, either vertically or side by side, and arrange controls symmetrically.
- E. Arrange all inputs, outputs, interconnections, and test points so they are accessible at rear of rack for maintenance and testing, with each item removable from rack without disturbing other items or connections.
- F. Provide space between amplifiers and other high-power consumption equipment for heat dissipation
- G. Blank Panels: Cover empty space in equipment cabinet and console so entire front is occupied by panels.

3.6 GROUNDING/BONDING

- A. Ground cable shields and equipment to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other impairments.
- B. Signal Ground Terminal: Locate at main equipment cabinet. Isolate from power system and equipment grounding.

3.7 PROGRAMMING

- A. All programming required on all system, control, input and output equipment to make the Audio video System fully operational and functional per system requirements and parameters indicated herein.
- B. Preparation
 1. Conduct pre-programming meetings with Owner/PSC to verify the exact operation of the features and functionality of all equipment indicated herein.
 2. Submit proposed touch panel layout and screen design in a flow chart format to Owner/PSC for approval prior to implementation.
 3. Submit operation processes in flowchart format to Owner/PSC for approval prior to implementation.
- C. Touch Panel

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1. The touch screen shall be programmed with the following specifics:
 - a. All programmed “soft keys” or “buttons” or other icons shall be easy to use, see and understand, with the overall layout, color and visual effects aesthetically pleasing as agreed to with Owner. The keys shall be lit or backlit for use when the lights are dimmed
 - D. Program Main Control System to properly interface with touch panel and all other system devices. Automate as many functions as possible to provide “One touch” operation to perform several related tasks at once.
- 3.8 CLEANUP AND DEMOLITION
- A. All spaces associated with this work shall be left clean at the end of each day’s work, and at the end of the project. Trash, boxes, packing material, debris and litter shall be removed daily and disposed of off-site
 - B. Coordinate with Owner prior to removing from site any material or equipment they may choose to keep.
 - C. Work Included
 1. Completely remove all unused technology and associated electrical cabling and wire from all spaces per NFPA 70.
 2. All other unused or replaced AV equipment and associated hardware, wiring and material
- 3.9 RESTORATION
- A. Restore any damage caused by or during the implementation of the project to walls, ceilings, floors, doors, window coverings, finishes, etc.
- 3.10 COMMISSIONING
- A. Coordinate all cut over activities to include scheduling, coordination with the Owner’s operations and other contractors (if any), and final implementation with the Owner.
 - B. System shall be properly tuned prior to the completion of the cutover period.
 - C. Coordinate with Owner display height
- 3.11 TESTING
- A. The Audio video System shall be fully tested for proper functionality and operation of all equipment and programming, to ensure the system meets or exceeds all specified parameters.
 - B. Testing and Field Quality Control
 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

2. Cable tests – Test all UTP cabling per TIA-568. Test instruments shall meet or exceed applicable requirements in TIA-568 for Permanent Link. Perform tests with a level III tester that complies with performance requirements in "Test Instruments (Normative)" Annex, complying with measurement accuracy specified in "Measurement Accuracy (Informative)" Annex. Use only test cords and adapters that are qualified by test equipment manufacturer for permanent link test configuration.
3. System tests and Inspections:
 - a. Schedule tests with at least seven days' advance notice of test performance.
 - b. Operational Test: Perform tests that include originating program and page messages at microphone outlets, preamplifier program inputs, and other inputs. Verify proper routing and volume levels and that system is free of noise and distortion.
- C. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.
- D. Prepare test and inspection reports.

3.12 IDENTIFICATION

- A. The system, cables and all equipment shall be fully labeled, marked and documented to provide easy identification of devices during troubleshooting, maintenance and other operations.
 1. Securely affix a mechanically imprinted label on each cable at each end identifying type, usage and device it connects.
 2. Securely affix a mechanically imprinted label on each piece of equipment with device type and any other pertinent information that would be useful in troubleshooting and maintenance.
 3. Securely affix a mechanically imprinted label at connections on each piece of equipment that match labels on the connecting cables.
 4. All labels shall be aesthetically pleasing, straight with squared corners, visible and readable at a distance of 24".

3.13 DEMONSTRATION AND ADJUSTMENTS

- A. Demonstrate to the Owner's/PSC's satisfaction all equipment, components, features, functionality and operation, of each installed system.
- B. Correct all deficiencies and re-demonstrate for acceptance at no additional cost to the Owner.

3.14 TRAINING

- A. Upon completion of the installation and operational testing, the Vendor shall provide training as specified below.

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- B. Provide equipment familiarization, operational and basic maintenance training to recording secretary and Owner technology staff to their satisfaction. All training will be conducted on a live and completely operational system with the room furniture and equipment set up in a board meeting configuration.
- C. Specify in bid response actual amount of training time included.

3.15 FINAL ACCEPTANCE

- A. Final acceptance and closeout of the contract will be given only after all of the following have occurred:
 - 1. All closeout and administration documentation have been received, reviewed and approved by Owner's design professional.
 - 2. All tests have been conducted, system demonstrated with and accepted by the Owner and review and approval of all test documents by Owner.
 - 3. A physical "punch" inspection has been made by for quality of workmanship, operation, and identification by the Owner.
- B. Acceptance shall not be given until all "punch list" items have been rectified to Owner satisfaction, Owner has beneficial use of the system, all training has been conducted to the Owner's satisfaction and Owner has accepted the system by signature and taken full ownership.
 - 1. All punch list items shall be complete within 5 business days.
 - 2. If deemed by the Owner or PSC that the system is not ready for inspection when the punch list is attempted, and multiple trips are required to inspect or confirm completion of certified completed punch-list (by contractor) a fee of \$150.00 per hour shall be assessed against and paid by the contractor's retainage.

3.16 CLOSEOUT DOCUMENTATION

- A. Final "As-built" Shop Drawings: For supports, equipment cabinets and racks, and components. Include plans, elevations, sections, details, and attachments to other work.
- B. Detail equipment assemblies and indicate dimensions, weights, required clearances, method of field assembly, components, and location and size of each field connection.
- C. Equipment arrangements
- D. Wiring Diagrams: For power, signal, and control wiring
- E. Identify terminals to facilitate installation, operation, and maintenance
- F. Single-line diagram showing interconnection of components
- G. Cabling diagram showing cable routing
- H. Field quality-control reports

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- I. Operation and Maintenance Data: For all systems to include in emergency, operation, and maintenance manuals
- J. Warranty: Submit warranty documents specified

3.17 ADMINISTRATION

- A. Upon completion of the project, document all equipment in an excel spreadsheet showing equipment type, quantity, part numbers, location, function and connectivity.
- B. Include an as-built one-line diagram in either AutoCAD or Visio format showing all devices, connectivity, function, etc.
- C. Provide at the end of the project two copies of the following documents in three ring binders and in software format that is acceptable to the Owner on mutually acceptable electronic media (I.e. – USB, etc.):
- D. Equipment documentation (see above)
- E. One-line diagram (see above)
- F. All technical manuals and other documents provided with each piece of equipment. (Only one of the two binders will require these as not all equipment will have the required copies to place in both binders, note on cover “Original Manuals Enclosed”)
- G. Owner acceptable electronic media containing PDF copies of equipment manuals, user manuals, and a backup of equipment programming to be used in the event of catastrophic failure in which the entire system needs to have original programming restored.
- H. Hard and soft copies of all system programming and other pertinent setup or tuning information.
- I. Copies of all training material and approved syllabus.
- J. Flow-charted operations of the system as indicated herein.
- K. Suggested maintenance schedules or other maintenance information
- L. Maintenance or Emergency service contact information including names, titles and contact numbers (Escalation list)
- M. Manufacturer and Vendor warranties

3.18 SUPPORT

- A. Support will start after the final acceptance of the project AND the Owner has “beneficial use” of the system.
 - 1. Provide rates for support and any support contract information
 - 2. Include all costs such as trip charges, mileage, etc.
 - 3. Provide escalation list for support or service issues

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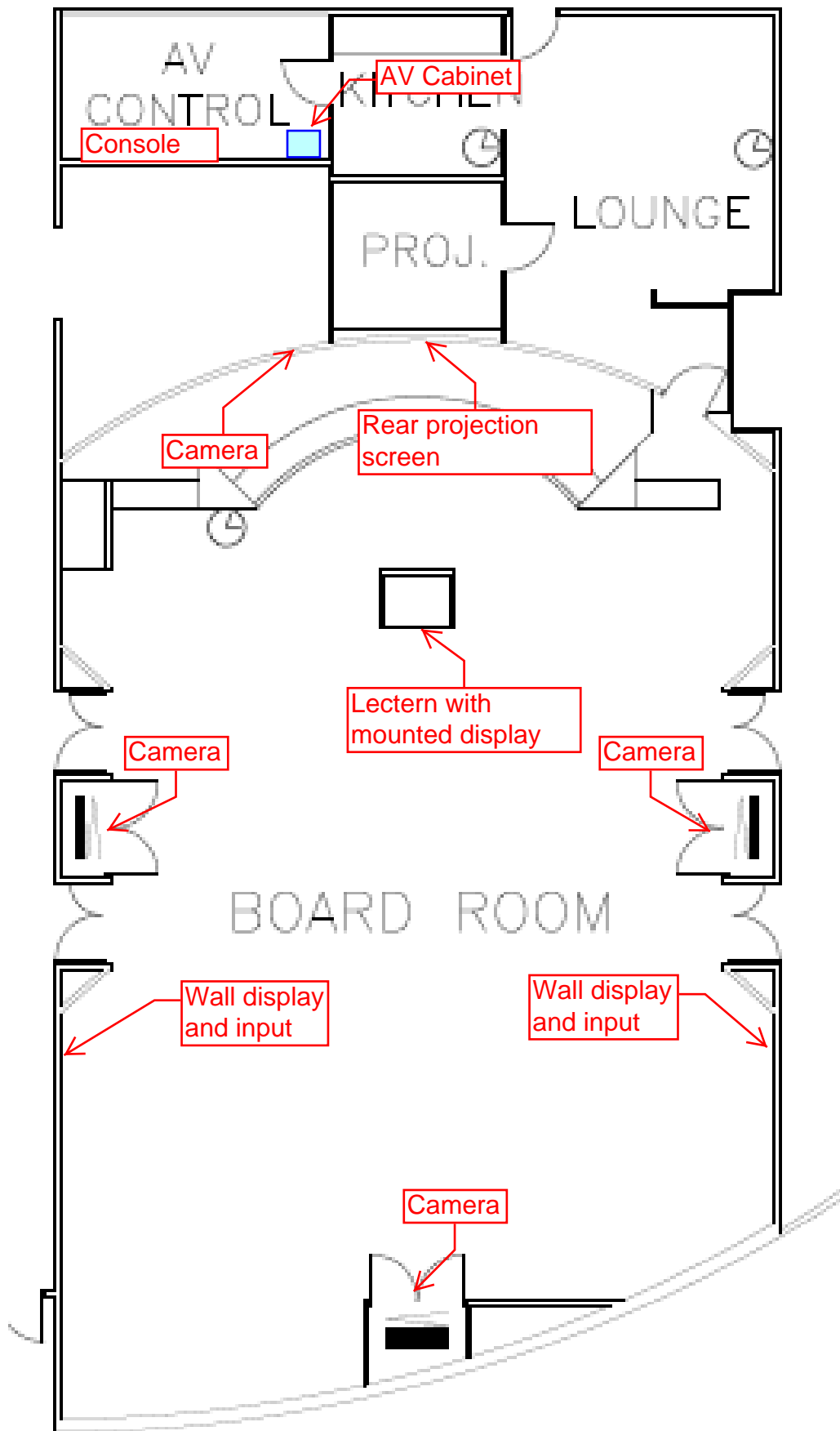
4. Provide copy of any available support agreements with cost for Owner consideration

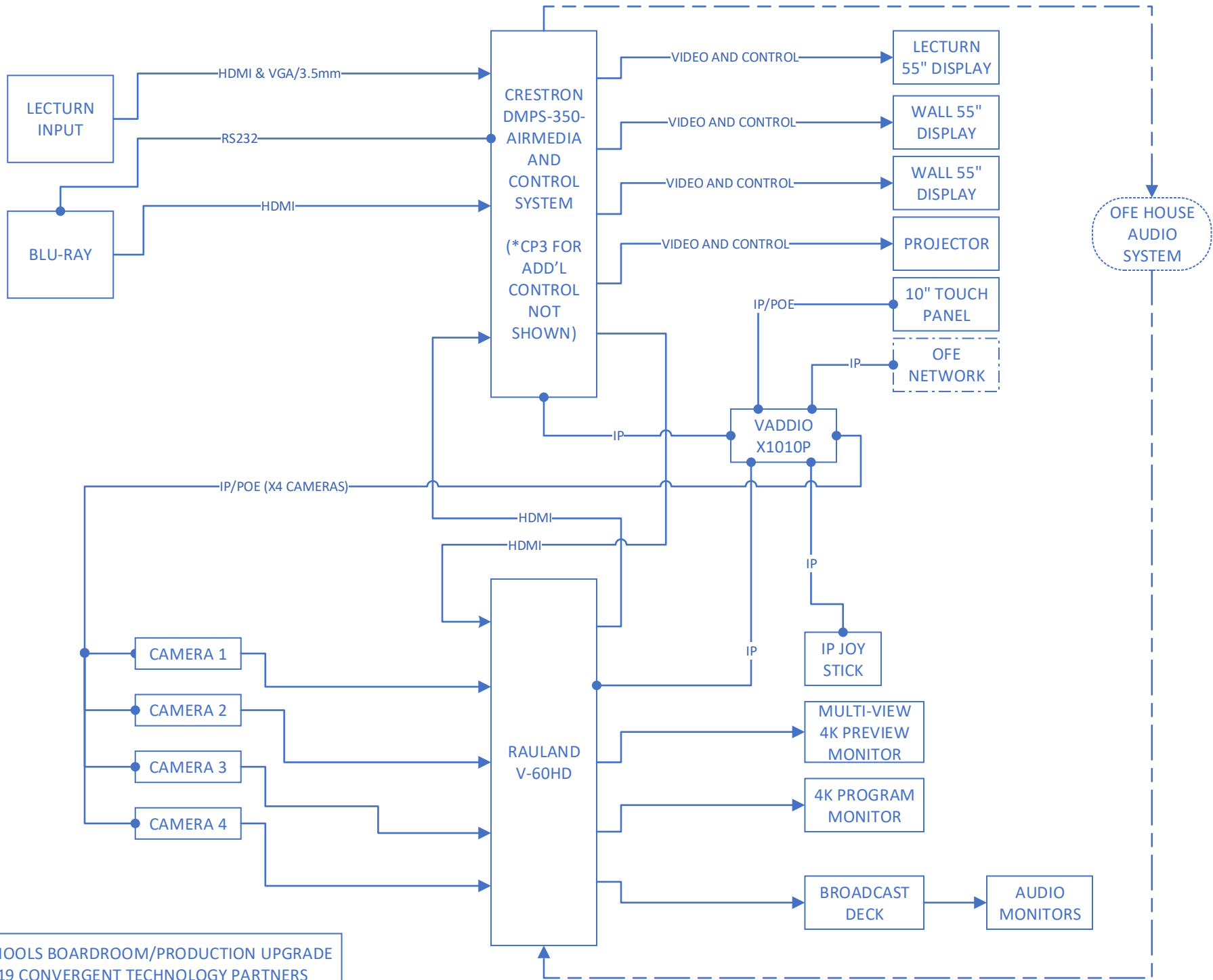
3.19 WARRANTY

- A. Provide all manufacturer warranty information
- B. Provide a minimum 2-year manufacturer warranty on all electronic or electrical equipment. The warranty shall commence upon final acceptance by the Owner. The warranty shall include labor and material to replace all components that fails or do not comply with the performance specifications.
- C. Provide a minimum 1-year manufacturer warranty on all other material. The warranty shall commence upon final acceptance by the Owner. The warranty shall include labor and material to replace all components that fails or do not comply with the performance specifications.
- D. Include in closeout package all warranty service procedures and contacts

END OF SECTION

TROY SCHOOLS BOARD ROOM A/V UPGRADE 12-16-19





TROY SCHOOLS BOARDROOM/PRODUCTION UPGRADE
12/3/19 CONVERGENT TECHNOLOGY PARTNERS



Convergent Technology Partners
6197 Miller Road, Ste #4,
Swartz Creek, MI 48473
810.720.3820

E-mail: info@ctpartners.net
Website: www.ctpartners.net

January 21, 2020
Beth Soggs
Technology Director
Troy School District
Subject: AV Systems Upgrade RFP #9897 Recommendation Letter

Beth,

On December 11, 2019, Troy School District issued a Request for Proposal (RFP) soliciting bids for the Audio Video upgrade for the board room. The RFP was posted to the District's website. Convergent also spoke with several vendors regarding the solicitation and pointed them to the website to download the RFP and supporting documentation. On January 14, 2020, sealed bids were accepted and opened by the District. Six proposals were received. The initial results were tabulated as follows:

| Contractor | Base Bid |
|-----------------------------|-----------------|
| Conference Technologies | \$51,543.37 |
| Sound Planning | \$57,467.04 |
| MOSS | \$60,379.45 |
| Advanced Lighting and Sound | \$62,345.00 |
| TEL Systems | \$68,893.00 |
| Conti Corporation | \$104,839.41 |

All proposals were evaluated for compliance with the RFP requirements, pricing, technical solution and acceptance of terms and conditions of the RFP. Conference Technologies and Sound Planning Communications were both considered non-compliant and removed from consideration. We proceeded with the evaluation of the qualified and compliant low bidder - MOSS.

MOSS is a well-established and financially stable contractor with a very good industry reputation. They provided a complete and professional proposal. The core of their proposed system is a Crestron DMPS 350-C and a CP3 processor, following the requirements and basis of design manufacturers in the RFP. Our evaluation found their proposal to be complete for a 100% turnkey AV upgrade to the boardroom.

Based on these factors, we recommend the award of the AV Systems (RFP #9897) Upgrade project to the low qualified bidder, MOSS, in the amount of \$60,379.45, with an additional ~5% contingency of \$3,019.00 for a total of \$63,398.45. Please contact me with any questions at 810-223-0531.

Respectfully,

Eric Helsel, RCDD/OSP/RTPM
Project Manager, Convergent Technology Partners