

 UNIVERSITY OF SOUTH CAROLINA	INVITATION FOR BID	Solicitation Number	USC-IFB-2746-KS
		Date Issued	1.15.15
		Date Posted	1.15.15
		Procurement Officer	Kevin Sanders
		Phone	803.777.4115
		E-Mail Address	ksanders@mailbox.sc.edu

DESCRIPTION: A/V system for USC School of Journalism

USING GOVERNMENT AGENCY: UNIVERSITY OF SOUTH CAROLINA

The Term "Offer" Means Your "Bid" or "Proposal".

SUBMIT OFFER BY: (Opening Date/Time): **2.12.15 2:30pm** See "Deadline for Submission of Offer" provision

QUESTIONS MUST BE RECEIVED BY: **2.2.15 12:00 noon** See "Questions From Offerors" provision
1 original hard copy (marked original) and 1 electronic copy (cd/dvd, flash drive, etc. E-MAIL CANNOT BE ACCEPTED)

NUMBER OF COPIES TO BE SUBMITTED:

Offers must be submitted in a sealed package. Solicitation Number & Opening Date must appear on package exterior.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	PHYSICAL ADDRESS:
University of South Carolina – Purchasing Dept. 1600 Hampton St., Suite 606 Columbia, SC 29208	University of South Carolina – Purchasing Dept. 1600 Hampton St., Suite 606 Columbia, SC 29208

See "Submitting Your Offer" provision

CONFERENCE TYPE: N/A DATE & TIME: 1.27.15 10:30am As appropriate, see "Conferences-Pre-Bid/Proposal" & "Site Visit" provisions	LOCATION: 743 Greene Street Columbia SC 29201
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AWARD & AMENDMENTS	Award will be posted at the Physical Address stated above on 2.17.15 . The award, this solicitation, and any amendments will be posted at the following web address: http://purchasing.sc.edu
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You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date.

NAME OF OFFEROR <small>(Full legal name of business submitting the offer)</small>		OFFEROR'S TYPE OF ENTITY: <small>(Check one)</small> <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporate entity (not tax-exempt) <input type="checkbox"/> Tax –exempt corporate entity <input type="checkbox"/> Government entity (federal, state, or local) <input type="checkbox"/> Other _____ <small>(See "Signing Your Offer" provision.)</small>
AUTHORIZED SIGNATURE <small>(Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above.)</small>		
TITLE <small>(Business title of person signing above)</small>		
PRINTED NAME <small>(Printed name of person signing above)</small>	DATE SIGNED	

Instructions regarding Offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the offeror above. An offer may be submitted by only one legal entity. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, *i.e.*, a separate corporation, partnership, sole proprietorship, etc.

STATE OF INCORPORATION	<small>(If offeror is a corporation, identify the state of Incorporation.)</small>
TAXPAYER IDENTIFICATION NO.	<small>(See "Taxpayer Identification Number" provision)</small>

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business) 	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause) _____ Area Code - Number - Extension Facsimile _____ E- mail Address
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PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause) _____ Payment Address same as Home Office Address _____ Payment Address same as Notice Address (check only one)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses) _____ Order Address same as Home Office Address _____ Order Address same as Notice Address (check only one)
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ACKNOWLEDGMENT OF AMENDMENTS
 Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date						

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	_____ Calendar Days (%)
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PREFERENCES - A NOTICE TO VENDORS (SEP. 2009): On June 16, 2009, the South Carolina General Assembly rewrote the law governing preferences available to in-state vendors, vendors using in-state subcontractors, and vendors selling in-state or US end products. This law appears in Section 11-35-1524 of the South Carolina Code of Laws. A summary of the new preferences is available at www.procurement.sc.gov/preferences. ***ALL THE PREFERENCES MUST BE CLAIMED AND ARE APPLIED BY LINE ITEM, REGARDLESS OF WHETHER AWARD IS MADE BY ITEM OR LOT. VENDORS ARE CAUTIONED TO CAREFULLY REVIEW THE STATUTE BEFORE CLAIMING ANY PREFERENCES. THE REQUIREMENTS TO QUALIFY HAVE CHANGED. IF YOU REQUEST A PREFERENCE, YOU ARE CERTIFYING THAT YOUR OFFER QUALIFIES FOR THE PREFERENCE YOU'VE CLAIMED. IMPROPERLY REQUESTING A PREFERENCE CAN HAVE SERIOUS CONSEQUENCES.*** [11-35-1524(E)(4)&(6)]

PREFERENCES - ADDRESS AND PHONE OF IN-STATE OFFICE: Please provide the address and phone number for your in-state office in the space provided below. An in-state office is necessary to claim either the Resident Vendor Preference (11-35-1524(C)(1)(i)&(ii)) or the Resident Contractor Preference (11-35-1524(C)(1)(iii)). Accordingly, you must provide this information to qualify for the preference. An in-state office is not required, but can be beneficial, if you are claiming the Resident Subcontractor Preference (11-35-1524(D)).

_____ In-State Office Address same as Home Office Address
 _____ In-State Office Address same as Notice Address (check only one)

Solicitation Outline

- I. Scope of Solicitation
- II. Instructions to Offerors
 - A. General Instructions
 - B. Special Instructions
- III. Scope of Work / Specifications
May be blank if Bidding Schedule / Cost Proposal attached
- IV. Information for Offerors to Submit
- V. Qualifications
- VI. Award Criteria
- VII. Terms and Conditions
 - A. General
 - B. Special
- VIII. Bidding Schedule / Cost Proposal
- IX. Attachments to Solicitation

I. Scope Of Solicitation

ACQUIRE SERVICES (JAN 2006): The purpose of this solicitation is to acquire services complying with the enclosed description and/or specifications and conditions.

It is the intent of the University of South Carolina to solicit bids from qualified sources of supply to perform _furnish and install A/V system per specifications for the School of Journalism Department of the University of South Carolina Columbia campus in accordance with all requirements stated herein.

II. Instructions To Offerors - A. General Instructions

DEFINITIONS (JANUARY 2006) EXCEPT AS OTHERWISE PROVIDED HEREIN, THE FOLLOWING DEFINITIONS ARE APPLICABLE TO ALL PARTS OF THE SOLICITATION.

AMENDMENT – means a document issued to supplement the original solicitation document.

BUYER – means the Procurement Officer.

CHANGE ORDER - means any written alteration in specifications, delivery point, rate of delivery, period of performance, price, quantity, or other provisions of any contract accomplished by mutual agreement of the parties to the contract.

CONTRACT - See clause entitled “Contract Documents & Order of Precedence.”

CONTRACT MODIFICATION – means a written order signed by the Procurement Officer, directing the contractor to make changes which the changes clause of the contract authorizes the Procurement Officer to order without the consent of the contractor.

CONTRACTOR - means the Offeror receiving an award as a result of this solicitation.

COVER PAGE – means the top page of the original solicitation on which the solicitation is identified by number. Offerors are cautioned that Amendments may modify information provided on the Cover Page.

OFFER – means the bid or proposal submitted in response this solicitation. The terms “Bid” and “Proposal” are used interchangeably with the term “Offer.”

OFFEROR – means the single legal entity submitting the offer. The term “Bidder” is used interchangeably with the term “Offeror.” See bidding provisions entitled “Signing Your Offer” and “Bid/Proposal As Offer To Contract.”

ORDERING ENTITY - Using Governmental Unit that has submitted a Purchase Order.

PAGE TWO – means the second page of the original solicitation, which is labeled Page Two.

PROCUREMENT OFFICER – means the person, or his successor, identified as such on the Cover Page.

YOU and YOUR – means Offeror.

SOLICITATION – means this document, including all its parts, attachments, and any Amendments.

STATE – means the Using Governmental Unit(s) identified on the Cover Page.

SUBCONTRACTOR – means any person having a contract to perform work or render service to Contractor as a part of the Contractor’s agreement arising from this solicitation.

USING GOVERNMENTAL UNIT – means the unit(s) of government identified as such on the Cover Page. If the Cover Page names a “Statewide Term Contract” as the Using Governmental Unit, the Solicitation seeks to establish a Term Contract [11-35-310(35)] open for use by all South Carolina Public Procurement Units [11-35-4610(5)].

WORK - means all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor’s obligations under the Contract.

AMENDMENTS TO SOLICITATION (JANUARY 2006) (a) The Solicitation may be amended at any time prior to opening. All actual and prospective Offerors should monitor the following web site for the issuance of Amendments: <http://purchasing.sc.edu>. (b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and

returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

AWARD NOTIFICATION (NOV 2007): Notice regarding any award or cancellation of award will be posted at the location specified on the Cover Page. If the contract resulting from this Solicitation has a total or potential value of fifty thousand dollars or more, such notice will be sent to all Offerors responding to the Solicitation. Should the contract resulting from this Solicitation have a total or potential value of one hundred thousand dollars or more, such notice will be sent to all Offerors responding to the Solicitation and any award will not be effective until the eleventh day after such notice is given. [02-2A010-1]

BID / PROPOSAL AS OFFER TO CONTRACT (JANUARY 2006) By submitting Your Bid or Proposal, You are offering to enter into a contract with the Using Governmental Unit(s). Without further action by either party, a binding contract shall result upon final award. Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror on the Cover Page. An Offer may be submitted by only one legal entity; "joint bids" are not allowed.

BID ACCEPTANCE PERIOD (JANUARY 2006) In order to withdraw Your Offer after the minimum period specified on the Cover Page, You must notify the Procurement Officer in writing.

BID IN ENGLISH & DOLLARS (JANUARY 2006) Offers submitted in response to this solicitation shall be in the English language and in US dollars, unless otherwise permitted by the Solicitation.

CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS (JANUARY 2006)

(a)(1) By submitting an Offer, Offeror certifies, to the best of its knowledge and belief, that-

(i) Offeror and/or any of its Principals-

(A) Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any state or federal agency;

(B) Have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) Offeror has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any public (Federal, state, or local) entity.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

(b) Offeror shall provide immediate written notice to the Procurement Officer if, at any time prior to contract award, Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) If Offeror is unable to certify the representations stated in paragraphs (a)(1), Offer must submit a written explanation regarding its inability to make the certification. The certification will be considered in connection with a review of the Offeror's responsibility. Failure of the Offeror to furnish additional information as requested by the Procurement Officer may render the Offeror nonresponsive.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly or in bad faith rendered an erroneous certification, in addition to other remedies available to the State, the Procurement Officer may terminate the contract resulting from this solicitation for default.

CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (MAY 2008)

GIVING FALSE, MISLEADING, OR INCOMPLETE INFORMATION ON THIS CERTIFICATION MAY RENDER YOU SUBJECT TO PROSECUTION UNDER SECTION 16-9-10 OF THE SOUTH CAROLINA CODE OF LAWS AND OTHER APPLICABLE LAWS.

(a) By submitting an offer, the offeror certifies that-

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to-

- (i) Those prices;
- (ii) The intention to submit an offer; or
- (iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory-

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; or

(2)(i) Has been authorized, in writing, to act as agent for the offeror's principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification [As used in this subdivision (b)(2)(i), the term "principals" means the person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal];

(ii) As an authorized agent, does certify that the principals referenced in subdivision (b)(2)(i) of this certification have not participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification.

CLARIFICATION (NOV 2007)Pursuant to Section 11-35-1530(6), the Procurement Officer may elect to communicate with you after opening for the purpose of clarifying either your offer or the requirements of the solicitation. Such communications may be conducted only with offerors who have submitted an offer which obviously conforms in all material aspects to the solicitation. Clarification of an offer must be documented in writing and included with the offer. Clarifications may not be used to revise an offer or the solicitation. [Section 11-35-1530(6); R.19-445.2080] [02-2B055-1]

CODE OF LAWS AVAILABLE (JAN 2006): The South Carolina Code of Laws, including the Consolidated Procurement Code, is available at <http://www.scstatehouse.net/code/statmast.htm>. The South Carolina Regulations are available at: <http://www.scstatehouse.net/coderegs/statmast.htm>.

COMPLETION OF FORMS / CORRECTION OF ERRORS (JAN 2006): All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Do not modify the solicitation document itself (including bid schedule). (Applicable only to offers submitted on paper.)

DEADLINE FOR SUBMISSION OF OFFER (JANUARY 2006) Any offer received after the Procurement Officer of the governmental body or his designee has declared that the time set for opening has arrived, shall be rejected unless the offer has been delivered to the designated purchasing office or the governmental bodies' mail room which services that purchasing office prior to the bid opening. [R.19-445.2070(H)]

DISCLOSURE OF CONFLICTS OF INTEREST OR UNFAIR COMPETITIVE ADVANTAGE (MAY 2011): You warrant and represent that your offer identifies and explains any unfair competitive advantage you may have in competing for the proposed contract and any actual or potential conflicts of interest that may arise from your participation in this competition or your receipt of an award. The two underlying principles are (a) preventing the existence of conflicting roles that might bias a contractor's judgment, and (b) preventing an unfair competitive advantage. If you have an unfair

competitive advantage or a conflict of interest, the state may withhold award. Before withholding award on these grounds, an offeror will be notified of the concerns and provided a reasonable opportunity to respond. Efforts to avoid or mitigate such concerns, including restrictions on future activities, may be considered.

DISCUSSIONS and NEGOTIATIONS (NOV 2007): Submit your best terms from a cost or price and from a technical standpoint. Your proposal may be evaluated and your offer accepted without any discussions, negotiations, or prior notice. Ordinarily, nonresponsive proposals will be rejected outright. Nevertheless, the State may elect to conduct discussions, including the possibility of limited proposal revisions, but only for those proposals reasonably susceptible of being selected for award. If improper revisions are submitted, the State may elect to consider only your unrevised initial proposal. [11-35-1530(6); R.19-445.2095(I)] The State may also elect to conduct negotiations, beginning with the highest ranked offeror, or seek best and final offers, as provided in Section 11-35-1530(8). If negotiations are conducted, the State may elect to disregard the negotiations and accept your original proposal. [02-2B060-1]

DRUG FREE WORK PLACE CERTIFICATION (JANUARY 2006) By submitting an Offer, Contractor certifies that, if awarded a contract, Contractor will comply with all applicable provisions of The Drug-free Workplace Act, Title 44, Chapter 107 of the South Carolina Code of Laws, as amended.

DUTY TO INQUIRE (JANUARY 2006) Offeror, by submitting an Offer, represents that it has read and understands the Solicitation and that its Offer is made in compliance with the Solicitation. Offerors are expected to examine the Solicitation thoroughly and should request an explanation of any ambiguities, discrepancies, errors, omissions, or conflicting statements in the Solicitation. Failure to do so will be at the Offeror's risk. Offeror assumes responsibility for any patent ambiguity in the Solicitation that Offeror does not bring to the State's attention.

ETHICS CERTIFICATE (May 2008): By submitting an offer, the offeror certifies that the offeror has and will comply with, and has not, and will not, induce a person to violate Title 8, Chapter 13 of the South Carolina Code of Laws, as amended (ethics act). The following statutes require special attention: Section 8-13-700, regarding use of official position for financial gain; Section 8-13-705, regarding gifts to influence action of public official; Section 8-13-720, regarding offering money for advice or assistance of public official; Sections 8-13-755 and 8-13-760, regarding restrictions on employment by former public official; Section 8-13-775, prohibiting public official with economic interests from acting on contracts; Section 8-13-790, regarding recovery of kickbacks; Section 8-13-1150, regarding statements to be filed by consultants; and Section 8-13-1342, regarding restrictions on contributions by contractor to candidate who participated in awarding of contract. The state may rescind any contract and recover all amounts expended as a result of any action taken in violation of this provision. If contractor participates, directly or indirectly, in the evaluation or award of public contracts, including without limitation, change orders or task orders regarding a public contract, contractor shall, if required by law to file such a statement, provide the statement required by Section 8-13-1150 to the procurement officer at the same time the law requires the statement to be filed. [02-2A075-2]

ILLEGAL IMMIGRATION CLAUSES (2008)

Procurement Code Transactions: Non-Construction

ILLEGAL IMMIGRATION (NOV. 2008): (An overview is available at www.procurement.sc.gov) By signing your offer, you certify that you will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable to you and your subcontractors or sub-subcontractors; or (b) that you and your subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." You agree to include in any contracts with your subcontractors language requiring your subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. [07-7B097-1]

Procurement Code Transactions: Construction

By signing its bid or proposal, Contractor certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include

in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)

Other Transactions

By submitting an offer, Contractor certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws (originally enacted as Section 3 of The South Carolina Illegal Immigration Reform Act, 2008 S.C. Act No. 280) and agrees to provide upon request any documentation required to establish either: (a) the applicability of Title 8, Chapter 14 to Contractor and any subcontractors or sub-subcontractors; or (b) the compliance with Title 8, Chapter 14 by Contractor and any subcontractor or sub-subcontractor. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring the subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in any contracts with the sub-subcontractors language requiring the sub-subcontractor to comply with the applicable requirements of Title 8, Chapter 14.

OMIT TAXES FROM PRICE (JANUARY 2006): Do not include any sales or use taxes in Your price that the State may be required to pay.

PROCUREMENT AGENT (AUG 2004) Authorized Agent. All authority regarding the conduct of this procurement is vested solely with the responsible Procurement Officer. Unless specifically delegated in writing, the Procurement Officer is the only government official authorized to bind the government with regard to this procurement.

PROTESTS (JUNE 2006) Any prospective bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the solicitation of a contract shall protest within fifteen days of the date of issuance of the applicable solicitation document at issue. Any actual bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the intended award or award of a contract shall protest within ten days of the date notification of award is posted in accordance with this code. A protest shall be in writing, shall set forth the grounds of the protest and the relief requested with enough particularity to give notice of the issues to be decided, and must be received by the appropriate Chief Procurement Officer within the time provided. See clause entitled "Protest-CPO". [~ 11-35-4210]

PUBLIC OPENING (JANUARY 2006) Offers will be publicly opened at the date / time and at the location identified on the Cover Page, or last Amendment, whichever is applicable

QUESTIONS FROM OFFERORS (JANUARY 2006): (a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing. Questions must be received by the Procurement Officer no later than five (5) days prior to opening unless otherwise stated on the Cover Page. Label any communication regarding your questions with the name of the procurement officer, and the solicitation's title and number. Oral explanations or instructions will not be binding. Any information given a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an Amendment to the solicitation, if that information is necessary for submitting offers or if the lack of it would be prejudicial to other prospective offerors. (b) The State seeks to permit maximum practicable competition. Offerors are urged to advise the Procurement Officer – as soon as possible – regarding any aspect of this procurement, including any aspect of the Solicitation that unnecessarily or inappropriately limits full and open competition.

REJECTION/CANCELLATION (JAN 2004) The State may cancel this solicitation in whole or in part. The State may reject any or all proposals in whole or in part. [SC Code Section 11-35-1710 & R.19-445.2065.]

RESPONSIVENESS / IMPROPER OFFERS (JANUARY 2006)

(a) Bid as Specified. Offers for supplies or services other than those specified will not be considered unless authorized by the Solicitation.

(b) Multiple Offers. Offerors may submit more than one Offer, provided that each Offer has significant differences other than price. Each separate Offer must satisfy all Solicitation requirements. If this solicitation is an Invitation for Bids, each separate offer must be submitted as a separate document. If this solicitation is a Request for Proposals, multiple offers may be submitted as one document, provided that you clearly differentiate between each offer and you submit a separate cost proposal for each offer, if applicable.

(c) Responsiveness. Any Offer which fails to conform to the material requirements of the Solicitation may be rejected as nonresponsive. Offers which impose conditions that modify material requirements of the Solicitation may be rejected. If a fixed price is required, an Offer will be rejected if the total possible cost to the State cannot be determined. Offerors will not be given an opportunity to correct any material nonconformity. Any deficiency resulting from a minor informality may be cured or waived at the sole discretion of the Procurement Officer. [R.19-445.2070 and Section 11-35-1520(13)]

(d) Price Reasonableness: Any offer may be rejected if the Procurement Officer determines in writing that it is unreasonable as to price. [R. 19-445.2070].

(e) Unbalanced Bidding. The State may reject an Offer as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the State even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

RESTRICTIONS APPLICABLE TO OFFERORS (JANUARY 2006) Violation of these restrictions may result in disqualification of your offer, suspension or debarment, and may constitute a violation of the state Ethics Act. (a) After issuance of the solicitation, ***you agree not to discuss this procurement activity in any way with the Using Governmental Unit or its employees, agents or officials.*** All communications must be solely with the Procurement Officer. This restriction may be lifted by express written permission from the Procurement Officer. This restriction expires once a contract has been formed. (b) Unless otherwise approved in writing by the Procurement Officer, ***you agree not to give anything to any Using Governmental Unit***

SIGNING YOUR OFFER (JANUARY 2006) Every Offer must be signed by an individual with actual authority to bind the Offeror. (a) If the Offeror is an individual, the Offer must be signed by that individual. If the Offeror is an individual doing business as a firm, the Offer must be submitted in the firm name, signed by the individual, and state that the individual is doing business as a firm. (b) If the Offeror is a partnership, the Offer must be submitted in the partnership name, followed by the words "by its Partner," and signed by a general partner. (c) If the Offeror is a corporation, the Offer must be submitted in the corporate name, followed by the signature and title of the person authorized to sign. (d) An Offer may be submitted by a joint venturer involving any combination of individuals, partnerships, or corporations. If the Offeror is a joint venture, the Offer must be submitted in the name of the Joint Venture and signed by every participant in the joint venture in the manner prescribed in paragraphs (a) through (c) above for each type of participant. (e) If an Offer is signed by an agent, other than as stated in subparagraphs (a) through (d) above, the Offer must state that it has been signed by an Agent. Upon request, Offeror must provide proof of the agent's authorization to bind the principal.

STATE OFFICE CLOSINGS (JANUARY 2006) If an emergency or unanticipated event interrupts normal government processes so that offers cannot be received at the government office designated for receipt of bids by the exact time specified in the solicitation, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal government processes resume. In lieu of an automatic extension, an Amendment may be issued to reschedule bid opening. If state offices are closed at the time a pre-bid or pre-proposal conference is scheduled, an Amendment will be issued to reschedule the conference. Useful information may be available at: http://www.scemd.org/scgovweb/weather_alert.htm.

SUBMITTING CONFIDENTIAL INFORMATION (AUG 2002): (An overview is available at www.procurement.sc.gov) For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the word "CONFIDENTIAL" every page, or portion thereof, that Offeror contends contains information that is exempt from public disclosure because it is either (a) a trade secret as defined in Section 30-4-40(a)(1), or (b) privileged and confidential, as that phrase is used in Section 11-35-410. For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the words "TRADE SECRET" every page, or portion thereof, that Offeror contends contains a trade secret as that term is defined by Section 39-8-20 of the Trade Secrets Act. For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the word "PROTECTED" every page, or portion thereof, that Offeror contends is protected by Section 11-35-1810. All markings must be conspicuous; use color, bold, underlining, or some other method in order to conspicuously distinguish the mark from the other text. Do not mark your entire response (bid, proposal, quote, etc.) as confidential, trade secret, or protected! If your response, or any part thereof, is improperly marked as confidential or trade secret or protected, the State may, in its sole discretion, determine it nonresponsive. If only portions of a page are subject to some protection, do not mark the entire page. By submitting a response to this solicitation or request, Offeror (1) agrees to the public disclosure of every page of every document regarding this solicitation or request that was submitted at any time prior to entering into a contract (including, but not limited to, documents contained in a response, documents submitted to clarify a response, and documents submitted during negotiations), unless the page is conspicuously marked "TRADE SECRET" or "CONFIDENTIAL" or "PROTECTED", (2) agrees that any information not marked, as required by these bidding instructions, as a "Trade Secret" is not a trade secret as defined by the Trade Secrets Act, and (3) agrees that, notwithstanding any claims or markings otherwise, any prices, commissions, discounts, or other financial figures used to determine the award, as well as the final contract amount, are subject to public disclosure. In determining whether to release documents, the State will detrimentally rely on Offeror's marking of documents, as required by these bidding instructions, as being either "Confidential" or "Trade Secret" or "PROTECTED". By submitting a response, Offeror agrees to defend, indemnify and hold harmless the State of South Carolina, its officers and employees, from every claim, demand, loss,

expense, cost, damage or injury, including attorney's fees, arising out of or resulting from the State withholding information that Offeror marked as "confidential" or "trade secret" or "PROTECTED". (All references to S.C. Code of Laws.)

SUBMITTING REDACTED OFFERS (FEB 2007): You are required to mark the original copy of your offer to identify any information that is exempt from public disclosure. You must do so in accordance with the clause entitled "Submitting Confidential Information." In addition, you must also submit one complete copy of your offer from which you have removed any information that you marked as exempt, i.e., a redacted copy. The information redacted should mirror in every detail the information marked as exempt from public disclosure. The redacted copy should (i) reflect the same pagination as the original, (ii) show the empty space from which information was redacted, and (iii) be submitted on magnetic media. (See clause entitled "Magnetic Media Required Format.") Except for the redacted information, the CD must be identical to the original hard copy. Portable Document Format (.pdf) is preferred. [04-4030-1]

SUBMITTING YOUR OFFER OR MODIFICATION (JANUARY 2006) (a) Offers and offer modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) – (1) Addressed to the office specified in the Solicitation; and (2) Showing the time and date specified for opening, the solicitation number, and the name and address of the bidder. (b) If you are responding to more than one solicitation, each offer must be submitted in a different envelope or package. (c) Each Offeror must submit the number of copies indicated on the Cover Page. (d) Offerors using commercial carrier services shall ensure that the Offer is addressed and marked on the outermost envelope or wrapper as prescribed in paragraphs (a)(1) and (2) of this provision when delivered to the office specified in the Solicitation. (e) Facsimile or e-mail offers, modifications, or withdrawals, will not be considered unless authorized by the Solicitation. (f) Offers submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

TAX CREDIT FOR SUBCONTRACTING WITH DISADVANTAGED SMALL BUSINESSES (JAN 2008):

Pursuant to Section 12-6-3350, a taxpayer having a contract with this State who subcontracts with a socially and economically disadvantaged small business is eligible for an income tax credit equal to four percent of the payments to that subcontractor for work pursuant to the contract. The subcontractor must be certified as a socially and economically disadvantaged small business as defined in Section 11-35-5010 and regulations pursuant to it. The credit is limited to a maximum of fifty thousand dollars annually. A taxpayer is eligible to claim the credit for ten consecutive taxable years beginning with the taxable year in which the first payment is made to the subcontractor that qualifies for the credit. After the above ten consecutive taxable years, the taxpayer is no longer eligible for the credit. A taxpayer claiming the credit shall maintain evidence of work performed for the contract by the subcontractor. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. [02-2A135-1]

TAXPAYER IDENTIFICATION NUMBER (JANUARY 2006): (a) If Offeror is owned or controlled by a common parent as defined in paragraph (b) of this provision, Offeror shall submit with its Offer the name and TIN of common parent.

(b) Definitions: "Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member. "Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(c) If Offeror does not have a TIN, Offeror shall indicate if either a TIN has been applied for or a TIN is not required. If a TIN is not required, indicate whether (i) Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States; (ii) Offeror is an agency or instrumentality of a state or local government; (iii) Offeror is an agency or instrumentality of a foreign government; or (iv) Offeror is an agency or instrumentality of the Federal Government.

WITHDRAWAL OR CORRECTION OF OFFER (JANUARY 2006) Offers may be withdrawn by written notice received at any time before the exact time set for opening. If the Solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for opening. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid. The withdrawal and correction of Offers is governed by S.C. Code Section 11-35-1520 and Regulation 19-445.2085.

II. Instructions To Offerors - B. Special Instructions

SUBMISSION OF QUESTIONS

Mark envelopes on questions mailed:

QUESTIONS: USC-IFB-2746-KS

Title:

Attn.: Kevin Sanders

QUESTIONS MAY BE E-MAILED TO:

ksanders@mailbox.sc.edu

FAXED TO:

803-777-2032

DISCUSSIONS WITH BIDDERS (JAN 2006) After opening, the Procurement Officer may, in his sole discretion, initiate discussions with you to discuss your bid. Discussions are possible only if your bid is apparently responsive and only for the purpose of clarification to assure your full understanding of the solicitation's requirements. Any discussions will be documented in writing and shall be included with the bid.

PREFERENCES - A NOTICE TO VENDORS (SEP. 2009): On June 16, 2009, the South Carolina General Assembly rewrote the law governing preferences available to in-state vendors, vendors using in-state subcontractors, and vendors selling in-state or US end products. This law appears in Section 11-35-1524 of the South Carolina Code of Laws. A summary of the new preferences is available at www.procurement.sc.gov/preferences. **ALL THE PREFERENCES MUST BE CLAIMED AND ARE APPLIED BY LINE ITEM, REGARDLESS OF WHETHER AWARD IS MADE BY ITEM OR LOT. VENDORS ARE CAUTIONED TO CAREFULLY REVIEW THE STATUTE BEFORE CLAIMING ANY PREFERENCES. THE REQUIREMENTS TO QUALIFY HAVE CHANGED. IF YOU REQUEST A PREFERENCE, YOU ARE CERTIFYING THAT YOUR OFFER QUALIFIES FOR THE PREFERENCE YOU'VE CLAIMED. IMPROPERLY REQUESTING A PREFERENCE CAN HAVE SERIOUS CONSEQUENCES.** [11-35-1524(E)(4)&(6)]

PREFERENCES - RESIDENT CONTRACTOR PREFERENCE (SEP 2009): To qualify for the RCP, you must maintain an office in this state. An office is a nonmobile place for the regular transaction of business or performance of a particular service which has been operated as such by the bidder for at least one year before the bid opening and during that year the place has been staffed for at least fifty weeks by at least two employees for at least thirty five hours a week each. In addition, you must, at the time you submit your bid, directly employ, or have a documented commitment with, individuals domiciled in South Carolina that will perform services expressly required by the solicitation and your total direct labor cost for those individuals to provide those services must exceed fifty percent of your total bid price. [11-35-1524(C)(1)(iii)] Upon request by the procurement officer, you must identify the persons domiciled in South Carolina that will perform the services involved in the procurement upon which you rely in qualifying for the preference, the services those individuals are to perform, and documentation of the your labor cost for each person identified. If requested, your failure to provide this information promptly will be grounds to deny the preference (and, potentially, for other enforcement action).

PREFERENCES - RESIDENT SUBCONTRACTOR PREFERENCE (SEP 2009): To qualify for this preference, You must meet the following requirements. (1) You must -- at the time you submit your bid -- have a documented commitment from a single proposed first tier subcontractor to perform some portion of the services expressly required by the solicitation. (2) The subcontractor -- at the time you submit your bid -- must directly employ, or have a documented commitment with, individuals domiciled in South Carolina that will perform services expressly required by the solicitation and the total direct labor cost to the subcontractor for those individuals to provide those services exceeds, as applicable, either twenty percent for a 2% preference or forty percent of bidder's total bid price for a 4% preference. (3) You must identify the subcontractor that will perform the work, the work the subcontractor is to perform, and your factual basis for concluding that the subcontractor's work constitutes the required percentage of the work to be performed in the procurement. [11-35-1524(D)] You can stack this preference, i.e., earn another 2% or 4% preference for each additional qualifying subcontractor, but the preference is capped. [11-35-1524(D)(4), (E)(7)] Upon request by the procurement officer, you must identify the persons domiciled in South Carolina that are to perform the services involved in the procurement upon which you rely in qualifying for the preference, the services those individuals are to perform, the employer of those persons, your relationship with the employer, and documentation of the subcontractor's labor cost for each person identified. If requested, your failure to provide this information promptly will be grounds to deny the preference (and, potentially, for other enforcement action). **YOU WILL NOT RECEIVE THE PREFERENCE UNLESS YOU SPECIFY WHETHER YOUR ARE CLAIMING THE 2% OR 4% PREFERENCE AND YOU PROVIDE THE INFORMATION REQUIRED BY ITEM (3) ABOVE.**

UNIT PRICES REQUIRED (JAN 2006): Unit price to be shown for each item.

III. Scope of Work / Specifications

DELIVERY / PERFORMANCE LOCATION – PURCHASE ORDER (JAN 2006): After award, all deliveries shall be made and all services provided to the location specified by the Using Governmental Unit in its purchase order.

NOTE: Substitutions to equipment list must be approved prior to submitting of bid. Format for proposed substations will list:

- Item Number**
- Line diagram reference**
- Description**
- Manufacturer**
- Model/Part Number**

Proposed Substitution and must include such information and literature to all USC to determine acceptance. USC acceptance or denial of proposes substitution will be final.

DEAD LINE FOR SUBMISSION OF PROPOSED SUBSTITUTIONS IS 2.2.15 AT 12:00 NOON

SECTION 27 41 16 – INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

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1.1. Summary

- A. *The work covered under this section consists of furnishing all labor, material and services to install a complete audiovisual system as shown on the drawings and in these specifications.*
- B. *The Integrator shall do all work which is shown on the drawings, mentioned in the specifications or reasonably implied as necessary to complete the contract for this project.*
- C. *The Integrator is responsible for assessing the conditions of the job site, and facilities for delivering, storing, placing, handling and installing of materials and equipment.*
- D. *The Integrator is responsible for assessing the conditions of the job site including the RF environment for the wireless AV Ethernet network for all AV systems.*
- E. *Failure to assess the site conditions or failure to examine any and all construction documents will in no way relieve the Integrator from the requirement of furnishing all materials and equipment, or performing any work, that may be required to complete the work in accordance with the construction documents.*
- F. *Neglect of above requirements will not be accepted as reason for delay in the work or additional compensation.*
- G. *The Scope includes but is not limited to:*
 - 1. **Equipment and installation labor, including installation of Owner Furnished Equipment (OFE) as noted on the drawings, for a fully functional system**
 - 2. **Miscellaneous components, hardware, interconnections and terminations required for proper operation of all systems**
 - 3. **All components or systems shown on the drawings, referenced in these specifications, or both**
 - 4. **Verification of accuracy and completeness of equipment lists, dimensions, mounting details, and equipment compatibility**
 - 5. **Accurate documentation of the equipment and installation**
 - 6. **Warranty as defined in Paragraph 1.12**
 - 7. **Test equipment, tools, ladders, lifts and scaffolding required for installation**
 - 8. **Daily and final cleanup of debris caused by installation**
 - 9. **Owner training, including provision of manufacturer training for select equipment as defined in Paragraph 3.3.F**

1.2. Definitions

- A. *Unless otherwise noted, the term Owner shall refer to the University of South Carolina (USC)*
- B. *Unless otherwise noted, the term Using Agency shall refer to the USC School of Journalism*
- C. *Unless otherwise noted, the term Architect shall refer to The Boudreaux Group*
- D. *Unless otherwise noted, the term General Contractor shall refer to Palmetto Construction Group, LLC*

- E. Unless otherwise noted, the term Consultant shall refer to Waveguide Consulting, Inc.***
- F. Unless otherwise noted, the term Integrator shall refer to the AV Systems Integrator***
- G. Unless otherwise noted, the term Contract Holder shall refer to the University of South Carolina (USC)***

1.3. Base System Description

- A. This scope of work consists of broadcast studio and control room systems and a digital signage system for the USC School of Journalism.***

- B. Broadcast Studio System***

The Broadcast Studio System shall consist of a main building studio, a greenhouse studio, a control room and various remote connection points including the main building front entrance, the main building rooftop terrace and the courtyard outside the greenhouse studio.

The singular broadcast control room shall be capable of supporting either studio or both simultaneously. Systems shall include cameras and associated equipment, intercom systems, IFB systems, patching, switching, monitoring, broadcast lighting and DMX controls, etc. as shown in the Drawings.

The Greenhouse studio will use polarized film, provided by others, on the external glazing to mitigate shooting direct or back sunlit sets. Matching polarized camera filters and film for flat panel displays shall be provided as part of this scope of work.

This scope of work includes provision of manufacturer training as indicated herein.

- C. Digital Signage System***

The Digital Signage System shall consist of displays, digital signage players, video processing and routing equipment and installation of the same in the main lobby of the new School of Journalism building. The displays shall be provided in groups including the upper media tower element, the lower media tower element and the donor wall displays. The lower media tower displays shall be interactive allowing users to touch the displays and interact with signage content.

In addition to a digital signage player per display, television tuners and feeds from the broadcast control room shall also be provided allowing the routing of various campus cable channels and broadcast program feeds to displays. An additional multi-format input shall also be provided at the head end to allow ad hoc content insertion and routing to signage displays. A feed from the digital signage router shall be provided to the general classroom router (by others) as indicated on the Drawings. The digital signage head end shall be located in the AV master control room (215) on the second floor.

Each side of the lower media tower and the donor wall displays shall be linked together to allow the displays to act as small video walls. Control of this feature, display power, source and destination routing assignments and other system features shall be controllable via a software client on the Owner local area network and via an iOS app on Owner mobile devices connected to the Owner local area network. Computer hardware, mobile devices and iOS apps for this control shall be Owner furnished. Custom control system software, including source code, shall be provided by AV Integrator as defined herein.

An allowance shall be provided for the digital signage players, the make and model of which will be coordinated after award. An allowance shall also be provided for the millwork associated with the lower media tower element to allow final coordination of finishes to occur through the submittal process after award.

1.4. Allowances

- A. Media Tower Lower Element Allowance – An allowance of \$30,000 shall be included in the base bid for the media tower lower element custom kiosk as detailed in Details 1-3 on Sheet AV551.***
- B. Digital Signage Players Allowance – An allowance of \$25,000 shall be included in the base bid for the digital signage players shown on Sheet AV410.***

1.5. Regulatory Requirements

- A. All equipment and installations under this contract shall conform to the following:*
 - 1. ANSI/NFPA 70 National Electrical Code.*
 - 2. ANSI/IEEE C2 National Electrical Safety Code TIA/EIA Standards 568 A (including TSB 67), 569 and 607.*
 - 3. IEEE/ANSI 142 1982 Recommended Practice for Grounding of Industrial and Commercial Power Systems.*
- B. Integrator shall be solely responsible to possess or obtain all permits and certificates required to complete this project.*
- C. Integrator and employees shall perform all work in compliance with current Occupational Safety and Health Administration (OSHA) guidelines and regulations.*

1.6. Contractor Qualifications

- A. AV Integrator shall be a company specializing in the installation of audiovisual systems with a minimum of five years documented experience on similar projects.*
- B. Must be an authorized reseller of all solutions being furnished and installed in order to meet the requirements for the extended warranty and service programs.*
- C. Must hold a current business license within South Carolina and must be verifiable for good standing.*
- D. Contractor must have a current affiliation with InfoComm and/or NSCA.*
- E. Contractor must have satisfactorily completed (3) projects within the past 5 years of similar scope and amount.*
- F. The selected AV Integrator shall provide a Project Manager to act a single point of contact for all activities performed under this section.*
- G. The selected AV Integrator shall designate a Lead Designer who must have sufficient experience in this type project(s) as to be able to lend adequate technical support to the field forces during installation, during the warranty period and during any extended warranty periods or maintenance contracts.*
- H. The AV Integrator must attach a resume of the Project Manager and Lead Designer to the AV Integrator's Project Plan submittal for evaluation.*
- I. The Project Manager, or designee thereof, shall be required to attend project meetings as required until project closeout/signoff.*
- J. Should the Project Manager or Lead Designer assigned to this project change during the project, the new Project Manager or Lead Designer assigned must meet all qualifications stated in this section, and must also submit a resume for review by the Consultant.*
- K. If, in the opinion of the University of South Carolina, the Project Manager or Lead Designer does not possess adequate qualifications to support the project, the University of South Carolina reserves the right to require the AV Integrator to assign another individual whom, in the Owner's opinion, possesses the necessary skills and experience required of this project.*

- L. *AV Integrator must designate a Crestron DigitalMedia Certified Engineer (DMC-E) who will remain assigned for the duration of the project.*

1.7. Related Work

- A. *The Integrator shall coordinate with other trades and interface with other base building systems to ensure proper integration and operation of AV systems. The Integrator should request from the Owner, General Contractor or Architect complete project design drawings and specifications to coordinate their work with the work of others.*
- B. *The Integrator shall coordinate with the General Contractor to establish AV room ready dates. See Appendix C.*
- C. *A representative of the Integrator shall attend the weekly construction meeting at the job site. This representative shall have the authority to make commitments on behalf of the Integrator.*
- D. *Refer to Appendix A for specific system demarcations between the Integrator and other trades.*
- E. *AV system and control system software.*
 - 1. *Integrator shall design all graphical user interface (GUI) design for all AV control touch screens for the AV systems noted in these specifications and on the drawings. The Integrator shall review these designs with the Owner and Consultant for approval.*
 - 2. *Integrator shall create all customized code for all control systems noted in these specifications and on the drawings.*
 - 3. *Integrator shall load software and configuration files into all programmable AV and control system devices.*
 - 4. *Integrator shall set up and configure all programmable AV and control system devices as specified in Paragraph 3.2 and as directed by the University of South Carolina.*

1.8. References

- A. *InfoComm International; AV Installation Handbook - The Best Practices for Quality Audiovisual Systems, copyright 2008.*
- B. *IEEE 802.11G/802.11B Wireless Site Survey by AMX Corporation: Guide for Performing a Site Survey: www.amx.com/techsupport/Applications/Wireless_Site_Survey_GuideAdobe.pdf*
- C. *Guide for Performing a Wireless Site Survey 2.4 GHz IEEE 802.11g/802.11b/802.15.4 by AMX Corporation: www.amx.com/assets/whitePapers/AMX.Wireless.Site.Survey.Guide.pdf*

1.9. Project/Site Conditions

- A. *Refer to Division 1 of the general construction documents for this project for coordination with other trades on this project.*
- B. *Coordinate all access to the site at all times with the General Contractor and the Owner.*
- C. *Adhere to the safety standards established by the General Contractor and the Owner while performing work on site.*

- D. *All employees of the Integrator shall wear identification clearly indicating the Integrator's company while on site.*
- E. *All employees of the Integrator shall comply with rules and policies established by the Owner.*
- F. *All vehicles of the Integrator or employees shall be parked in areas designated by the Owner.*
- G. *Store equipment in a manner that will not interfere with others. Coordinate secured storage at the site with the General Contractor and the Owner.*
- H. *Do not install equipment in any space not designated by the General Contractor as "AV room ready". See Appendix C.*
- I. *Protect all work and equipment installed under this contract from damage by others.*
- J. *Protect all existing work in place by others from damage by the Integrator, the Integrator's agents/sub Integrators, or any employees, agents or sub Integrators of the Integrators vendors. The Integrator will be solely responsible for any/all damage to work in place by others.*
- K. *Keep areas around and inside of each piece of equipment and each rack free from dust, dirt and debris throughout the project. Equipment that is not properly maintained during installation shall be replaced at no cost to the Owner before final payment is made to the Integrator.*
- L. *All equipment and materials stored at the Integrators facility(s) or stored and/or installed at the project site will remain the property of the Integrator unless ownership is specifically assumed in writing by the Owner. The Integrator shall be solely responsible for the protection of all equipment from damage, theft or vandalism regardless of cause, until ownership is specifically assumed in writing by the Owner or the work described herein is accepted by the Owner at the time of official turnover.*

1.10. Requirements Specific to This Project

- A. *None.*

1.11. Submittals

A. General

1. Unless directed otherwise in writing by the University of South Carolina, the Integrator is not authorized to proceed with the acquisition, assembly or installation of any systems or components until the submittals outlined in this Section have been approved by the University of South Carolina. Any acquisition, assembly or installation of any systems or components without the University of South Carolina's approval will be subject to removal at the Integrator's expense.
2. A submittal package consists of all items (forms, lists, drawings, etc.) specified for that submittal.
3. All specified items for each submittal shall be provided at the same time. Partial or incomplete submittals will be rejected.
4. The Integrator shall coordinate with the University of South Carolina prior to the delivery of each Submittal to obtain the proper quantities of submittals to each recipient.

5. Refer to Paragraph 1.11.C.2.i for deadlines for each submittal.
6. Product cut sheets shall not be submitted for products listed in Part 2 or Appendix F of this specification.
7. Product cut sheets shall be submitted for all products provided by the Integrator that are not listed in Part 2 or that are indicated as "Equal as Approved" or "Or Equal" in Appendix G of this specification.
8. Product cut sheets shall accompany all requests for product substitutions for any reason.
9. Provide samples of each label type to be used. See Paragraph 3.2.D.
10. Architect will notify Integrator if any sample products are required for fit or finish coordination. Samples shall be provided by the Integrator at no additional cost to the project, University of South Carolina or Architect.
11. The Integrator's drawings shall conform to the following.
 - a. Fonts must be legible (suggested minimum 1/16" on 11x17 prints)
 - b. CAD files must be exportable to Autodesk Drawing (.dwg) format.
 - c. AV plans for indicating AV equipment layouts shall be scaled to be not less 1/8" = 1'-0". Details for particular equipment mounting shall be scaled to be not less than 1/4" = 1'-0".

B. Weekly Status Reports:

1. The Integrator shall provide weekly status reports using the Consultant's "Weekly Status Report" form noted in Appendix B (or equivalent form approved by the Consultant).
2. Weekly status reports shall be provided at least one business day prior to each weekly Owner's meeting from the date of the Letter of Intent to Award until the Contract Closeout.
3. These reports shall be provided to the Architect, General Contractor and Consultant via email.
4. The Weekly Status Report shall not be used as an official means of communications. It does not replace any part of a submittal, request for information, proposed change order, report of field conditions, schedule issues, etc. No official response will be given to the Weekly Status Report.

C. Project Plan Submittal:

1. Submit project team list. Include names and all contact information (email address, cell phone, etc.) for the Integrator's Project Manager, Lead Engineer, Lead Installer and any other pertinent team members. Include names and contact information for all sub-contractors.
2. Submit project schedule in both Portable Document Format (.pdf) and native file formats.
 - a. Include all milestones listed below as well as other significant milestones, activities or deadlines by others that may impact the project schedule.
 - b. Integrator shall revise and keep the schedule current and accurate throughout installation and shall publish updated schedules as required
 - c. Include shop rack assembly, on-site cable installation, all staging, on-site equipment installation and all Consultant verifications.
 - d. Schedule shall be coordinated with the general construction schedule and shall include the General Contactor's anticipated AV room ready dates and completion date of lighting presets programming where applicable - Appendix C.
 - e. Schedule shall meet the anticipated first use of the Owner with adequate time allowed for setup, verification and punchlist correction of all systems.
 - f. Indicate the sequence and anticipated dates of acquisition of major equipment and installation milestones.

- g. Indicate the sequence of installation and completion by room and/or system.
- h. Work shall not commence without the approval of the General Contractor and the Owner.
- i. Below are anticipated project milestones target dates. Note that while milestones may vary due to site or other conditions the anticipated first use date will not change without written approval of the Owner.

MILESTONE / DELIVERABLE	CALENDAR DAYS OR SPECIFIC DATE	SPECIFICATION PARAGRAPH REFERENCE
Project Plan Submittal	5 days after Letter of Intent	1.11.C
Long Lead Equipment Submittal	10 days after Letter of Intent	1.11.C
Sample Drawing Submittal	10 days after Letter of Intent	1.11.E
Full Project Submittal	TBD by Integrator	1.11.F
Shop Staging for Digital Signage System	TBD by Integrator	3.3.B
Full Verification	TBD by Integrator	3.3.D
Final Verification / Training	TBD by Integrator	3.3.E/3.3.F
First Use	06/26/2015	-
Contract Closeout	07/27/2015	3.4

D. Long Lead Time Equipment Submittal:

1. Submit a list of long lead items.

- a. These are items that must be ordered before Full Project Submittals are due to not adversely impact the project schedule.
- b. Do not include equipment that will be ordered later.
- c. This list shall be in the format of the equipment list noted in Appendix G.

2. The Integrator shall use reasonable judgment as to which products are legitimate long lead items.

3. Failure to include an item that may require long lead time shall not relieve the Integrator of the responsibility of furnishing said item to meet the project schedule.

E. Sample Drawing Submittal:

1. The Integrator shall submit sample drawings in Portable Document Format (.pdf) for the Digital Signage System for approval of the Integrator's drawing style and detail methodology.

2. Include all information required in Paragraph 1.11.A. and Appendix F.

F. Full Project Submittal:

1. Equipment list in the form of Appendix G. Provide in Portable Document Format (.pdf).

2. Shop drawings

- a. All sheets shall be the same size, oriented the same direction, and shall be bound, not folded. Provide electronic copies in Portable Document Format

(.pdf). Verify hard copy quantity with University of South Carolina prior to submittal.

- b. All information required in Paragraph 1.11.A. and Appendix F shall be included
 - c. All information and corrections from the sample drawing review shall be included.
3. **Product cut sheets and samples as specified in Paragraph 1.11.A. Provide in Portable Document Format (.pdf).**
 4. **See Appendix E for details regarding control system user-interface submittals.**

G. Shop Staging Verification Notification:

1. **Five business days prior to the shop staging verification by the University of South Carolina the Integrator shall provide notification to the University of South Carolina stating that all systems listed in the schedule Paragraph 1.11.C.2.i, meet all conditions listed in Paragraph 3.3.B.**
2. **Notification shall be in accordance with Appendix D.**

H. Not used.

I. Full Verification Notification:

1. **Five business days prior to full verification by the University of South Carolina the Integrator shall provide notification to the University of South Carolina stating that all rooms listed in Paragraph 3.3.D meet all conditions listed in Paragraph 3.3.D.**
2. **Notification shall be in accordance with Appendix D.**

J. Final Verification Notification:

1. **Five business days prior to final verification by the University of South Carolina the Integrator shall provide notification to the University of South Carolina stating that all rooms listed in Paragraph 3.3.E meet all conditions listed in Paragraph 3.3.E.**
2. **Notification shall be in accordance with Appendix D.**

K. Preliminary Project Record Documents Submittal

1. **The Integrator shall submit preliminary project record documents at final verification.**
2. **Preliminary project record documents shall:**
 - a. Be based on corrected/updated shop drawings.
 - b. Include an updated equipment list in the form of Appendix G.
 - c. Include half size drawings modified to reflect the actual installation.
 - d. Include a CD-ROM with manufacturer's operation manuals arranged alphabetically, and current drawings Autodesk Drawing (.dwg) format, current DSP configuration and control software files.

L. Project Record Documents Submittal

1. **Within 30 days following final verification, the Integrator shall submit complete project record documents.**
2. **Project record documents shall include corrections and markups from the preliminary project record documents.**
3. **Project record documents shall consist of:**
 - a. Full size record drawings
 - 1) *drawings shall meet all requirements listed in Paragraph 1.11.A.*
 - 2) *drawings shall be based on approved Preliminary Project Record Documents.*
 - 3) *drawings shall show the actual "As Built" condition of all AV systems. Include all information listed in Appendix F.*

- 4) *All calculated figures shall be replaced with field verified values.*
 - 5) *All equipment "as left" settings and adjustments shall be indicated on drawings. Include all information listed in Appendix F.*
- b. Product information binders shall consist of the following information, with section dividers.
- 1) *Title page and table of contents*
 - 2) *Warranty Statement*
 - 3) *Provide a one year system warranty as indicated in Paragraph 1.12. Indicate warranty start and end dates, scope of warranty and conditional limitations. Indicate excluded items.*
 - 4) *Indicate procedure for obtaining telephone support and onsite service. Include a list indicating Integrator's name, address, e-mail address and service department telephone number.*
 - 5) *Equipment List: Final equipment list broken out per room with serial numbers for each device. Include the ending date of the manufacturer's warranty period for each product.*
 - 6) *Equipment manuals: Alphabetically arrange manufacturer's operation manuals*
 - 7) *Key schedule with three duplicates of each key required for operation of the systems*
 - 8) *Half-size set of Record drawings*
- c. Provide electronic copies to the Owner of the following:
- 1) *Software based control system code (user interface software and program)*
 - 2) *All custom or purpose created software, including original source code written with remark statements to document function of sub routines, macro's and program requirements*
 - 3) *All DSP and specific device application software in its final configuration*
 - 4) *All equipment "as left" settings, levels, and adjustments indicated on drawings*
 - 5) *Final equipment list with warranty and serial number information as noted in Paragraph 1.11.L.3.b.5)*
 - 6) *Record drawings in Portable Document Format (.pdf) format*
 - 7) *Record drawings in Autodesk Drawing (.dwg) format*

1.12. Warranty

- A. *Provide warranty repair or replacement for one year on all products provided by the Integrator (including products having a manufacturer's warranty of less than one year) and all Integrator workmanship at no additional cost, except in case of obvious abuse. Consumable items such as lamps, batteries, tapes, etc. are not covered.***
- B. *During the warranty period the Integrator shall:***
- 1. *Provide telephone support within 4 hours of a call requesting service.***
 - 2. *Provide onsite support within 24 hours of a call requesting service that was not corrected by telephone support.***
 - 3. *Repair or replace faulty items within 72 hours of on-site service or within manufacturers' specific repair program whichever is quicker.***

- C. *Integrator shall not involve the Owner or Using Agency with removing, re installing equipment, shipping or receiving equipment being repaired under warranty, nor shall the Owner or Using Agency be responsible for any shipping or freight charges associated with any item under warranty.*
- D. *Both the Consultant and the Owner or Using Agency shall be copied with all paperwork related to any/all warranty work during the Warranty period.*
- E. *The Warranty Period will commence no sooner than the date of first beneficial use by the Owner or Using Agency (whoever is first) and no later than the date of Contract Closeout.*

PART 2 - Products

2.1. General

- A. *Acceptable Products are listed below and in Appendix G and establish the basis for design for the AV systems.*
- B. *Specified products establish the basis for design however an equivalent product by another manufacturer may be submitted for approval where noted in Appendix G. Products specified are not intended to limit the selection of equal products from other manufacturers; however, the design and technical intent shall conform to the functional, technical and reliability requirements.*
- C. *Integrator shall be fully responsible for making a substitute product match the requirements, description and functionality of the originally specified product regarding all options, accessories and external interface requirements.*
- D. *Where a comparable product by another manufacturer is listed but a specific model number is not indicated, the comparable product must meet all listed specifications of the primary specified product as a minimum, and the primary specified product (manufacturer and model number) shall be used as the basis of design.*
- E. *All products shall be new and under warranty at the time of installation. B-stock, previously installed, refurbished or used equipment shall not be provided on this project.*
- F. *All products shall be new and under warranty at the time of installation.*
- G. *Where the specification lists several manufacturers for a major item, or group of items, the Integrator shall provide all of those items from one manufacturer (i.e., all Type A loudspeakers shall be brand "X" not a combination of brands "X" and "Y").*
- H. *The Integrator shall provide all options, accessories and hardware necessary to meet the function of the design even if they are not specifically listed (e.g., rack mount kits, separate or additional power supplies, input modules, transformers, etc.).*
- I. *The acceptability of a proposed substitution shall be considered under the following terms listed in the "Substitutions" column of Appendix G:*
 - 1. *The term "No Substitutions" shall denote that only the listed product(s) are acceptable and no substitutions will be considered or approved.*

2. The term "Equal as Approved" shall denote that equivalent products will be considered as substitutes for the specified products.
 3. The term "Or Equal" shall denote that functionally equivalent products shall be acceptable without written approval by the University of South Carolina.
- J. Where a specified item has been discontinued by the manufacturer and/or replaced by a new model, the University of South Carolina may require submission of the new model for evaluation prior to acceptance as a substitute.*
- K. Product substitution is allowed only by expressed written consent of the University of South Carolina and only before the Bid is received.*
- L. Unless a specified product has been discontinued by the manufacturer, there shall be no product substitution after the issuance of the Contract Award, Notice to Proceed, or Letter of Intent to Award, whichever is earlier.*
- M. The Integrator is solely responsible for the completeness and accuracy of take-offs and bids.*
1. Appendix G is the University of South Carolina's good faith effort to provide an AV equipment list based on the drawings and specifications. However, Integrators are cautioned that the list may not be complete, may have discrepancies against the drawings, and may not indicate all pertinent information required to prepare an accurate bid.
 2. Determination of final quantities to meet the function of the design shall be the sole responsibility of the Integrator.

2.2. Device Plates

A. Wall / Floor/ Ceiling Mounted Device Plates:

1. NEMA gang type plates shall be standard or jumbo size as required at each plate location.
2. Plates larger than NEMA 2-gang type plates shall be 1/8" aluminum or 1/16" stainless steel.
3. All plates shall be sized to cover the mounting box and rough opening.
4. All text and graphics shall be engraved.
5. Finish to be approved by Architect.
6. Connectors shall be fixed to plates and panels using screws and nuts, or by using the mounting method integral to the connector. Rivets are not acceptable.
7. Detailed drawings of plates panels showing information required in Appendix F shall be submitted prior to fabrication. No exceptions.
8. Provide blank plates with approved finish for ALL AV System wall, floor and ceiling boxes that do not have receptacles.
9. At all non connectorized pass-throughs provide a secured grommet in ceiling, wall or plate.
10. Acceptable manufacturers
 - a. ProCo Plateworks® / Captain NEMA®, RCI, Wireworks, Whirlwind, Panel Authority, Panel Crafters
 - b. Integrator

B. Rack Mounted Panels

1. Rack panels with connectors, switches, controls, etc., shall be 16-gauge, flanged construction.
2. All text and graphics shall be engraved.
3. Finish shall match rack unless noted otherwise.
4. Detailed drawings of panels showing information required in Appendix F shall be submitted prior to fabrication. No exceptions.

5. Acceptable manufacturers

- a. ProCo Plateworks® / Captain NEMA®, RCI, Wireworks, Whirlwind, Panel Authority, Panel Crafters
- b. Integrator

2.3. Fixed Installation Cable

A. General:

1. Following are cable types for fixed installation within the base building raceway and within fixed AV equipment racks. Unless specifically noted elsewhere, these are NOT acceptable for user interface cables used in lecterns/ credenzas or for connection of portable equipment.
2. Do not exceed cable manufacture's pull-force or bend radius recommendations.
3. All cable used on this project shall be rated for plenum use unless specified otherwise.
4. All speaker cable shall be sized by the Integrator to produce less than 1dB of loss in the speaker/cable circuit.
5. All video cable shall be sized by the Integrator to meet the criteria listed in Paragraph 3.3.
6. Integrator shall select the proper STP/UTP cable type (Cat 5, Cat5e, Cat6, "media"/"low skew", etc.) for correct operation of AV over STP/UTP equipment. Consult with manufacturer for their recommended cable type.

B. EIA/TIA rated Category 6 STP, Plenum rated:

1. Liberty Cables: 24-4P-P-L6SH-* (* indicates cable color)
2. Comparable product by Belden, Comm/Scope, Gepco, West Penn.

C. EIA/TIA rated Category 6 STP, Non-Plenum rated

1. Liberty Cables: 24-4P-L6SH-* (* indicates cable color)
2. Comparable product by Belden, Comm/Scope, Gepco, West Penn.

D. AMX or Crestron Control Cable: Two pair - one pair shielded, one pair unshielded. Unshielded pair #18 AWG; shielded pair #22 AWG. NOTE: Also acceptable for use within lecterns.

1. Liberty AXLINK-P
2. Comparable product by West Penn Wire, Belden.

E. Mic or Line Level Signal: Single twisted pair, overall shield, #22 AWG.

1. Liberty 22-2C-PSH-WHT
2. Comparable product by West Penn Wire, Belden, Gepco.

F. Mic or Line Level Signal with Pair for Contact closure: Two pair- one pair shielded, one pair unshielded. Both pair #22 AWG.

1. Liberty 22-2P-PINDSH-WHT
2. Comparable product by West Penn Wire, Belden, Gepco.

G. Speaker Level: 16/2 UTP with overall jacket.

1. Liberty 16-2C-TTP-* (* = color designator)
2. Comparable product by West Penn Wire, Belden, Gepco.

H. Speaker Level: 14/2 UTP with overall jacket.

1. Liberty 14-2C-TTP-* (* = color designator)
2. Comparable product by West Penn Wire, Belden, Gepco.

I. Speaker Level: 12/2 UTP with overall jacket.

1. Liberty 12-2C-TTP-* (* = color designator)
 2. Comparable product by West Penn Wire, Belden, Gepco.
- J. *Speaker Level: 10/2 UTP with overall jacket.***
1. Liberty 10-2C-TTP-WHT
 2. Comparable product by Belden.
- K. *RG8 (50 Ohm) Non-Plenum:***
1. Liberty Cables: RG8-CMR-BLK
 2. Comparable product by West Penn Wire, Belden, Gepco
- L. *RG8 (50 Ohm) Plenum:***
1. Belden Cables: 89913
 2. Comparable product by West Penn Wire, Belden, Gepco
- M. *Wireless Mic Antenna Coax Cable (less than 75'): RG-58/U***
1. Liberty RG58-CMP-WHT
 2. Comparable product by West Penn Wire, Canare, Gepco, Comm/Scope.
- N. *Base Band Video Cable: RG-59/U***
1. Liberty RG59-CCTV-PL-WHT
 2. Comparable product by West Penn Wire, Belden, Canare, Gepco, Comm/Scope.
- O. *CATV, MATV, or CCTV Trunk Line: RG-11/U Quad Shield***
1. Liberty RG11-QUAD-PL-WHT
 2. Comparable product by West Penn Wire, Canare, Gepco, Comm/Scope.
- P. *CATV, MATV, or CCTV Drop Line: RG-6/U Quad Shield***
1. Liberty RG6-QUAD-CMP-WHT
 2. Comparable product by Belden, Canare, Gepco, West Penn Wire, Comm/Scope.
- Q. *Super High Resolution RGBHV Cable: Five (5) RG-59 super high resolution coax cables, in an overall jacket.***
1. West Penn WP258195
 2. Five (5) West Penn WP25819
 3. Comparable product by Belden. Canare, Gepco, Comm/Scope, Liberty.
- R. *ASE/EBU Cable: Plenum***
1. Liberty Cables: 24-1P-P-DIG-AUDIO
 2. Comparable product by Belden, Canare, Gepco, West Penn Wire, Comm/Scope
- S. *ASE/EBU Cable: Non-Plenum***
1. Liberty Cables: 24-1P-DIG-AUDIO
 2. Comparable product by Belden, Canare, Gepco, West Penn Wire, Comm/Scope
- T. *HD, SDI, and video tie lines: RG-6/U***
1. Belden 1695A
 2. Comparable product by Liberty, Extron, Canare, Gepco, West Penn Wire, Comm/Scope
- U. *HDMI Cable male to male. Lengths as required.***
1. Keydigital KD-HDBC*
 2. Comparable product by Liberty.
- V. *Plenum HDMI Cable male to male. Lengths as required.***

1. Liberty P-HDM-M
 2. Comparable product by Atlona.
- W. *DVI Cable male to male. Lengths as required.***
1. Extron DVID DL Pro/*
 2. Comparable product by Atlona.
- X. *DisplayPort Cable male to male. Lengths as required.***
1. Extron DisplayPort M-M/*
 2. Comparable product by Atlona.
- Y. *General Control Cable: Plenum rated, AWG, number of conductors, pairs and/or shield depending on specific control function (e.g., IR, RS 232, dry closure, etc.).***
1. Liberty model # as required to meet functionality
 2. Comparable product by Belden, Gepco, West Penn Wire, Comm/Scope
- Z. *Lectern, credenza, cart and portable cables:***
1. Use highly flexible, pre made or molded cables.
 2. Select AWG, number of conductors, pairs and/or shield as required depending on specific function.
 3. Acceptable Manufacturers: Bi Tronics, HOSA, Mogami, Extron, Canare, MarkerTek, Tek Net, Comprehensive or HAVE.
- AA. *Additional cable types as required. Cable type shall be approved by the University of South Carolina prior to use.***

2.4. Pre-Manufactured and Adapter Cables

- A. *VGA Cables with Audio:***
1. Extron: MVGA-A-M-M/* (* indicate cable length 3', 6', 12')
 2. Comparable by Liberty Cables
- B. *VGA Cables:***
1. Extron: Model: MVGA M-M/* (* indicate cable length 3', 6', 12')
 2. Comparable by Liberty Cables
- C. *HDMI Cables:***
1. Extron: HDMI Ultra/* (* indicate cable length 6', 9', 12', 15')
 2. Comparable by Key Digital:
- D. *Audio Cables w 1/8" TRS:***
1. Extron: A-Mini/* (* indicate cable length 2', 6', 12')
 2. Comparable by Liberty Cables
- E. *Toslink Optical Cable:***
1. Liberty Cables: Z500NTOS* (* indicate cable length 1', 7', 13', 20', 33', 50')
 2. Comparable by Comprehensive
- F. *SPDIF Cable:***
1. Liberty Cables: 20 SD-RCAM-M-* (* indicate cable length 3', 20', 25', 35')
 2. Comparable by Extron

2.5. Connectors

- A. *1/4 Inch Cable Connectors: Non long frame type.***

1. Neutrik "NP" Series
 2. Comparable product by Switchcraft.
- B. *BNC Cable Connectors: 3 piece, true 75Ω crimp type.***
1. Acceptable manufacturers: Kings, Liberty, Extron, Canare, ADC, Trompeter, Cambridge
 2. Connector shall be compatible with cable type.
- C. *Loudspeaker Cable Connectors: 4 or 8 pole.***
1. Neutrik Speakon NL4FC or NL8FC
 2. Comparable product by Switchcraft.
- D. *IHF (RCA) Audio Cable Connectors: For all IHF (RCA) audio jacks, gold center pin, spring type strain relief.***
1. Canare F 09
 2. Comparable product by Switchcraft.
- E. *IHF (RCA) 75Ω Video Cable Connectors: For all IHF (RCA) video jacks.***
1. Canare RCAP C series
 2. Comparable product by Trompeter
 3. Connector shall be compatible with cable type and shall be installed using factory approved tool and die.
- F. *XLR Cable Connectors: Number of pins as required.***
1. Black shell with gold pins, unless otherwise noted.
 2. Neutrik "XX" series
 3. Comparable product by Switchcraft
- G. *3-pole XLR with 1/4" Panel Connectors, non-switching, solder cups: All conductors shall be insulated from panel.***
1. Neutrik NCJ6FI-S
 2. Comparable product by Switchcraft
- H. *Recessed BNC Panel Connectors: Shield shall be insulated from panel, shell finish to match adjacent surfaces.***
1. Neutrik NBB75DFIB
 2. Comparable product by Canare
- I. *Non-recessed BNC Panel Connectors: Shield shall be insulated from panel, shell finish to match adjacent surfaces.***
1. Neutrik NBB75FI
 2. Comparable product by Canare (with insulating washers) for floor boxes (non recessed).
- J. *Loudspeaker Panel Connectors: 4 or 8 pole.***
1. Neutrik Speakon NL4MP or NL8MP
 2. Comparable product by Switchcraft
- K. *IHF (RCA) 75 Ohm Video Panel Connectors: Shield shall be insulated from panel. Color code as shown on the drawings.***
1. Canare RJ RU
 2. Comparable product by Switchcraft.
- L. *RJ 45 Panel Connectors: Recessed Cat 5 or Cat 5e compliant, 8 contacts, Latch hook Retention of RJ45 plugs, 110 Punch down IDC terminals on rear.***

1. Neutrik NE8FAV Y110
2. Comparable product.

M. XLR Panel Connectors: Black shell, gold pins.

1. Neutrik "D" Series
2. Comparable product by Switchcraft.

N. 3.5mm (1/8") Cable Connectors: Mini TRS for balanced mono audio or unbalanced 2 channel audio.

1. Canare F-12
2. Comparable product by Switchcraft.

O. BNC Terminators: 75Ω, 1%.

1. Canare BCP *
2. Comparable product by Trompeter, ADC.

2.6. Racks and Rack Accessories

A. All accessories shall be from the same manufacturer as the rack enclosure.

B. Provide the following accessories for each rack shown on the drawings.

1. Side panels for each individual rack or for end racks of each group of racks.
2. Solid or fan top as shown on the drawings and solid rear door.
3. Grounding stud in top rear of rack.
4. Full-height rear mounting rails
5. Full-height solid copper bus bar bonded to rack.
6. Rack work light.
7. Horizontal lacing bars (as required).
8. Blank panels as necessary to close front of rack.
9. Vents, blowers, fans and fan packs as necessary to properly dissipate heat.
10. Power distribution as required.
11. Caster base as shown on the drawings or as dictated by field conditions.

PART 3 - Execution

3.1. Preparation

A. Before starting installation, verify proper installation of the following:

1. Backboxes and conduit— installed per the drawings and these specifications.
 - a. Stub outs finished with j boxes or insulated bushings on end of conduit.
 - b. Pull boxes installed per NEC based on total number of turns and angles and on linear feet of conduit.
 - c. Pull strings inside all conduits.
2. 120VAC power circuits, isolated ground conductors and equipment ground conductors.
3. Fixed millwork.
4. Cable tray.
5. Supports or blocking for flat panel displays.

B. Copies of these specifications and approved shop drawings shall be readily available for all in shop and on site integration work.

C. Provide written notification to the General Contractor and University of South Carolina of any problems impacting the Integrator's work. Failure of the

Integrator to notify the General Contractor and University of South Carolina in a timely manner of incomplete, inadequate, unfinished, or otherwise unacceptable pre requisite work by other trades in the base building infrastructure will not relieve the Integrator of the responsibility to complete the work under this contract.

3.2. Installation

A. General:

1. All equipment and enclosures described in this specification shall be installed plumb and square unless specifically detailed otherwise.
2. All equipment, except that designated as movable, portable or loose equipment, shall be secured and permanently attached to racks or structure in a manner which will require the use of a tool (e.g., screw driver, nut driver, etc.) for removal.
3. All supports shall meet or exceed the load requirements of the intended application with a minimum safety factor of five.
4. Support hardware shall have SAE Grade 8 load rating (min.).
5. All equipment mounted overhead that has a composite weight, including mounting hardware and brackets, of forty pounds or more shall be mounted using plans and specifications approved by a licensed structural engineer. All fees and expenses related to structural approval shall be paid by the Integrator.
6. All equipment mounted in wall that has a composite weight, including mounting hardware and brackets, of two hundred pounds or more shall be mounted using plans and specifications approved by a licensed structural engineer. All fees and expenses related to structural approval shall be paid by the Integrator.

B. Firmware

1. The Integrator shall install the firmware versions selected by the Consultant for all programmable or configurable devices.
2. The Integrator shall be responsible for up to two additional firmware changes per device until project closeout.
3. Integrator shall notify the University of South Carolina prior to any change of firmware in any programmable or configurable device until the Integrator is released from all installation and warranty responsibilities.

C. Equipment Racks, Conduit, and Raceways

1. **Electrical power distribution**
 - a. Provide labels on receptacles within AV racks indicating branch panel and circuit number.
 - b. See the drawings for details of power raceway entering and mounting inside rack.
2. Provide a full height, technical ground bus bar in each equipment rack, mount adjacent to the power raceway and electrically bond to rack.
3. Install rack mounted equipment as indicated on the approved AV shop drawings, and make connections within the racks before delivery to job site.
4. Provide insulated connections between the building electrical raceway and the equipment racks.
5. Provide insulated connections between the AV raceway and the equipment racks.
6. Provide EMT stubs, with insulated bushings to protect cable, into the above ceiling area for routing cable into the equipment racks.
7. Segregate circuit types as noted in Paragraph 3.2.F.2.
8. Do not exceed 40% conduit fill.

D. Labeling

1. **General**
 - a. Handwritten labels are not acceptable.
 - b. Do not indicate the Integrator's name on movable, portable or loose equipment, touch panels, cables, or wall plates.
 - c. Integrator's name may be displayed on rack panel only as shown on the drawings.
 - d. Label type, text and graphics shall be approved by the University of South Carolina before fabrication of labeling, plates or other labeled items.
 - e. All labels shall be legible.
2. **Provide permanent, self-adhesive labels on the front panel of rack mounted equipment to indicate system designation/functionality (e.g., Automixer 3, Press Feed ADA, Speech Amp-Zone A, etc.).**
3. **Provide permanent, self-adhesive labels on the back of rack mounted equipment.**
 - a. Indicate system designation/functionality.
 - b. Text shall be identical to equipment front panels.
 - c. Indicate IP address for all networked equipment located in secured racks or locations.
 - d. Phone number.
4. **Provide permanent label on plug end of power cords of all rack mounted equipment identifying the power cord with the equipment.**
5. **Provide labels for front panel input and output buttons of AV routers, switches, mixers, etc.**
6. **Provide text/graphics engraved directly on receptacle plates, panels, and rack panels.**
 - a. Use eighth inch letters with contrasting fill color.
 - b. Label all plate mounted connectors and receptacles as shown on approved shop drawings
 - c. Label plates with plate designation shown on approved shop drawings.
7. **For all installed wiring provide permanent labels using wire numbers or designation as shown on approved shop drawings.**
 - a. Wire labels shall be one of the following types
 - 1) *Self-adhesive label under clear heat shrink,*
 - 2) *Direct printed heat shrink*
 - 3) *Direct printed, self-adhesive, self-laminating*
 - b. Position labels as shown in wiring standard details on the drawings.
 - c. Provide wire labels on both ends of cable.

E. Wiring

1. **Do not make any in line cable splices unless specifically noted.**
2. **Use only cable pulling lubricants approved by the cable manufacturer.**
3. **Provide grommets or chase nipples at cable entry where conduit is not installed.**
4. **Provide cable anchors for any cable or cable bundle larger than 1 inch diameter, permanently installed and not in conduit. Do not use sticky back cable anchors.**
5. **Provide a service loop for each cable that connects to equipment in racks or AV furniture. Service loop length shall be sufficient to allow one re-termination without removing cable ties.**
6. **All cables connecting to a movable lectern, cart, or desk or lectern shall be highly flexible cable, specifically designed by the manufacturer to be flexed repeatedly. Permanent install type cable is not acceptable for this application.**

7. All cable bundles of more than one cable connecting to a movable lectern, cart, or desk or lectern shall be enclosed in a flexible braided sleeve and be of the minimum length extending from the furniture edge as noted on the drawings.
8. The Integrator shall take precautions to ensure that cabling is not kinked, compressed or otherwise damaged such that performance is compromised.
9. Bend radius shall not be less than recommended by the cable manufacturer.
10. Do not exceed the maximum permissible pulling tension. Consult the cable manufacturer for exact data.
11. Use soft Velcro based cable ties located at random distances apart for installation of specialty cable such as HD-SDI, Category cable, fiber, etc.

F. Service and segregation of installed cables

1. Refer to the drawings for
 - a. Standard wiring termination
 - b. Labeling details
 - c. Special wiring details
2. Standard cable segregation – similar signal types or signal levels may be grouped together as approved by the University of South Carolina.
 - a. Microphone: below -30 dBu
 - b. Line: -30 dBu to +24 dBu
 - c. Loudspeaker: Greater than +24 dBu
 - d. Video: 1 volt peak-peak into 75 Ohms
 - e. Control Circuits: 0-28 Volt into <50k Ohms and Data: 2 Volt peak-peak into 100 Ohms
 - f. Fiber

G. Terminations

1. Use crimping tools recommended by the termination manufacturer. Use ratcheting crimp tools for spade lugs and Molex pins.
2. Provide insulated spade lugs for screw terminals, two lugs per terminal maximum.
3. Use properly sized spade lugs for cable gauge and screw size.
4. Conductors in phoenix type connectors shall not be tinned.
5. Ferrules in phoenix type connectors shall not be used.
6. Terminate conductors with proper mating connectors.
7. Wire Nuts are not acceptable.
8. Audio shield/drain wires shall not be connected to the connector body at any time.
9. Only one cable or set of wires shall be installed into any single connector; do not loop cable in and out of a connector. Provide a terminal block to parallel any audio signal wiring.
10. Dual channel audio circuits using 5 pin XLR type connectors shall be made using a dual twisted pair type cable (Canare Star Quad, ProCo Ameriquad, or equivalent).
11. If multiple connection types are available on a given piece of equipment, the screw terminal type (including phoenix type) shall be used as first choice, with XLR connections used as second choice, and other connectors as last choice.
12. Maintain proper polarity when wiring components and loudspeakers.
13. Provide vertically mounted 1/2 inch, painted plywood or 1/8 inch thick blank panels for mounting terminal strips. Do not mount terminal strips on the bottom of racks.
14. Use only true 75 Ohm BNC cable end connectors designed for the intended coaxial cable required. Apply connector with a crimp die certified to be used with the intended coaxial cable and BNC. Feed through must also strictly maintain 75 Ohms.
15. For HD-SDI, do not use any connectors or feed-throughs not specifically rated through 3GHz digital bit rate.
16. Bi-directional serial terminations shall always be assumed to be at minimum 5-wire in the absence of approved information which indicates otherwise.

3.3. Quality Control and Installation Verification

A. General

1. The Integrator shall plan for the following shop or site visits by the University of South Carolina:
 - a. Shop staging verification
 - b. Not used.
 - c. Full verification
 - d. Final verification and training
2. The Integrator shall setup all rooms and systems to conform to the conditions listed below for each shop or site verification and shall notify the University of South Carolina that all required rooms are ready for each verification in accordance with Paragraph 1.11.G and Appendix D.
3. At the University of South Carolina's request, the Integrator shall provide proof of conformance for any room or system that the University of South Carolina concludes to be non-conforming.
4. Proof of conformance shall be the responsibility of the Integrator.
5. Incomplete systems or failure to complete the room setup prior to the University of South Carolina arriving for the shop or site verification will result in additional trips for the University of South Carolina. The Integrator will be financially responsible for all additional fees and expenses associated with these trips.
6. The Integrator shall make adjustments to all rooms and systems as directed by the University of South Carolina during the shop or site verifications.

B. Shop staging and verification for rooms identified in Paragraph 1.11.C

1. For verification the Integrator shall demonstrate to the University of South Carolina complete functionality of each room or room type selected for shop staging.
2. The Integrator's project manager or senior field technician shall be present for all shop staging events and will be responsible for field implementation of directives and instructions from the University of South Carolina during the shop verification.
3. All systems shall be configured to the following criteria.
 - a. Audio
 - 1) *The Integrator shall adjust all AV sources to provide source to source variation of less than 3dB SPL (measured A-weighted slow).*
 - 2) *Signal to noise ratio of the any complete audio path shall be greater than 60dB.*
 - 3) *Total harmonic distortion of any complete audio path shall not exceed 0.1%*
 - b. Video
 - 1) *Set the brightness and contrast of displays using a pluge test or similar test pattern.*
 - 2) *Setup color of displays using color bar test pattern.*
 - 3) *Set displays to accommodate the resolutions shown on the drawings.*
 - 4) *4:3 and 5:4 aspect ratios presented on a 16:9, 16:10, or 15:9 display shall fill the screen height. This shall be accomplished with no external or internal scaling or stretching.*
 - 5) *A display generated test pattern shall fill the screen and be plumb, square, and true.*
 - 6) *Video signals passing through UTP transmitters and receivers, computer interfaces, and other video processing equipment shall be adjusted so*

that the signals appear identical to signals directly connected to the display.

- 7) *Set the outputs of scalers and scaling switchers to accommodate the resolutions shown on the drawings.*
- 8) *Set transition effects, switching modes, picture-in-picture (PIP), or other scaler/switcher display and codec settings as directed by University of South Carolina.*

c. Control Systems

- 1) *Control system shall be fully connected and communicating with all controllable devices.*
- 2) *Control of building or environmental systems shall be demonstrated by use of mock-ups or proxies.*
- 3) *Control system program shall be loaded and functional.*

d. RF Systems

- 1) *RF system shall be free of noise and crosstalk*
- 2) *RF level at lowest and highest rated system channel shall be between +6dBmV and +12dBmV.*

C. Not used.

D. Full Verification

1. **All Owner furnished equipment shall be installed and working properly in all rooms selected for on site staging. All software that is required for integration with AV system shall be installed by the Owner (or by the Integrator under the coordination/ supervision of the Owner), and functioning properly**
2. **All AV systems that are a part of this project shall be completely installed and functional.**
3. **All University of South Carolina's directions and all criteria listed under shop staging and on-site staging shall be applied to all audio, video, control, RF and AV wireless Ethernet systems throughout the project.**
4. **All Owner furnished equipment shall be installed and working properly in all rooms. All software that is required for integration with AV system shall be installed by the Owner (or by the Integrator under the coordination/ supervision of the Owner), and functioning properly.**
5. **Incomplete systems or failure to complete the room setup prior to the University of South Carolina arriving will result in additional trips for the University of South Carolina. The Integrator will be financially responsible for all additional fees and expenses associated with these trips.**
6. **The Integrator's project manager or a senior technician who is familiar with the system shall demonstrate the complete functionality of each AV system to the University of South Carolina.**
7. **The University of South Carolina will create a punchlist of deficiencies that must be corrected by the Integrator prior to final verification.**
8. **Items added to the punchlist during this verification will not be re-verified or removed from the punchlist during this verification.**
9. **The Integrator shall configure all systems to meet the criteria listed in Shop Staging and the following criteria.**

a. Audio

- 1) *Set the audio system to provide seat to seat variation of +/-4dB in the 2kHz octave band (measured A-weighted slow).*
- 2) *Audio path shall maintain absolute system polarity such that:*

- a) Positive acoustic pressure at the front of all microphones creates a positive voltage at the positive terminal of all line outputs and a positive acoustic pressure at all loudspeakers.
 - b) Positive voltage at the positive terminal of all line inputs creates a positive voltage at the positive terminal of all line outputs and a positive acoustic pressure at all loudspeakers.
- b. Video
- 1) *Projected images shall be in focus, free of any keystone (no digital keystone allowed), free from any obstruction.*
 - 2) *All images shall be free from ghosting or smearing.*
 - 3) *Analog RGBHV signal amplitude through any signal path shall not exceed +/-3dB across the operational bandwidth up to 450 MHz.*
 - a) Cable type shall be selected to meet this requirement
 - b) Video line drivers or peaking amplifiers shall be added only when signal loss due to cable length exceeds this requirement and cannot be corrected by selecting a lower loss cable.
 - c) Video line drivers or peaking amplifiers shall be adjusted to provide the least amount of correction to bring the signal within this requirement.
- c. Control Systems
- 1) *Control system program shall be loaded into all controllable devices including touch panels.*
 - 2) *Control of building or environmental systems shall be fully functional.*
 - 3) *All controllable devices and systems shall be controllable from the control system touch panel or button panel.*
- d. RF Systems
- 1) *RF level at lowest and highest rated system channel at all cable outlets shall be between +6dBmV and +12dBmV.*
- e. AV Wireless Ethernet
- 1) *Perform a wireless site survey to identify existing active wireless access points in the area along with channel allocations, SSID information and Security Information and determine the number and placement for additional types (802.11a, 802.11b/g, 802.11i, etc.) of access points, gateways and repeaters necessary to provide proper coverage and network performance throughout the facility for the wireless Ethernet devices listed in Appendix G.*
 - 2) *Develop and recommend a channel allocation map with non-overlapping channels for each area within the buildings to maximize wireless network performance.*
 - 3) *Procedures for the wireless site survey are referenced in Paragraphs 1.8.B and 1.8.C.*

E. Final Verification

- 1. All items listed in the punchlist created during the full verification shall be corrected.**
- 2. The Integrator's Project Manager or a senior technician who is familiar with the system shall demonstrate that all items in the punchlist have been corrected.**
- 3. Punchlist items or other installation issues not corrected and resulting in the inability to demonstrate the complete functionality of all AV systems will result in additional trips for the University of South Carolina. The Integrator will be financially responsible for all additional fees and expenses associated with these trips**

F. Training

- 1. The Integrator shall train the Using Agency in the proper operation of the system.**
- 2. The Integrator's project manager or senior technician who is familiar with the system shall lead this training.**
- 3. Manufacturer training for elements of the broadcast systems shall be provided as follows and associated costs included in the base bid response:**
 - a. Broadcast Production Switcher – basis of design manufacturer: Ross
 - 1) *One-day onsite training*
 - b. Broadcast Graphics – basis of design manufacturer: Ross
 - 1) *One-day onsite training*
 - c. Broadcast Lighting Console – basis of design manufacturer: ETC
 - 1) *One-day onsite training*

3.4. Contract Closeout

- A. Contract closeout will be based on completion of final verification, completion of punchlist items, acceptance of project record documents and completion of training.***

END OF SECTION 27 41 16

Section 27 41 16.01 - Appendices for Section 27 41 16

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APPENDIX A - Demarcation List

- A. *General: This appendix describes demarcation points in the work to determine where the Integrator's responsibilities end in the specific instances noted below.*
- B. *Electrical System Connections: The Integrator shall coordinate with the General Contractor to extend the AV AC power circuits and insulated ground wires into each equipment rack.*
- C. *Raceway (conduit and backboxes): The Integrator shall provide blank plates or panels for all AV floor, wall and ceiling boxes that are shown on the drawings, but do not have AV devices and/or connectors at this time. Colors and types shall be coordinated with the Architect. Devices and plates for other trades (HV power, voice/data, etc.) within the AV floor boxes are by others.*
- D. *Where equipment installed by the Integrator, including Owner-furnished equipment, is shown installed in furniture, millwork, or casework provided by others, the Integrator shall coordinate with the General Contractor with respect to cutting furniture/millwork/casework to accommodate flip-top devices, grommets, microphones, etc.*
- E. *Cabling: All audio, video and control cabling shall be provided, installed and terminated by the Integrator as noted on the Integrator's construction documents. Voice/data cabling, unless specifically noted otherwise, are the responsibility of others.*
- F. *Cable Termination: Where cable installation is required, this will include wall and/or floor jacks, plates and terminations at room devices, and service loops at patch bay locations.*
- G. *Projector and Monitor Mounts: The Integrator shall install all projectors and monitor mounts as indicated on the approved shop drawings. Integrator shall verify location and structural suitability before attaching projectors, monitors and mounts. Integrator shall satisfy the requirements in Paragraph 3.2.A.*
- H. *Low Voltage Connections to Base-Building Devices:*
 - 1. *Low voltage control interfaces for lighting dimmers, window treatments and electric projection screens will be installed by others as a part of the base building. Integrator shall verify proper operation of these control systems before any interconnection to the AV control system.*
 - 2. *Integrator shall investigate all hardware and software control conflicts between the base building control systems and the AV control system before interconnecting the systems. Report any conflicts, potential or existing, to the General Contractor, in writing, before interconnecting the systems. Damage caused to the base building control systems due to the improper connection of AV control systems shall be the sole responsibility of the Integrator.*
 - 3. *Where indicated, Integrator shall select and install the appropriate cable type from the AV control system to the base building control systems interface locations.*
 - 4. *Integrator shall verify proper operation of both the base building control systems and the AV control system after interconnecting the systems, and verify proper operation of both.*
- I. *AV Control System Connections and Devices: Integrator shall set up control system equipment with IP addresses and proprietary control network addresses, install all necessary hardware cards, and adjust all appropriate DIP switch*

settings, and any other equipment settings such as baud rate and protocol settings. Integrator shall include all of this information in Project Record Documents.

- J.** *DMX Lighting Control System Connections and Devices: Integrator shall set up control system equipment with IP and proprietary control network addresses, install all necessary hardware, and adjust all appropriate hardware and software settings, and any other equipment settings. Integrator shall include all of this information in Project Record Documents.*

APPENDIX B - AV Weekly Status Report

- A. The form on the following page is the Consultant's "AV Weekly Status Report". The Integrator shall provide weekly status reports in this format or an equivalent format approved by the General Contractor and Consultant in advance.*

AV WEEKLY STATUS REPORT

WEEK OF: _____

INTEGRATOR: _____ BY: _____

CLIENT / PROJECT NAME: _____

ROOM NAMES / NUMBERS: _____

Provide a summary for each of the following areas. Use additional sheets as needed.

General:

Purchases:

Assembly:

Field Conditions:

Issues of Concern:

APPENDIX C - AV Room Ready conditions

- A. *Before installing AV equipment on site, the following conditions must be met for each space where AV equipment is to be installed.***
- 1. All water piping completely installed and tested**
 - 2. Dirt and dust sources removed. HVAC running with filters in place and AV-rooms "broom-clean"**
 - 3. Major construction activities completed, especially activities that may create physical damage to equipment or racks such as:**
 - a. Overhead work that may cause debris or dust
 - b. Chemical work such as concrete cleaning and finishing
 - c. Welding or grinding
 - d. Activities that may cause excessive vibration
 - 4. Building systems and finishes**
 - a. Ceiling work completed (ceiling tiles installed, lighting installed and operational)
 - b. Shades and screens installed and operational
 - c. Floor finish installation complete
 - d. Wall treatments complete
 - 5. Security**
 - a. AV areas secure
 - 1) *For equipment, rack and tool storage*
 - 2) *Staging and work area for final assembly work on racks or in furniture and millwork*
 - 3) *Equipment installation areas that are not yet turned over to the owner*
 - b. Keys provided to integrator with limited distribution
 - c. Security badges and clearances obtained for all on-site personnel
 - 6. AV system infrastructure**
 - a. AV field cabling pulls complete
 - b. All AV construction related items completed
 - c. All AV power wiring in place, tested and on
 - d. All millwork and furniture containing AV equipment in place
 - e. System interfaces installed (lighting, screens, motorized drapes, etc.)
 - f. Cabling by others in place (data/telecom, cable TV, fiber)
 - g. Lighting installed and available for use in AV spaces
- B. *Before adjusting AV equipment to meet the conditions in Paragraph 3.3, C, the following conditions must be met, in addition to the items listed above, for each space where AV equipment is to be installed.***
- 1. HVAC balanced**
 - 2. Lighting system configured (lighting presets programmed)**
 - 3. Shade system configured**
 - 4. IT services activated**

APPENDIX D - STAGING AND VERIFICATION NOTIFICATION

- A. The following text shall be used to notify the University of South Carolina that the specified rooms or entire project is ready for checkout.*
- B. One letter of notification is required for each of the following:*
 - 1. Shop Staging, Paragraphs 1.11.G and 3.3.B**
 - 2. Not used.**
 - 3. Full Verification, Paragraphs 1.11.I and 3.3.D**
 - 4. Final Verification, Paragraphs 1.11.J and 3.3.E**
- C. The Integrator shall copy or retype the text of the following letter onto the Integrator's letterhead and fill in or select the appropriate text.*
- D. See sample letter at the end of Appendix D.*

This letter serves as notification to Waveguide Consulting that (insert Integrator's name) has completed the required setup and is ready for (select one of the following: Shop Staging, On-site Staging, Full Verification or Final Verification).

(Insert Integrator's name) acknowledges that all rooms and systems specified for this staging or verification meet all specified installation and setup requirements.

Printed name of Project Manager

Signature of Project Manager Date

(Insert Integrator's name) acknowledges that incomplete systems or failure to complete the room setup as specified prior to the University of South Carolina arriving for staging or verification will result in additional trips for the University of South Carolina.

(Insert Integrator's name) acknowledges that (Insert Integrator's name) will be financially responsible for all additional fees and expenses associated with these trips.

As (Insert Integrator's name) duly authorized representative, I have read and agree to this agreement.

Printed name of signatory

Signature

Date

APPENDIX E - Control System

A. *Scope:*

1. AV Integrator shall provide all custom software and graphical user interface (GUI) design for all integrated control systems, as described herein.
2. The description of control system functionality described in this appendix in no way limits the AV Integrator's scope to provide complete and functional custom control systems (hardware and software) for all AV systems described in the bid documents. The requirements described herein are intended to provide the AV Integrator with a starting point for meeting the submittal requirements and Owner coordination requirements specified herein.

B. *Conformation to Standards:*

1. Verify and follow campus or building standards per Owner.
2. AV Integrator shall provide custom software and will coordinate with the Owner to establish standards graphically, logically, and logistically.
3. AV Integrator shall strive to maintain interfaces that conform to the recommendations made by the ICIA working committee "Dashboard for Controls."

C. *General Requirements:*

1. All requirements herein shall be verified and approved by the Owner prior to commencement of programming.
2. User interfaces should be task driven, and should use graphics that rely on shape and text changes in addition to color changes to be usable for the widest audience.
3. Each room or system with a control processor shall have signals and attributes for communication with Fusion RV® Server software as coordinated with and directed by the Owner.

D. *Submittals:*

1. The Integrator shall include a schedule of milestones for software programming in the Project Plan submittal.
2. A document describing proposed user interfaces for each system shall be submitted per the approved Project Plan.
3. Coordination of addressing schemes for interconnection with the Owner's network infrastructure shall be submitted per the approved Project Plan.

E. *User Interfaces:*

1. **Graphical User Interfaces General:**
 - a. System power control
 - b. Display controls including power status, lamp life for projectors, etc.
 - c. Basic source selection of system sources with associated device controls
 - d. Basic audio level controls
2. **E-Control XPanels:**
 - a. An Adobe Air XPanel 2.0 interface.
3. **E-Control Apps:**
 - a. A Control App for Apple® iOS® compatible project and load on the processor for the system to be controlled.
 - b. Control App shall support Crestron Smart Graphics.
 - c. Provide additional memory in processors as required.

F. *Functional Requirements*

1. **Power States**

- a. All systems shall have the following power states:
 - 1) *On – This is the normal operating condition with all AV systems equipment powered on and functioning in support of user sessions.*
 - 2) *Off - Off shall mean the AV systems are in the minimal energy state with all unnecessary equipment powered off through either direct control or power relay control.*
 - b. Coordinate with Owner for initial room configuration settings such as preferred lighting preset, audio only or displays on, default source(s), etc.
2. **Power control of a system is device and system dependent. As a standard when the system is turned on, the command to turn on all system devices shall be given. All devices should be ready for the user once the system is started. Some devices have dedicated “On” and “Off” commands while some devices toggle On/Off using the same command. Minimize the possibility of system start error—due to premature user button presses—by initiating a lockout—wherever possible—until the system is fully started. On system shutdown, all controlled devices, with the exception of the control system processor, shall be powered off or put in a standby state. Power sequencing shall be as per approved shop drawings.**
 3. **System shut down - when a graphical user interface is provided, a single button press shall present the user with a shutdown dialog. The shutdown dialog shall have a Shut System Down Now button and a Return to System button as well as a countdown timer, which shall start counting down from an Owner approved starting time when the shutdown sequence is initiated by a user. If the user starts the shutdown of the system and does provides no further interaction, the system will shut down when the countdown timer reaches zero. If the user selects Shut System Down Now, the system will immediately transition to the Standby power state. If the user selects the Return to System button, the countdown timer will be canceled, the shutdown dialog closed, and the user shall be returned to the previous page on the user interface.**
 4. **TV Tuners**
 - a. Direct channel selection via ten key input plus enter key
 - b. Preset channel selection for 16 channels as determined by the Owner with station logos for button graphics
 - c. Channel Up and Channel Down
 - d. Current Channel indication
 5. **Help - when a graphical user interface is provided, a Help button shall be provided to recall a subpage with information about the room and system that may be helpful during troubleshooting the room as well as contact information for local technical support. The information provided should be dynamically derived on demand from the equipment connected to the system and/or read from a database or configuration file that may be user configurable outside of compiled code.**
 6. **Technician Pages - when a graphical user interface is provided, password protected technician pages should also be provided to allow technician access to system configuration settings as required.**

G. Process:

1. **Prior to creating any custom code, the Integrator shall meet with the Owner and University of South Carolina to review graphic user interface (GUI) requirements. Best practices as defined by the InfoComm “Dashboard for AV Controls” shall be adhered to.**
2. **The Integrator shall demonstrate systems programming for the end user touch panel to the University of South Carolina during Shop Staging. The Integrator shall provide changes to the user interface and/or control programming beyond that described by the approved GUI, based on direction provided during staging.**

3. **The Integrator shall demonstrate full systems programming to the University of South Carolina during Full Project Verification. This code shall incorporate any changes directed by the University of South Carolina during staging. The Integrator shall provide changes to the user interface and/or control programming beyond that described by the approved GUI, based on direction provided during verification.**
4. **Within 30 days after final acceptance of programming the Owner shall provide to the AV Integrator in writing any requested software changes. Within 30 days of receipt of the request, the AV Integrator shall provide one additional site visit to implement changes to the user interface and/or control programming.**

H. General System Requirements:

1. **These requirements are in addition to the requirements above and provide a minimum level of functionality. Final requirements will be determined through the submittal process, shall be determined by the Owner and may add or remove functionality described herein.**

I. Digital Signage System Specific Requirements:

1. **Provide an E-Control XPanel and an E-Control App for iPad devices. Both interfaces may match and track.**
2. **Provide display power control and feedback for all provided signage displays as a group, individual groups of displays (upper media tower, lower media tower and donor wall) and individual flat panel displays.**
3. **Provide a button for default source selection for all provided signage displays as a group, individual groups of displays (upper media tower, lower media tower and donor wall) and individual flat panel displays.**
4. **Provide video source routing capabilities for all provided signage displays as a group, individual groups of displays (upper media tower, lower media tower and donor wall) and individual flat panel displays.**
5. **Provide three presets for video source routing that act as system-wide snapshots to save and recall the routes made to all provided signage displays.**
6. **Provide audio source routing capabilities for lobby loudspeakers (one source total). Available sources shall include “NONE” to break the audio route. Provide level control (volume up, volume down and mute) for lobby loudspeakers; provide independent controls for first floor and second floor loudspeaker zones.**
7. **Provide source transport controls for each cable TV tuner. It is recommended a list of tuners be provided for selection and then common transport controls be provided to control the selected tuner.**
8. **Provide controls to allow groups of displays to be configured as one large logical display. Groups include the three donor wall displays, the three displays on one side of the media tower lower element and the three displays on the second side of the media tower element.**
 - a. **Each group of displays shall be independently controllable as three individual displays and three routing destinations or one logical display and one routing destination.**
 - b. **Provide feedback indicating when displays are independent or grouped together.**
 - c. **Show displays as three independent destinations for routing when separated and as one destination when grouped together.**
 - d. **When displays are grouped, whatever was routed to the first display will be stretched across the logical display formed by the displays when grouped.**
 - e. **When displays are separated, whatever was routed to the logical display formed by the displays when grouped will be routed to all three individual displays.**

- 9. Provide the ability to schedule displays to turn on and off each day of the week. Also provide the ability to conditionally recall a snapshot of routing assignments and to conditionally mute loudspeaker zones when displays are turned on from schedule.**
- a. A dedicated snapshot for scheduled turn on shall be user configurable/save-able.
 - b. Provide a setting to allow recall this preset or not when displays are turned on by schedule. If enabled, the user configured snapshot will be recalled restoring all routes in the digital signage router. If disabled, the routes will remain unchanged when the displays are turned on.
 - c. Provide a setting to allow mute the two loudspeaker zones when displays are turned on by schedule. If enabled, the two loudspeaker zones will be muted. If disabled, the two loudspeaker zone audio levels will remain unchanged when the displays are turned on.

APPENDIX F - Submittal Drawing Checklist

A. *FORM (ALL SHEETS)*

- 1. Submittal copy quantity requirements satisfied**
- 2. Submittal content satisfied**
- 3. Adequate sheet size for drawing**
- 4. All notes and other text legible throughout the drawing set**
- 5. Contact info for each responsible party (architect, owner, Integrator, etc...) clearly printed on the drawings**
- 6. Table of contents with necessary fields present (Sheet Title, Sheet Number, Description, etc...)**
- 7. Drawing titles and sheet names match the Table of Contents**
- 8. Sheet titles make sense**
- 9. Drawing order makes sense**
- 10. Spelling checked and corrected**

B. *FIT (EQUIPMENT LAYOUT PLAN, RCP, ELEVATION, DETAILS)*

- 1. All of the equipment shown on plan view in the correct position**
- 2. All equipment uniquely identified**
- 3. Equipment clearances throw distances, and elevations clearly marked, dimensioned and noted**
- 4. If in scope, detail drawings for the hanging/installation/mounting of projectors, screens, cameras, surface mounted loudspeakers, ceiling suspended loud speakers, wall or floor mounted racks, displays, microphones, antennas and sensors, and camera/speaker housings**
- 5. Equipment mounting details for equipment (composite weight including hardware) over 40 lbs. include the stamp of the Approved Licensed Structural Engineer.**
- 6. Details contain manufacturer and model numbers for each part, detail key referenced back to Equipment layout, weight, and clearance requirements**
- 7. Detail reference keys for every piece of equipment permanently installed overhead**

C. *FIT (CABLE FILL FORM, OR PLAN AND RCP)*

- 1. Conduits uniquely identified**
- 2. Cable types identified by make and model number**
- 3. Cables leaving rooms uniquely identified**
- 4. Cable quantities/types correct**
- 5. Cables segregated by type/signal level when possible**

D. *FIT (RACK, FURNITURE RACK LAYOUTS AND ELEVATIONS)*

- 1. Racks have a unique ID**
- 2. All equipment uniquely identified within each rack layout**
- 3. Blanks, vents, and fans positioned properly with respect to the actual heat generating equipment**
- 4. Layout functional for daily use**
- 5. Mounting of any external equipment such as monitors, speakers, and desk shelves detailed**
- 6. Detail covering grounding, bonding, and the pass through of conduits to and from the racks**

E. *FIT (CUSTOM FURNITURE DRAWINGS)*

- 1. Furniture drawings accurately show the form fit and function of the original design intent**
- 2. Cable pass-troughs and equipment access panels appropriate for daily use**
- 3. Finish samples provided unless finishes are pre-approved by owner/architect**
- 4. Furniture uniquely identified and keyed to Equipment Layout Plans, Rack elevations, and System Line Diagrams**

5. Furniture drawings contain enough detail for custom fabrication by furniture vendor

F. FIT (CUSTOM PANELS AND PLATES)

1. Plate drawings include the following manufacturing details: material type and thickness; plate finish; engraving/screening size, color, and font style; bevel and mounting hole details; connectors and switches identified by make and model number; and connector mounting method (pressure fitting, nuts and bolts, etc...)
2. All plates uniquely identified and keyed to match line diagrams and equipment layouts

G. FUNCTION (SYSTEM LINE DIAGRAMS)

1. Signal flow from input to output, left to right
2. Wiring notes make sense
3. System line diagrams accurately reflect the original system design intent
4. Equipment shown identified by manufacturer, model number, and a product description
5. All of the equipment shown has a unique ID matching the plate drawings, rack elevations, and equipment layout plans and RCP's
6. All field and rack wires uniquely identified by number
7. All terminal strips identified by locations and numbered
8. All rack power circuits and power control sequencing circuits identified, and all sequenced and controlled power devices identified in a table with means of controlling power state identified
9. All pre-made cables indicated by manufacturer, make, and model number
10. Calculated measurements for RF level for taps, drops, splitters, and amps
11. All wires identified by signal type (MIC, Line, RGB, Serial, Etc...)
12. Details for DIP switch settings, IP Addresses, Baud Rates or equipment modifications
13. Detailed pin outs for all Integrator manufactured cables
14. System line diagrams contain detail markers of where to find pin out details
15. System line diagrams indicate the impedance at amplifier outputs for all speaker lines

H. MISC (MISC CONSTRUCTION DETAILS)

1. Details and elevations for any custom built equipment, architectural oddities, or any other Integrator work not covered elsewhere

I. EQUIPMENT LIST

1. Variances from the original basis of design clearly marked
2. All of the necessary equipment accessories included
3. Equipment identifiers match those on the drawings
4. Equipment quantities match those of the drawings

APPENDIX G - Equipment List Spreadsheet

- A. *Attached to this section is the Consultant's suggested AV equipment list based on the AV System drawings and Specifications. This information may be used by the potential bidders as a starting point in determining overall quantities of items and to indicate the allocation of devices budgeted in individual areas.*
- B. *Integrators are cautioned that while the Consultant has made a good faith effort in preparing this list to be as coordinated and complete as possible, this list may not be complete, may have discrepancies against the drawings, and may not indicate all pertinent information required to prepare an accurate bid.*
- C. *Several quotes have been created to assist the potential bidders in preparing a proposed equipment list for the project. This information may be used by the potential bidders as a starting point in determining overall quantities of items. These include:*
1. **Brightline**
 - a. Address: 580 Mayer Street, Building #7, Bridgeville, PA 15017
 - b. Telephone: (412) 206-0106
 - c. Quote Numbers: 10247 and 10248
 2. **Evertz**
 - a. Address: 5292 John Lucas Dr., Burlington, Ontario, Canada
 - b. Telephone: (905) 335-3700
 - c. Quote Number: DVEHQ7897
 3. **Ross**
 - a. Address: 9121 Meadowood Street, Baton Rouge, LA 70815
 - b. Telephone: (613) 652-4886
 - c. Quote Number: Q-25068-1
 4. **Sony**
 - a. Address: One Sony Drive, Park Ridge, NJ 07656- ('Sony')
 - b. Telephone: 201-930-1000
 - c. Proposal Number: 00062902
 5. **Winsted**
 - a. Address: 10901 Hampshire Avenue South, Minneapolis, MN 55438
 - b. Telephone: 952-944-9050
 - c. Quotation: 23429414
- D. *The Integrator is solely responsible for the completeness and accuracy of take-offs and bids.*
- E. *All information indicated on this equipment list, including but not limited to quantities, manufacturers, model numbers and room allocations are non-binding, and neither the Owner nor the Consultant is obligated to accept the information, in original or altered form, from the Integrator as the final Bill of Quantities.*
- F. *The Integrator shall supply a complete and operable system meeting the requirements of the construction documents (drawings and specifications) regardless of information indicated on the AV Systems Equipment List.*

G. *This spreadsheet may be obtained from the Consultant in Microsoft Excel (.xls) format for use in the preparation of the Bids.*

IV. Information For Offerors To Submit

INFORMATION FOR OFFERORS TO SUBMIT – GENERAL (JAN 2006): Offeror shall submit a signed Cover Page and Page Two. Offeror should submit all other information and documents requested in this part and in parts II.B. Special Instructions; III. Scope of Work; V. Qualifications; VIII. Bidding Schedule/Price Proposal; and any appropriate attachments addressed in section IX. Attachments to Solicitations.

MINORITY PARTICIPATION (JAN 2006)

Is the bidder a South Carolina Certified Minority Business? Yes NO

Is the bidder a Minority Business certified by another governmental entity? Yes NO

If so, please list the certifying governmental entity: _____

Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor? Yes NO

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? Yes NO

Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor? Yes NO

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? Yes NO

If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

- Traditional minority
- Traditional minority, but female
- Women (Caucasian females)
- Hispanic minorities
- DOT referral (Traditional minority)
- DOT referral (Caucasian female)
- Temporary certification
- SBA 8 (a) certification referral
- Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

V. Qualifications

QUALIFICATION OF OFFEROR (JANUARY 2006): To be eligible for award of a contract, a prospective contractor must be responsible. In evaluating an Offeror's responsibility, the State Standards of Responsibility [R.19-445.2125] and information from any other source may be considered. An Offeror must, upon request of the State, furnish satisfactory evidence of its ability to meet all contractual requirements. Unreasonable failure to supply information promptly in connection with a responsibility inquiry may be grounds for determining that you are ineligible to receive an award. S.C. Code Section 11-35-1810.

SUBCONTRACTOR – IDENTIFICATION (JAN 2006): If you intend to subcontract with another business for any portion of the work and that portion exceeds 10% of your price, your offer must identify that business and the portion of work which they are to perform. Identify potential subcontractors by providing the business' name, address, phone, taxpayer

identification number, and point of contact. In determining your responsibility, the state may evaluate your proposed subcontractors.

VI. Award Criteria

AWARD CRITERIA – BIDS (JANUARY 2006): Award will be made to the lowest responsible and responsive bidder(s).

UNIT PRICE GOVERNS (JANUARY 2006): In determining award, unit prices will govern over extended prices unless otherwise stated.

AWARD TO ONE OFFEROR (JAN 2006): Award will be made to one Offeror.

VII. Terms and Conditions - A. General

ASSIGNMENT (JANUARY 2006): No contract or its provisions may be assigned, sublet, or transferred without the written consent of the Procurement Officer.

BANKRUPTCY (JANUARY 2006): (a) Notice. In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Using Governmental Unit. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to the bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of all State contracts against which final payment has not been made. This obligation remains in effect until final payment under this Contract. (b) Termination. This contract is voidable and subject to immediate termination by the State upon the contractor's insolvency, including the filing of proceedings in bankruptcy.

CHOICE-OF-LAW (JANUARY 2006): The Agreement, any dispute, claim, or controversy relating to the Agreement, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation.

CONTRACT DOCUMENTS & ORDER OF PRECEDENCE (JANUARY 2006): (a) Any contract resulting from this solicitation shall consist of the following documents: (1) a Record of Negotiations, if any, executed by you and the Procurement Officer, (2) documentation regarding the clarification of an offer [e.g., 11-35-1520(8) or 11-35-1530(6)], if applicable, (3) the solicitation, as amended, (4) modifications, if any, to your offer, if accepted by the Procurement Officer, (5) your offer, (6) any statement reflecting the state's final acceptance (a/k/a "award"), and (7) purchase orders. These documents shall be read to be consistent and complimentary. Any conflict among these documents shall be resolved by giving priority to these documents in the order listed above. (b) The terms and conditions of documents (1) through (6) above shall apply notwithstanding any additional or different terms and conditions in either (i) a purchase order or other instrument submitted by the State or (ii) any invoice or other document submitted by Contractor. Except as otherwise allowed herein, the terms and conditions of all such documents shall be void and of no effect. (c) No contract, license, or other agreement containing contractual terms and conditions will be signed by any Using Governmental Unit. Any document signed or otherwise agreed to by persons other than the Procurement Officer shall be void and of no effect.

DISCOUNT FOR PROMPT PAYMENT (JANUARY 2006)

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a discount for prompt payment in conjunction with the offer, offerors awarded contracts may include discounts for prompt payment on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the state annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the

payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day.

DISPUTES (JANUARY 2006): (1) Choice-of-Forum. All disputes, claims, or controversies relating to the Agreement shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the Government regarding the Agreement is not a waiver of either the Government's sovereign immunity or the Government's immunity under the Eleventh Amendment of the United State's Constitution. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation. (2) Service of Process. Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any disputes, claims, or controversies relating to the Agreement; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided as the Notice Address on Page Two or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail.

EQUAL OPPORTUNITY (JANUARY 2006). Contractor is referred to and shall comply with all applicable provisions, if any, of Title 41, Part 60 of the Code of Federal Regulations, including but not limited to Sections 60-1.4, 60-4.2, 60-4.3, 60-250.5(a), and 60-741.5(a), which are hereby incorporated by reference.

FALSE CLAIMS (JANUARY 2006): According to the S.C. Code of Laws § 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime.

FIXED PRICING REQUIRED (JANUARY 2006): Any pricing provided by contractor shall include all costs for performing the work associated with that price. Except as otherwise provided in this solicitation, contractor's price shall be fixed for the duration of this contract, including option terms. This clause does not prohibit contractor from offering lower pricing after award.

NON-INDEMNIFICATION (JANUARY 2006): Any term or condition is void to the extent it requires the State to indemnify anyone.

NOTICE (JANUARY 2006): (A) After award, any notices shall be in writing and shall be deemed duly given (1) upon actual delivery, if delivery is by hand, (2) upon receipt by the transmitting party of automated confirmation or answer back from the recipient's device if delivery is by telex, telegram, facsimile, or electronic mail, or (3) upon deposit into the United States mail, if postage is prepaid, a return receipt is requested, and either registered or certified mail is used. (B) Notice to contractor shall be to the address identified as the Notice Address on Page Two. Notice to the state shall be to the Procurement Officer's address on the Cover Page. Either party may designate a different address for notice by giving notice in accordance with this paragraph.

PAYMENT & INTEREST (MAY 2011): (a) Unless otherwise provided in this Solicitation, the State shall pay the Contractor, after the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified herein, including the purchase order, payment shall not be made on partial deliveries accepted by the Government. (b) Unless otherwise provided herein, including the purchase order, payment will be made by check. (c) Notwithstanding any other provision, payment shall be made in accordance with S.C. Code Section 11-35-45, which provides the Contractor's exclusive means of recovering any type of interest from the Owner. Contractor waives imposition of an interest penalty unless the invoice submitted specifies that the late penalty is applicable. Except as set forth in this paragraph, the State shall not be liable for the payment of interest on any debt or claim arising out of or related to this contract for any reason. (d) Amounts due to the State shall bear interest at the rate of interest established by the South Carolina Comptroller General pursuant to Section 11-35-45 ("an amount not to exceed fifteen percent each year"), as amended. (e) Any other basis for interest, including but not limited to general (pre- and post-judgment) or specific interest statutes, including S.C. Code Ann. § 34-31-20, are expressly waived by both parties. If a court, despite this agreement and waiver, requires that interest be paid on any debt by either party other than as provided by items (c) and (d) above, the parties further agree that the applicable interest rate for any given calendar year shall be the lowest prime rate as listed in the first edition of the Wall Street Journal published for each year, applied as simple interest without compounding.

PUBLICITY (JANUARY 2006): Contractor shall not publish any comments or quotes by State employees, or include the State in either news releases or a published list of customers, without the prior written approval of the Procurement Officer.

PURCHASE ORDERS (JANUARY 2006): Contractor shall not perform any work prior to the receipt of a purchase order from the using governmental unit. The using governmental unit shall order any supplies or services to be furnished under this contract by issuing a purchase order. Purchase orders may be used to elect any options available under this contract, e.g., quantity, item, delivery date, payment method, but are subject to all terms and conditions of this contract. Purchase orders may be electronic. No particular form is required. An order placed pursuant to the purchasing card provision qualifies as a purchase order.

SETOFF (JANUARY 2006) The state shall have all of its common law, equitable, and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the state with regard to this contract, any other contract with any state department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the state for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

SURVIVAL OF OBLIGATIONS (JANUARY 2006): The Parties' rights and obligations which, by their nature, would continue beyond the termination, cancellation, rejection, or expiration of this contract shall survive such termination, cancellation, rejection, or expiration, including, but not limited to, the rights and obligations created by the following clauses: Indemnification - Third Party Claims, Intellectual Property Indemnification, and any provisions regarding warranty or audit.

TAXES (JANUARY 2006): Any tax the contractor may be required to collect or pay upon the sale, use or delivery of the products shall be paid by the State, and such sums shall be due and payable to the contractor upon acceptance. Any personal property taxes levied after delivery shall be paid by the State. It shall be solely the State's obligation, after payment to contractor, to challenge the applicability of any tax by negotiation with, or action against, the taxing authority. Contractor agrees to refund any tax collected, which is subsequently determined not to be proper and for which a refund has been paid to contractor by the taxing authority. In the event that the contractor fails to pay, or delays in paying, to any taxing authorities, sums paid by the State to contractor, contractor shall be liable to the State for any loss (such as the assessment of additional interest) caused by virtue of this failure or delay. Taxes based on Contractor's net income or assets shall be the sole responsibility of the contractor.

TERMINATION DUE TO UNAVAILABILITY OF FUNDS (JANUARY 2006) Payment and performance obligations for succeeding fiscal periods shall be subject to the availability and appropriation of funds therefore. When funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period, the contract shall be canceled. In the event of a cancellation pursuant to this paragraph, contractor will be reimbursed the resulting unamortized, reasonably incurred, nonrecurring costs. Contractor will not be reimbursed any costs amortized beyond the initial contract term.

THIRD PARTY BENEFICIARY (JANUARY 2006) This Contract is made solely and specifically among and for the benefit of the parties hereto, and their respective successors and assigns, and no other person will have any rights, interest, or claims hereunder or be entitled to any benefits under or on account of this Contract as a third party beneficiary or otherwise.

WAIVER (JANUARY 2006) The State does not waive any prior or subsequent breach of the terms of the Contract by making payments on the Contract, by failing to terminate the Contract for lack of performance, or by failing to strictly or promptly insist upon any term of the Contract. Only the Procurement Officer has actual authority to waive any of the State's rights under this Contract. Any waiver must be in writing.

VII. Terms and Conditions - B. Special

HIPAA LAW: The Contractor agrees that to the extent that some or all of the activities within the scope of this Contract are subject to the Health Insurance Portability Accountability Act of 1996, P.L. 104-91, as amended ("HIPAA"), or its implementing regulations, it will comply with the HIPAA requirements and will execute such agreements and practices as the University of South Carolina may require to ensure compliance. Additional information may be viewed at: <http://www.sc.edu/hipaa/>

PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT - The University of South Carolina requires that all contractual activities to be in compliance with local, state and federal mandates concerning "protection of human health and the environment". In addition, the University of South Carolina is a "Drug Free Work Place" and requires all contractors to comply with South Carolina Code of Laws Section 41-15-10 ET sequence (1976 w/amendments). Any contractor doing business with the University will be required to document compliance with these mandates and to furnish specific

information requested by the University's Department of Environmental Health and Safety when notified to do so. The Contractor understands and agrees that jobsites are open at all times work is being performed by the Contractor to authorized University employees who have been trained to identify unsafe work conditions. The Contractor will immediately correct any deficiencies noted by these inspections when requested by the University's Department of Environmental Health and Safety to do so. In work areas where a specific hazard is posed which includes but is not limited to lead paint and asbestos abatement projects, Contractors will be required to produce Lead Compliance Plans and Asbestos Project Designs which outline their method of work prior to the start of work. Each contractor shall designate a responsible member of the Contractor's organization to be at the site whose duty shall be the prevention of accidents. By submission of this bid, the vendor agrees to take all necessary steps to insure compliance with the requirements outlined above.

SUBCONTRACTOR SUBSTITUTION PROHIBITED - RESIDENT SUBCONTRACTOR PREFERENCE (SEP 2009): If you receive an award as a result of the subcontractor preference, you may not substitute any business for the subcontractor upon which you relied to qualify for the preference, unless first approved in writing by the procurement officer. If you violate this provision, the State may terminate your contract for cause and you may be debarred. In addition, the procurement officer may require you to pay the State an amount equal to twice the difference between the price paid by the State and the price offered by the next lowest bidder, unless the substituted subcontractor qualifies for the preference. [11-35-1524(D)(5)(c)]

CONTRACTOR'S OBLIGATION – GENERAL (JAN 2006): The contractor shall provide and pay for all materials, tools, equipment, labor and professional and non-professional services, and shall perform all other acts and supply all other things necessary, to fully and properly perform and complete the work. The contractor must act as the prime contractor and assume full responsibility for any subcontractor's performance. The contractor will be considered the sole point of contact with regard to all situations, including payment of all charges and the meeting of all other requirements.

DEFAULT (JAN 2006):

(a)(1) The State may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to-

(i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;

(ii) Make progress, so as to endanger performance of this contract (but see paragraph (a)(2) of this clause); or

(iii) Perform any of the other material provisions of this contract (but see paragraph (a)(2) of this clause).

(2) The State's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Procurement Officer) after receipt of the notice from the Procurement Officer specifying the failure.

(b) If the State terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Procurement Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the State for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the State in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.

(d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.

(e) If this contract is terminated for default, the State may require the Contractor to transfer title and deliver to the State, as directed by the Procurement Officer, any (1) completed supplies, and (2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to as "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Procurement Officer, the Contractor shall also protect and preserve property in its possession in which the State has an interest.

(f) The State shall pay contract price for completed supplies delivered and accepted. The Contractor and Procurement Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property; if the parties fail to agree, the Procurement Officer shall set an amount subject to the Contractor's rights under the Disputes clause. Failure to agree will be a dispute under the Disputes clause. The State may withhold from these amounts any sum the Procurement Officer determines to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders.

(g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the State, be the same as if the termination had been issued for the convenience of the State. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the State, the contract shall be adjusted to compensate for such termination and the contract modified accordingly subject to the contractor's rights under the Disputes clause.

(h) The rights and remedies of the State in this clause are in addition to any other rights and remedies provided by law or under this contract.

INDEMNIFICATION - THIRD PARTY CLAIMS (JAN 2006): Notwithstanding any limitation in this agreement, Contractor shall defend and indemnify the State of South Carolina, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees against all suits or claims of any nature (and all damages, settlement payments, attorneys' fees, costs, expenses, losses or liabilities attributable thereto) by any third party which arise out of, or result in any way from, any defect in the goods or services acquired hereunder or from any act or omission of Contractor, its subcontractors, their employees, workmen, servants or agents. Contractor shall be given written notice of any suit or claim. State shall allow Contractor to defend such claim so long as such defense is diligently and capably prosecuted through legal counsel. State shall allow Contractor to settle such suit or claim so long as (i) all settlement payments are made by (and any deferred settlement payments are the sole liability of) Contractor, and (ii) the settlement imposes no non-monetary obligation upon State. State shall not admit liability or agree to a settlement or other disposition of the suit or claim, in whole or in part, without the prior written consent of Contractor. State shall reasonably cooperate with Contractor's defense of such suit or claim. The obligations of this paragraph shall survive termination of the parties' agreement.

LICENSES AND PERMITS (JAN 2006): During the term of the contract, the Contractor shall be responsible for obtaining, and maintaining in good standing, all licenses (including professional licenses, if any), permits, inspections and related fees for each or any such licenses, permits and /or inspections required by the State, county, city or other government entity or unit to accomplish the work specified in this solicitation and the contract.

RELATIONSHIP OF THE PARTIES (JAN 2006): Neither party is an employee, agent, partner, or joint venturer of the other. Neither party has the right or ability to bind the other to any agreement with a third party or to incur any obligation or liability on behalf of the other party.

TERMINATION FOR CONVENIENCE (JAN 2006): (1) Termination. The Procurement Officer may terminate this contract in whole or in part, for the convenience of the State. The Procurement Officer shall give written notice of the termination to the contractor specifying the part of the contract terminated and when termination becomes effective. (2) Contractor's Obligations. The contractor shall incur no further obligations in connection with the terminated work and on the date set in the notice of termination the contractor will stop work to the extent specified. The contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. The Procurement Officer may direct the contractor to assign the contractor's right, title, and interest under terminated orders or subcontracts to the State. The contractor must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so. (3) Right to Supplies. The Procurement Officer may require the contractor to transfer title and deliver to the State in the manner and to the extent directed by the Procurement Officer: (a) any completed supplies; and (b) such partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the contractor has specifically produced or specially acquired for the performance of the terminated part of this contract. The contractor shall, upon direction of the Procurement Officer, protect and preserve property in the possession of the contractor in which the State has an interest. If the Procurement Officer does not exercise this right, the contractor shall use best efforts to sell such supplies and manufacturing materials in accordance with the standards of Uniform Commercial Code Section 2-706. Utilization of this Section in no way implies that the State has breached the contract by exercise of the Termination for Convenience Clause. (4) Compensation. (a) The contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data required by Section 11-35-1830 bearing on such claim. If the

contractor fails to file a termination claim within one year from the effective date of termination, the Procurement Officer may pay the contractor, if at all, an amount set in accordance with Subparagraph (c) of this Paragraph.

(b) The Procurement Officer and the contractor may agree to a settlement and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the State, the proceeds of any sales of supplies and manufacturing materials under Paragraph (3) of this clause, and the contract price of the work not terminated;

(c) Absent complete agreement under Subparagraph (b) of this Paragraph, the Procurement Officer shall pay the contractor the following amounts, provided payments agreed to under Subparagraph (b) shall not duplicate payments under this Subparagraph:

(i) contract prices for supplies or services accepted under the contract;

(ii) costs reasonably incurred in performing the terminated portion of the work less amounts paid or to be paid for accepted supplies or services;

(iii) reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Paragraph (2) of this clause. These costs must not include costs paid in accordance with Subparagraph (c)(ii) of this paragraph;

(iv) any other reasonable costs that have resulted from the termination. The total sum to be paid the contractor under this Subparagraph shall not exceed the total contract price plus the reasonable settlement costs of the contractor reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under Subparagraph (b) of this Paragraph, and the contract price of work not terminated.

(d) Contractor must demonstrate any costs claimed, agreed to, or established under Subparagraphs (b) and (c) of this Paragraph using its standard record keeping system, provided such system is consistent with any applicable Generally Accepted Accounting Principles.

(5) Contractor's failure to include an appropriate termination for convenience clause in any subcontract shall not (i) affect the state's right to require the termination of a subcontract, or (ii) increase the obligation of the state beyond what it would have been if the subcontract had contained an appropriate clause.

VIII. BIDDING SCHEDULE / PRICE-BUSINESS PROPOSAL

Item	Qty	Unit of Measure	Description	Extended Price
1		Each	Furnish all materials, supplies and labor _to provide A/V systems as per specifications in Section III Scope of Work / Specifications of the solicitation	\$

Resident Contractor Preference _____
 Resident Sub-Contractor Preference (2%) _____ Number of Sub-Contractors _____
 Resident Sub-Contractor Preference (4%) _____ Number of Sub-Contractors _____

Note: The service preferences do not apply to a bid for an item of work by the bidder if the annual price of the bidder's work exceeds \$50,000 or the total potential price of the bidder's work exceeds \$500,000. [11-35-1524(E)(3)]

Please refer to the preference clauses listed in the additional conditions of this solicitation to ensure that you qualify to select the above preferences.

Bidder is to submit the following for preferences requested above:

- 1) Identify the subcontractor to perform the work:
- 2) Identify the work the subcontractor is to perform:
- 3) Bidder's factual basis for concluding that the subcontractor's work constitutes the required

Total \$ _____

IX. ATTACHMENTS TO SOLICITATION

IMPORTANT TAX NOTICE - NONRESIDENTS ONLY

Withholding Requirements for Payments to Nonresidents: Section 12-8-550 of the South Carolina Code of Laws requires persons hiring or contracting with a nonresident conducting a business or performing personal services of a temporary nature within South Carolina to withhold 2% of each payment made to the nonresident. The withholding requirement does not apply to (1) payments on purchase orders for tangible personal property when the payments are not accompanied by services to be performed in South Carolina, (2) nonresidents who are not conducting business in South Carolina, (3) nonresidents for contracts that do not exceed \$10,000 in a calendar year, or (4) payments to a nonresident who (a) registers with either the S.C. Department of Revenue or the S.C. Secretary of State and (b) submits a Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to the person letting the contract.

The withholding requirement applies to every governmental entity that uses a contract ("Using Entity"). Nonresidents should submit a separate copy of the Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to every Using Entity that makes payment to the nonresident pursuant to this solicitation. Once submitted, an affidavit is valid for all contracts between the nonresident and the Using Entity, unless the Using Entity receives notice from the Department of Revenue that the exemption from withholding has been revoked.

Section 12-8-540 requires persons making payment to a nonresident taxpayer of rentals or royalties at a rate of \$1,200.00 or more a year for the use of or for the privilege of using property in South Carolina to withhold 7% of the total of each payment made to a nonresident taxpayer who is not a corporation and 5% if the payment is made to a corporation. Contact the Department of Revenue for any applicable exceptions.

For information about other withholding requirements (e.g., employee withholding), contact the Withholding Section at the South Carolina Department of Revenue at 803-898-5383 or visit the Department's website at www.sctax.org.

This notice is for informational purposes only. This agency does not administer and has no authority over tax issues. All registration questions should be directed to the License and Registration Section at 803-898-5872 or to the South Carolina Department of Revenue, Registration Unit, Columbia, S.C. 29214-0140. All withholding questions should be directed to the Withholding Section at 803-898-5383.



STATE OF SOUTH CAROLINA
DEPARTMENT OF REVENUE
**NONRESIDENT TAXPAYER
REGISTRATION AFFIDAVIT
INCOME TAX WITHHOLDING**

I-312
(Rev. 5/7/04)
3323

The undersigned nonresident taxpayer on oath, being first duly sworn, hereby certifies as follows:

- 1. Name of Nonresident Taxpayer: _____
- 2. Trade Name, if applicable (Doing Business As): _____
- 3. Mailing Address: _____
- 4. Federal Identification Number: _____
- 5. Hiring or Contracting with: _____
- Name: _____
- Address: _____
- Receiving Rentals or Royalties From: _____
- Name: _____
- Address: _____
- Beneficiary of Trusts and Estates: _____
- Name: _____
- Address: _____

6. I hereby certify that the above named nonresident taxpayer is currently registered with
(check the appropriate box):
 The South Carolina Secretary of State or
 The South Carolina Department of Revenue

Date of Registration: _____

7. I understand that by this registration, the above named nonresident taxpayer has agreed to be subject to the jurisdiction of the South Carolina Department of Revenue and the courts of South Carolina to determine its South Carolina tax liability, including estimated taxes, together with any related interest and penalties.

8. I understand the South Carolina Department of Revenue may revoke the withholding exemption granted under Code Sections 12-8-540 (rentals), 12-8-550 (temporarily doing business or professional services in South Carolina), and 12-8-570 (distributions to nonresident beneficiary by trusts or estates) at any time it determines that the above named nonresident taxpayer is not cooperating with the Department in the determination of its correct South Carolina tax liability.

The undersigned understands that any false statement contained herein could be punished by fine, imprisonment or both.

Recognizing that I am subject to the criminal penalties under Code Section 12-54-44 (B) (6) (a) (i), I declare that I have examined this affidavit and to the best of my knowledge and belief, it is true, correct and complete.

(Seal)

Signature of Nonresident Taxpayer (Owner, Partner or Corporate Officer, when relevant)

Date

If Corporate officer state title:

(Name - Please Print)

Mail to: The company or individual you are contracting with.

OFFEROR'S CHECKLIST

AVOID COMMON BID/PROPOSAL MISTAKES

Review this checklist prior to submitting your bid/proposal.
If you fail to follow this checklist, you risk having your bid/proposal rejected.

- DO NOT INCLUDE ANY OF YOUR STANDARD CONTRACT FORMS!
- UNLESS EXPRESSLY REQUIRED, DO NOT INCLUDE ANY ADDITIONAL BOILERPLATE CONTRACT CLAUSES.
- REREAD YOUR ENTIRE BID/PROPOSAL TO MAKE SURE YOUR BID/PROPOSAL DOES NOT TAKE EXCEPTION TO ANY OF THE STATE'S MANDATORY REQUIREMENTS.
- MAKE SURE YOU HAVE PROPERLY MARKED ALL PROTECTED, CONFIDENTIAL, OR TRADE SECRET INFORMATION IN ACCORDANCE WITH THE INSTRUCTIONS ENTITLED: SUBMITTING CONFIDENTIAL INFORMATION. ***DO NOT MARK YOUR ENTIRE BID/PROPOSAL AS CONFIDENTIAL, TRADE SECRET, OR PROTECTED! DO NOT INCLUDE A LEGEND ON THE COVER STATING THAT YOUR ENTIRE RESPONSE IS NOT TO BE RELEASED!***
- HAVE YOU PROPERLY ACKNOWLEDGED ALL AMENDMENTS? INSTRUCTIONS REGARDING HOW TO ACKNOWLEDGE AN AMENDMENT SHOULD APPEAR IN ALL AMENDMENTS ISSUED.
- MAKE SURE YOUR BID/PROPOSAL INCLUDES A COPY OF THE SOLICITATION COVER PAGE. MAKE SURE THE COVER PAGE IS SIGNED BY A PERSON THAT IS AUTHORIZED TO CONTRACTUALLY BIND YOUR BUSINESS.
- MAKE SURE YOUR BID/PROPOSAL INCLUDES THE NUMBER OF COPIES REQUESTED.
- CHECK TO ENSURE YOUR BID/PROPOSAL INCLUDES EVERYTHING REQUESTED!
- IF YOU HAVE CONCERNS ABOUT THE SOLICITATION, DO NOT RAISE THOSE CONCERNS IN YOUR RESPONSE! **AFTER OPENING, IT IS TOO LATE! IF THIS SOLICITATION INCLUDES A PRE-BID/PROPOSAL CONFERENCE OR A QUESTION & ANSWER PERIOD, RAISE YOUR QUESTIONS AS A PART OF THAT PROCESS!** PLEASE SEE INSTRUCTIONS UNDER THE HEADING "SUBMISSION OF QUESTIONS" AND ANY PROVISIONS REGARDING PRE-BID/PROPOSAL CONFERENCES.

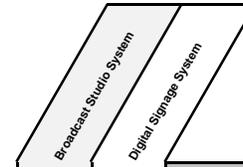
This checklist is included only as a reminder to help offerors avoid common mistakes.
Responsiveness will be evaluated against the solicitation, not against this checklist.
You do not need to return this checklist with your response.

APPENDIX G - EQUIPMENT LIST SPREADSHEET

University of South Carolina Alumni Association
School of Journalism Broadcast Studio
Construction Documents

AUDIOVISUAL SYSTEMS EQUIPMENT LIST

December 5, 2014



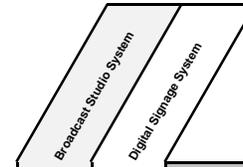
ITEM NO	LINE DIAGRAM REFERENCE	DESCRIPTION	MANUFACTURER	MODEL	SUBSTITUTION	Number of Identical Rooms / Systems ▶		BASE BID		
						1	1	QUANTITY	UNIT PRICE	EXTENDED PRICE
1	A-ALS EAR-A	ALS Single Ear Bud	Listen Technologies	LA-161	Equal As Approved	8		8		
2	A-AMP-N	Audio Amplifier, 200 Watts, 70V	Extron	XPA 2001-70V	Equal As Approved		2	2		
3	A-AMP-S	Audio Amplifier, 200 Watts, 8 Ohm, 2-Channel	Extron	XPA 4002	Equal As Approved	1		1		
4	A-AUTOMIXER-D	DSP Automixer, 10x6	Biamp	Nexia CS	Equal As Approved		1	1		
5	A-CLG SPKR-C	Ceiling Loudspeaker	Tannoy	CVS6	Equal As Approved		7	7		
6	A-CLG SPKR-L	Pendant Loudspeaker	Community	DP6	Equal As Approved		5	5		
7	A-FIBER RX-X	Fiber Receiver, 8-Channel Analog Audio (Part of Evertz Quote # DVEHQ7897)	Evertz	7707AR-A8+SC+3RU	Equal As Approved	1		1		
8	A-FIBER TX-X	Fiber Transmitter, 8-Channel Analog Audio (Part of Evertz Quote # DVEHQ7897)	Evertz	7707AT13-A8+SC+3RU	Equal As Approved	1		1		
9	A-IC HEADSET-A	Intercom Headset	Clearcom	CC-300	Equal As Approved	16		16		
10	A-IC INTERFACE-X	2-wire to 4-wire Camera Interface	Clearcom	IF4W4	Equal As Approved	1		1		
11	A-IC MAIN-A	Intercom Main Station	Clearcom	MS-702	Equal As Approved	1		1		
12	A-IC MAIN-B	Intercom Main Station	Clearcom	MS-704	Equal As Approved	1		1		
13	A-IC MIC-A	Intercom Gooseneck Microphone, 9-inches	Clearcom	GM-9	Equal As Approved	6		6		
14	A-IC REM-A	Intercom Remove Station	Clearcom	RM-702	Equal As Approved	4		4		
15	A-IC WALL-B	Intercom Wall Station	Clearcom	KB-702	Equal As Approved	1		1		
16	A-IC WLS BELT-X	Intercom Wireless Beltpack, 2-channel	Clearcom	CP-922A	Equal As Approved	6		6		
17	A-ICOM CARD-Y	2-wire/4-wire Intercom Transceiver, 3-Channel (Part of Evertz Quote # DVEHQ7897)	Evertz	7707IT13-3-F2+SC+3RU	Equal As Approved	2		2		
18	A-ICOM TX-X	Wireless Intercom Transmitter, 2-Channel	Clearcom	Tempest 2400	Equal As Approved	2		2		
19	A-IFB ACCESS-X	IFB Access Station	Clearcom	MA-704	Equal As Approved	3		3		
20	A-IFB CTRLR-X	IFB Controller	Clearcom	PIC-4704	Equal As Approved	1		1		
21	A-IFB MIC-X	IFB Gooseneck Microphone, 9-inches	Clearcom	GM-9	Equal As Approved	3		3		
22	A-IFB TX-X	IFB Wireless Transmitter	Clearcom	FTX-3	Equal As Approved	1		1		
23	A-IFB WLS BELT-X	IFB Wireless Beltpack Receiver	Clearcom	PRC-2-CLEARCOM	Equal As Approved	8		8		
24	A-LAV MIC-X	Microphone, Miniature Condenser Lavalier	Sony	ECM-77B	Equal As Approved	8		8		
25	A-MIC WS RX-C	Wireless Microphone Receiver, 2-Channel	Shure	UR4D+	Equal As Approved	4		4		
26	A-MIC WS TX-L	Wireless Microphone Bodypack Transmitter	Shure	UR1	Equal As Approved	8		8		
27	A-MIX A*CRD-B	Digital I/O Card for A-MIXER-X	Yamaha	MY16AE	Equal As Approved	1		1		
28	A-MIX A*CRD-G	Digital Output Card for A-MIXER-X	Yamaha	MY4DA	Equal As Approved	1		1		
29	A-MIXER-X	Digital Audio Mixer	Yamaha	LS9-32	Equal As Approved	1		1		
30	A-MIXER-Y	Stereo Audio Mixer, rack-mount	Rane	MLM 82S	Equal As Approved	1		1		
31	A-SPEAKER-I	Loudspeaker, Active, Surface-mount	Tannoy	Di5a	Equal As Approved	6		6		
32	A-SPEAKER-R	Loudspeaker, Surface-mount	Tannoy	DVS8	Equal As Approved	2		2		
33	A-TALENT RX-X	IFB Receiver	Clearcom	TR-50	Equal As Approved	4		4		
34	AV-BREAKOUT-X	Breakout Panel for Blackstorm Playlist Server (part of Ross quote # Q-25068-1)	Ross	104 Breakout Panel	Equal As Approved	1		1		
35	AV-CARD FRAME-X	Multiframe w/ 7800PS Redundant Power Supply, 3RU (Part of Evertz Quote # DVEHQ7897)	Evertz	7800FR+78P	Equal As Approved	3		3		
36	AV-CLIP SERVER-X	Playlist Server (part of Ross quote # Q-25068-1)	Ross	Blackstorm 102	Equal As Approved	1		1		
37	AV-DFC-K	HDSDI to HDMI Converter	Atlona	AT-3GSDI-HD2	Equal As Approved	3		3		
38	AV-DFC-M	HDSDI to HDMI Converter	Gefen	EXT-3GSDI-2-HDMI1.3	Equal As Approved	4		4		
39	AV-DM IN CRD-A	HDMI Input Card for DM Routers	Crestron	DMC-HD-DSP	No Substitution		25	25		
40	AV-DM IN CRD-D	DM 8G+ Input Card with Audio Downmix for DM Routers	Crestron	DMC-C-DSP	No Substitution		1	1		
41	AV-DM IN CRD-E	3G SDI Input Card for DM Routers	Crestron	DMC-SDI	No Substitution		1	1		
42	AV-DM OUT CRD-A	2 DM 8G+ with 1 HDMI Loop Output Card for DM Routers	Crestron	DMC-CO-HD	No Substitution		8	8		
43	AV-DM OUT CRD-B	2 HDMI with Stereo Audio Output Card for DM Routers	Crestron	DMC-HDO	No Substitution		1	1		
44	AV-DM RTR-C	32x32 DigitalMedia Router Frame	Crestron	DM-MD32X32	No Substitution		1	1		
45	AV-DM RX-A	DM 8G+ Twisted-pair Receiver	Crestron	DM-RMC-100-C	No Substitution		15	15		
46	AV-DM TX-C	DM 8G+ Twisted-pair Transmitter	Crestron	DM-TX-401-C	No Substitution		1	1		
47	AV-EVERTZ-X	Evertz Master Clock, Sync Distribution, Captioning and Fiber Transport (Part of Evertz Quote # DVEHQ7897)	Evertz	Various	Equal As Approved	1		1		
48	AV-FIBER RX-X	Fiber Receiver, Analog or SDI Video with 4-channel Analog Audio (Part of Evertz Quote # DVEHQ7897)	Evertz	7707ADVR+SC+3RU	Equal As Approved	2		2		
49	AV-FIBER RX-Y	Fiber Receiver, HDSDI and AES (Part of Evertz Quote # DVEHQ7897)	Evertz	7707MRA13-HD-W+SC+3RU	Equal As Approved	1		1		
50	AV-FIBER TX-X	Fiber Transmitter, Analog Video (Part of Evertz Quote # DVEHQ7897)	Evertz	7707ADVT13+SC+3RU	Equal As Approved	2		2		

APPENDIX G - EQUIPMENT LIST SPREADSHEET

University of South Carolina Alumni Association
School of Journalism Broadcast Studio
Construction Documents

AUDIOVISUAL SYSTEMS EQUIPMENT LIST

December 5, 2014



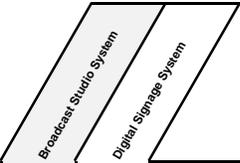
ITEM NO	LINE DIAGRAM REFERENCE	DESCRIPTION	MANUFACTURER	MODEL	SUBSTITUTION	Number of Identical Rooms / Systems ▶		BASE BID		
						1	1	QUANTITY	UNIT PRICE	EXTENDED PRICE
51	AV-FIBER TX-Y	Fiber Transmitter, HDSDI and AES (Part of Evertz Quote # DVEHQ7897)	Evertz	7707MTA13-HD-W+SC+3RU	Equal As Approved	1		1		
52	AV-HDMI DA-A	1x2 HDMI Distribution Amplifier	Key Digital	KD-HDDA1X2	Equal As Approved	1		1		
53	AV-LCD-B	46" Direct-lit LED LCD display	Samsung	DM48D	Equal As Approved	3		3		
54	AV-LCD-C	55" Direct-lit LED LCD display	Samsung	DM55D	Equal As Approved		3	3		
55	AV-LCD-D	65" Direct-lit LED display	Samsung	DM65D	Equal As Approved	3	3	6		
56	AV-LCD-X	55" Ultra-thin Bezel Direct-lit LED Display	Samsung	UD55C	Equal As Approved		9	9		
57	AV-MASTER CLK-X	Master Clock and Sync Generator (Part of Evertz Quote # DVEHQ7897)	Evertz	5601MSC+2PS+GP+HDTG	Equal As Approved	1		1		
58	AV-MONITOR-X	Orchid series dual 7" LCD display with waveform and vector	Marshall	QR-702	Equal As Approved	1		1		
59	AV-RECORDER-X	HD File-based Recorder/Player	AJA	Ki Pro Rack	Equal As Approved	2		2		
60	AV-TUNER-X	HD CATV Tuner, Ethernet Control	Contemporary Research	232-ATSC 4	Equal As Approved		10	10		
61	AV-WLS GATEWAY-X	Wireless Presentation Gateway	Crestron	AM-100	Equal As Approved	3		3		
62	C-KM-X	Keyboard/Mouse Drawer, rack-mount	NTI	RACKMUX-UKT-LC	Equal As Approved		1	1		
63	C-OVERLAY-X	Touch Overlay for 55" Display	PQ Labs	G4 Series 55"	Equal As Approved		6	6		
64					Equal As Approved	1		1		
65	C-PROCESSOR-B	3-Series Control System w/ compact flash card option	Crestron	PRO3	Equal As Approved		1	1		
66	C-PTZ-B	Multi-function PTZ controller	Panasonic	AW-RP120G	Equal As Approved	1		1		
67	C-ROUTER REM-X	40 button 32x8 router control panel (part of Ross quote # Q-25068-1)	Ross	RCP-NK1	Equal As Approved	1		1		
68	C-ROUTER-X	32-port RS-422 router (part of Ross quote # Q-25068-1)	Ross	NK-M32	Equal As Approved	1		1		
69	C-TIMER-X	Master up/down timer	ESE	ES-362UP	Equal As Approved	1		1		
70	C-TOUCHPANEL-A	2.8" Isys designer touch panel	Crestron	TPMC-3SMD	No Substitution	1		1		
71	C-TOUCHPANEL-B	7" touch panel	Crestron	TSW-752	No Substitution	1		1		
72	C-USB RX-X	USB UTP receiver	Crestron	USB-EXT	Equal As Approved		6	6		
73	C-USB TX-X	USB UTP transmitter	Crestron	USB-EXT	Equal As Approved		6	6		
74	T-LAN SWITCH-X	16 port POE switch	NETGEAR	FS116P	Equal As Approved		1	1		
75	V-CAMERA-K	HD Cam, 20x zoom HDMI, HDSDI, RGB, VID	Panasonic	AW-HE120	Equal As Approved	4		4		
76	V-CAMERA-SYS-X	Four (4) HD studio camera systems with color viewfinder, ENG lens, CCU and all parts - Sony Quote # 00062902	Sony	HXCD70H	Equal As Approved	1		1		
77	V-CAMERA-X	2/3" CCD studio camera with viewfinder, Fujinon lens and rear lens control (Part of Sony Quote # 00062902)	Sony	HXCD70H	Equal As Approved	4		4		
78	V-CC ENCODER-X	HD Closed Caption Encoder	Evertz	HD9084	Equal As Approved	1		1		
79	V-CCU-X	Camera Control Unit for Sony HXCD70H (Part of Sony Quote # 00062902)	Sony	HXCUB70	Equal As Approved	4		4		
80	V-DA CARD-X	Video Distribution Amplifier, 1x7 Analog Video w/ Equalization (Part of Evertz Quote # DVEHQ7897)	Evertz	7700ADA7-EQ+3RU	Equal As Approved	12		12		
81	V-FIBER RX-X	Fiber Receiver, 8-Channel 3G/HDSDI (Part of Evertz Quote # DVEHQ7897)	Evertz	7707VR-8-HS+S+3RU	Equal As Approved	1		1		
82	V-FIBER TX-X	Fiber Transmitter, 8-Channel 3G/HDSDI (Part of Evertz Quote # DVEHQ7897)	Evertz	7707VT-8-HS+13+3RU	Equal As Approved	1		1		
83	V-GRAPHICS-X	Graphics Engine (part of Ross quote # Q-25068-1)	Ross	XPression	Equal As Approved	1		1		
84	V-HDSDI DA-X	Video Distribution Amplifier, 1x7 HDSDI Re-clocking (Part of Evertz Quote # DVEHQ7897)	Evertz	7700DA7-HD+3RU	Equal As Approved	2		2		
85	V-KVM RX-X	KVM Receiver	NTI	ST-IPUSBH-R-1G	Equal As Approved	3		3		
86	V-KVM TX-X	KVM Transmitter	NTI	ST-IPUSBH-L-1G	Equal As Approved	3		3		
87	V-LCD-D	24" 1920X1080 LCD Monitor	Acer	S242HLbid	Equal As Approved		1	1		
88	V-LCD-X	24" 1920X1080 LCD Monitor	Samsung	T24B350ND	Equal As Approved	3		3		
89	V-MONITOR-X	21" 1920X1080 LED display	Samsung	S22C650D (LS22C65KDSV/G)	Equal As Approved	3		3		
90	V-PD SW X REM-X	Control Surface for Ross Carbonite C2S (part of Ross quote # Q-25068-1)	Ross	Carbonite C2S Surface	Equal As Approved	1		1		
91	V-PD SWITCH-X	High-Definition Production Switcher (Ross quote # Q-25068-1)	Ross	Carbonite C2S	Equal As Approved	1		1		
92	V-PROMPTER-X	19" Through-the-Glass Teleprompter	Prompter People	Proline 19"	Equal As Approved	4		4		
93	V-PROMPTER-Y	22" Teleprompter for Robotic Camera	Prompter People	RoboPrompter	Equal As Approved	4		4		
94	V-ROUTER-X	34x34 HDSDI Router (part of Ross quote # Q-25068-1)	Ross	NK-3G34	Equal As Approved	1		1		
95	V-SCAN CONV-X	Scan Converter	TVOne	C2-2105A	Equal As Approved	1		1		
96	X-CAM A MOUNT-B	Camera Mounting System	Vaddio	999-2225-001	Equal As Approved	1		1		

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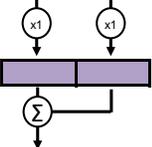
AUDIOVISUAL SYSTEMS EQUIPMENT LIST

December 5, 2014



ITEM NO	LINE DIAGRAM REFERENCE	DESCRIPTION	MANUFACTURER	MODEL	SUBSTITUTION	Number of Identical Rooms / Systems		BASE BID		
						1	1	QUANTITY	UNIT PRICE	EXTENDED PRICE
97	X-CONSOLE-X	Custom Control Room Consoles (front and back) (Winstead quote #23429414)	Winstead	Custom Consoles	Equal As Approved	1	1	1		
98	X-FILM-X	Polarized Film for Flat Panel Displays	Rosco	VIEWclear LCD 50	Equal As Approved	1	1	1		
99	X-FILTER-X	Rotating Filter for Manned Camera (includes adapter ring)	Rosco	MK II Rotator with step ring	Equal As Approved	1	1	1		
100	X-FILTER-Y	Rotating Camera Filter (includes Panasonic AW adapter)	Rosco	Compact Rotator	Equal As Approved	2	2	2		
101	X-FLAT PANEL MOUNT-B	Flat Panel Tilting Pole Mount w/ Accessories	Chief Mfg	TPM2000 Series	Equal As Approved		12	12		
102	X-FLAT PANEL MOUNT-X	Flat Panel Mount for Video Walls (Donor Wall Displays)	Premiere	LVMS	Equal As Approved		3	3		
103	X-GPS ANT-X	Included Option for AV-MASTER CLK-X (Part of Evertz Quote # DVEHQ7897)	Evertz	GPS Antenna	Equal As Approved	1	1	1		
104	X-LIGHTING SYS-X	DMX Controlled Lighting System - Instruments, Controls, etc. (Part of Brighline Quotes : 10247 and 10248)	Brightline	Custom Package(s)	Equal As Approved	1	1	1		
105	X-MON CART-X	Height and Tilt Adjustable Display Cart	Chief Mfg	PFM2000B	Equal As Approved	2	2	2		
106	X-PEDESTAL-X	Pedestal/Fluid Head Combo (Order code 2580)	Sachtler	System 25 Combi 1-40	Equal As Approved	4	4	4		
107	X-RACK-A	44RU Gangable Rack Enclosure	Middle Atlantic	WRK-44-32	Equal As Approved	2	1	3		
108	X-TRIPOD-X	Posilock Tripod with Fluid Head	Sachtler	ENG 75/2 D HD and FSB 8 T	Equal As Approved	4	4	4		

Equipment Price Subtotals		
Miscellaneous Materials Subtotals		
Labor Subtotals		
Tax (as applicable)		
TOTAL INSTALLED SYSTEM COSTS (each)		



BASE BID SUBTOTAL		
MEDIA TOWER LOWER ELEMENT ALLOWANCE	30,000	
DIGITAL SIGNAGE PLAYERS ALLOWANCE	25,000	
BONDING (if required)		
TOTAL AV SYSTEMS BASE BID		

