 <p style="text-align: center;"><b>UNIVERSITY OF SOUTH CAROLINA</b></p>	<p><b>Invitation for Bid</b></p>	<p>Solicitation Number: USC-IFB-3294-JB  Date Issued: May 9, 2018  Procurement Officer: Juaquana Brookins  Phone: 803.777.3596  E-Mail Address: <a href="mailto:jbrookin@fmc.sc.edu">jbrookin@fmc.sc.edu</a></p>	
--	----------------------------------	--	--

DESCRIPTION: **Provide AV System for William Brice Building School of Nursing**

USING GOVERNMENTAL UNIT: **University of South Carolina**

*The Term "Offer" Means Your "Bid" or "Proposal". Your offer must be submitted in a sealed package. Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Paper Offer or Modification" provision.*

<p><b>SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:</b></p>	
<p><b>MAILING ADDRESS:</b>  University of South Carolina  1600 Hampton Street, Suite 606  Columbia SC 29208</p>	<p><b>PHYSICAL ADDRESS:</b>  University of South Carolina  1600 Hampton Street, Suite 606  Columbia SC 29208</p>

SUBMIT OFFER BY (Opening Date/Time): **May 29, 2018 2:00 PM EST** (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: **May 17, 2018 11:00 AM EST** (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: **One(1) paper copy and One (1) USB Drive**

<p><b>CONFERENCE TYPE: Site Visit</b>  <b>DATE &amp; TIME: May 14, 2018 at 1:00 PM</b></p> <p>(As appropriate, see "Conferences - Pre-Bid/Proposal" &amp; "Site Visit" provisions)</p>	<p><b>LOCATION: USC</b>  <b>William Brice Building</b>  <b>1601 Greene Street</b>  <b>Columbia, SC 29208</b></p>
--	--

<p><b>AWARD &amp; AMENDMENTS</b></p>	<p>Award will be posted <b>06/01/2018</b>. The award, this solicitation, any amendments, and any related notices will be posted at the following web address: <a href="http://www.purchasing.sc.edu">http://www.purchasing.sc.edu</a></p>
--	---

You must submit a signed copy of this form with Your Offer. By signing, 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.  
(See "Signing Your Offer" provision.)

<p><b>NAME OF OFFEROR</b></p> <p>(full legal name of business submitting the offer)</p>	<p>Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. 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.</p>
<p><b>AUTHORIZED SIGNATURE</b></p> <p>(Person must be authorized to submit binding offer to contract on behalf of Offeror.)</p>	<p><b>DATE SIGNED</b></p>
<p><b>TITLE</b></p> <p>(business title of person signing above)</p>	<p><b>STATE VENDOR NO.</b></p> <p>(Register to Obtain S.C. Vendor No. at <a href="http://www.procurement.sc.gov">www.procurement.sc.gov</a>)</p>
<p><b>PRINTED NAME</b></p> <p>(printed name of person signing above)</p>	<p><b>STATE OF INCORPORATION</b></p> <p>(If you are a corporation, identify the state of incorporation.)</p>

<p><b>OFFEROR'S TYPE OF ENTITY: (Check one)</b> (See "Signing Your Offer" provision.)</p>		
<p><input type="checkbox"/> Sole Proprietorship</p>	<p><input type="checkbox"/> Partnership</p>	<p><input type="checkbox"/> Other _____</p>
<p><input type="checkbox"/> Corporate entity (not tax-exempt)</p>	<p><input type="checkbox"/> Corporation (tax-exempt)</p>	<p><input type="checkbox"/> Government entity (federal, state, or local)</p>

**PAGE TWO**  
(Return Page Two with Your Offer)

<p>HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)</p>          	<p>NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)</p>          <p>Area Code - Number - Extension                      Facsimile</p> <p>_____ E-mail Address</p>
--	---

<p>PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)</p>          <p>____ Payment Address same as Home Office Address          ____ Payment Address same as Notice Address (check only one)</p>	<p>ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)</p>          <p>____ Order Address same as Home Office Address          ____ Order Address same as Notice Address (check only one)</p>
--	---

**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	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

<p align="center"><b>DISCOUNT FOR PROMPT PAYMENT</b> (See "Discount for Prompt Payment" clause)</p>	<p align="center">10 Calendar Days (%)</p>	<p align="center">20 Calendar Days (%)</p>	<p align="center">30 Calendar Days (%)</p>	<p align="center">____ Calendar Days (%)</p>
---	--	--	--	--

**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](http://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**

University of South Carolina is soliciting bids from qualified sources to provide a new audiovisual system for the School of Nursing, which includes, equipment, labor, installation materials, programming, testing, training, and follow-up support for the audiovisual systems, as described herein.

### **ACQUIRE SERVICES & SUPPLIES / EQUIPMENT (JAN 2006)**

The purpose of this solicitation is to acquire services and supplies or equipment complying with the enclosed description and/or specifications and conditions.



## II. INSTRUCTIONS TO OFFERORS - A. GENERAL INSTRUCTIONS

### DEFINITIONS, CAPITALIZATION, AND HEADINGS (FEB 2015)

CLAUSE HEADINGS USED IN THIS SOLICITATION ARE FOR CONVENIENCE ONLY AND SHALL NOT BE USED TO CONSTRUE MEANING OR INTENT. EVEN IF NOT CAPITALIZED, THE FOLLOWING DEFINITIONS ARE APPLICABLE TO ALL PARTS OF THE SOLICITATION, UNLESS EXPRESSLY PROVIDED OTHERWISE.

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

**BOARD** means the South Carolina Budget & Control Board or its successor in interest.

**BUSINESS** means any corporation, partnership, individual, sole proprietorship, joint stock company, joint venture, or any other legal entity. [11-35-310(3)]

**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. [11-35-310(4)]

**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 clause of the contract titled "Changes," if included herein, authorizes the Procurement Officer to order without the consent of the contractor. [11-35-310(9)]

**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.

**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 either the Cover Page, an amendment, or an award notice.

**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 you contract with to perform or provide any part of the work.

**US or WE means the using governmental unit.**

**USING GOVERNMENTAL UNIT** means the unit(s) of government identified as such on the Cover Page. If the Cover Page identifies the Using Governmental Unit as "Statewide Term Contract," the phrase "Using Governmental Unit" means any South Carolina Public Procurement Unit [11-35-4610(5)] that has submitted a Purchase Order to you pursuant to the contract resulting from this solicitation. Reference the clauses titled "Purchase Orders" and "Statewide Term Contract."

**WORK** means all labor, materials, equipment, services, or property of any type, provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract.

### AMENDMENTS TO SOLICITATION

(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.

**AUTHORIZED AGENT (FEB 2015)**

All authority regarding 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 or the resulting contract.

**AWARD NOTIFICATION (FEB 2015)**

Notice regarding any award, cancellation of award, or extension of award will be posted at the location and on the date specified on the Cover Page or, if applicable, any notice of extension of award. 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.

**BID / PROPOSAL AS OFFER TO CONTRACT (JAN 2004)**

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 (JAN 2004)**

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 (JAN 2004)**

Offers submitted in response to this solicitation shall be in the English language and in US dollars, unless otherwise permitted by the Solicitation.

**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.

(c) If the offeror deletes or modifies paragraph (a)(2) of this certification, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

#### **CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS (JAN 2004)**

(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 nonresponsible.

(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.

#### **CODE OF LAWS AVAILABLE (JAN 2006)**

The South Carolina Code of Laws, including the Consolidated Procurement Code, is available at

<http://www.scstatehouse.gov/code/statmast.php>. The South Carolina Regulations are available at:

<http://www.scstatehouse.gov/coderegs/statmast.php>.

#### **DISCLOSURE OF CONFLICTS OF INTEREST OR UNFAIR COMPETITIVE ADVANTAGE (FEB 2015)**

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. Without limiting the foregoing, you represent that your offer identifies any services that relate to either this solicitation or the work and that has already been performed by you, a proposed subcontractor, or an affiliated business of either.

#### **DEADLINE FOR SUBMISSION OF OFFER (JAN 2004)**

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)]

#### **DRUG FREE WORK PLACE CERTIFICATION (JAN 2004)**

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 (FEB 2015)**

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. All ambiguities, discrepancies, errors, omissions, or conflicting statements in the Solicitation shall be interpreted to require the better quality or greater quantity of work and/or materials, unless otherwise directed by amendment. Offeror assumes responsibility for any patent ambiguity in the Solicitation that Offeror does not bring to the State's attention. See clause entitled "Questions from Offerors."

### **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.

### **IRAN DIVESTMENT ACT - CERTIFICATION (JAN 2015)**

(a) The Iran Divestment Act List is a list published by the Board pursuant to Section 11-57-310 that identifies persons engaged in investment activities in Iran. Currently, the list is available at the following URL: <http://procurement.sc.gov/PS/PS-iran-divestment.phtm> (.). Section 11-57-310 requires the government to provide a person ninety days written notice before he is included on the list. The following representation, which is required by Section 11-57-330(A), is a material inducement for the State to award a contract to you. (b) By signing your Offer, you certify that, as of the date you sign, you are not on the then-current version of the Iran Divestment Act List. (c) You must notify the Procurement Officer immediately if, at any time before posting of a final statement of award, you are added to the Iran Divestment Act List.

### **OMIT TAXES FROM PRICE (JAN 2004)**

Do not include any sales or use taxes in Your price that the State may be required to pay.

### **OPEN TRADE REPRESENTATION (JUN 2015)**

By submitting an Offer, Offeror represents that Offeror is not currently engaged in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in SC Code Section 11-35-5300.

### **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". [Section 11-35-4210]

### **PROHIBITED COMMUNICATIONS AND DONATIONS (FEB 2015)**

Violation of these restrictions may result in disqualification of your offer, suspension or debarment, and may constitute a violation of law.

(a) During the period between publication of the solicitation and final award, ***you must not communicate, directly or indirectly, with the Using Governmental Unit or its employees, agents or officials regarding any aspect of this procurement activity***, unless otherwise approved in writing by the Procurement Officer. All communications must be solely with the Procurement Officer. [R. 19-445.2010]

(b) You are advised to familiarize yourself with Regulation 19-445.2165, which restricts donations to a governmental entity with whom you have or seek to have a contract. ***You represent that your offer discloses***

**any gifts made, directly or through an intermediary, by you or your named subcontractors to or for the benefit of the Using Governmental Unit during the period beginning eighteen months prior to the Opening Date.** [R. 19-445.2165]

#### **PUBLIC OPENING (JAN 2004)**

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 (FEB 2015)**

**Submit Questions via Email only to [jbrookin@fmc.sc.edu](mailto:jbrookin@fmc.sc.edu)**

**Subject: USC-IFB-3294-JB AV System for William Brice Building School of Nursing**

(a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing. Questions regarding the original solicitation or any amendment must be received by the Procurement Officer no later than five (5) days prior to opening unless an earlier date is 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. [See R. 19-445.2042(B)] 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. See clause entitled "Duty to Inquire." We will not identify you in our answer to your question. (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. [See R. 19-445.2140]

#### **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 (JUN 2015)**

(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.

(f) **Do not submit bid samples or descriptive literature unless expressly requested.** Unsolicited bid samples or descriptive literature will not be examined or tested, will not be used to determine responsiveness, and will not be deemed to vary any of the provisions of the solicitation. S.C. Code Ann. Reg. 19-445.2077(D).

#### **SIGNING YOUR OFFER (JAN 2004)**

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 (JAN 2004)**

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/planandprepare/disasters/severe-winter-weather>

#### **SUBMITTING CONFIDENTIAL INFORMATION (FEB 2015)**

(An overview is available at [www.procurement.sc.gov](http://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 agencies, officers and employees, from every claim, demand, loss, expense, cost, damage or injury, including attorney's fees, arising out of or resulting from withholding information by the State of South Carolina or any of its agencies, that Offeror marked as "confidential" or "trade secret" or "PROTECTED". (All references to S.C. Code of Laws.)

#### **SUBMITTING A PAPER OFFER OR MODIFICATION**

**Paper offers are required.** (a) 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). (b) (1) All copies of the offer or modification, and any other documents required to be submitted with the offer shall be enclosed in a sealed, opaque envelope or package. (2) Submit your offer or modification to the address on the Cover Page. (3) The envelope or package must show the time and date specified for opening, the solicitation number, and the name and address of the bidder. If the offer or modification is sent by mail or special delivery service (UPS, Federal Express, etc.), the outermost envelope or wrapper must be labeled "OFFER ENCLOSED" on the face thereof. (c) If you are responding to more than one solicitation, submit each offer in a separate envelope or package. (d) Submit the number of copies indicated on the Cover Page. (e) Facsimile or e-mail offers, modifications, or withdrawals, will not be considered unless authorized 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.

#### **TAXPAYER IDENTIFICATION NUMBER (JAN 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 (JAN 2004)**

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.

## **INSTRUCTIONS TO OFFERORS -- B. SPECIAL INSTRUCTIONS**

### **CLARIFICATION (NOV 2007)**

Pursuant to Section 11-35-1520(8), 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 11-35-1520(8); R.19-445.2080]

### **ELECTRONIC COPIES – REQUIRED MEDIA AND FORMAT (MAR 2015)**

In addition to your original offer, you must submit an electronic copy on a **USB drive**. Submit the number of copies indicated on the cover page. Each copy should be on separate media. Your business and technical proposals must be on separate media. Every disk or USB drive must be labeled with the solicitation number and the offeror's name, and specify whether its contents address technical proposal or business proposal. If multiple-disk sets are provided, each disk in the set must be appropriately identified as to its relationship to the set, e.g., 1 of 2. The electronic copy must be identical to the original offer. File format shall be compatible with Microsoft Office (version 2003 or later), or Adobe Acrobat or equivalent Portable Document Format (.pdf) viewer. The Procurement Officer must be able to view, search, copy and print electronic documents without a password.

### **DESCRIPTIVE LITERATURE – LABELLING (JAN 2006)**

Include offeror's name on the cover of any specifications or descriptive literature submitted with your offer.

### **OFFERING BY ITEM OR LOT (JAN 2006)**

Offers may be submitted for complete lots or for one or more items not within lots. Failure to offer on all items within a single lot will be reason for rejection.

### **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](http://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 - SC/US END-PRODUCT (SEP 2009)**

Section 11-35-1524 provides a preference to vendors offering South Carolina end-products or US end-products, if those products are made, manufactured, or grown in SC or the US, respectively. An end-product is the tangible project identified for acquisition in this solicitation, including all component parts in final form and ready for the use intended. The terms "made," "manufactured," and "grown" are defined by Section 11-35-1524(A). By signing your offer and checking the appropriate space(s) provided and identified on the bid schedule, you certify that the end-product(s) is either made, manufactured or grown in South Carolina, or other states of the United States, as applicable. Preference will be applied as required by law. Post award substitutions are prohibited. See "Substitutions Prohibited - End Product Preferences (Sep 2009)" provision.

### **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.**

#### **PREFERENCES - RESIDENT VENDOR PREFERENCE (SEP 2009)**

To qualify for the RVP, 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 either: (1) maintain at a location in South Carolina at the time of the bid an inventory of expendable items which are representative of the general type of commodities for which the award will be made and which have a minimum total value, based on the bid price, equal to the lesser of fifty thousand dollars [\$50,000] or the annual amount of the contract; or (2) be a manufacturer headquartered and having an annual payroll of at least one million dollars in South Carolina and the end product being sold is either made or processed from raw materials into a finished end product by that manufacturer or its affiliate (as defined in Section 1563 of the Internal Revenue Code).

#### **PROTEST - CPO - ITMO ADDRESS (JUN 2006)**

Any protest must be addressed to the Chief Procurement Officer, Information Technology Management Office, and submitted in writing

(a) by email to [protest-itmo@itmo.sc.gov](mailto:protest-itmo@itmo.sc.gov),

(b) by facsimile at 803-737-0102, or

(c) by post or delivery to 1201 Main Street, Suite 601, Columbia, SC 29201.

#### **SITE VISIT (JAN 2006)**

A site visit will be held at the following date, time and location. Your failure to attend will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the State. The State assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available at the conference. Nor does the State assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

**Date & Start Time: May 14, 2018 at 1:00 PM**

**Contact Person's Name: Al Lindsay**

**Contact's Phone Number: 803.777.1140**

**Location: USC, William Brice Building, 1601 Greene Street, Columbia, SC 29208**

#### **UNIT PRICES REQUIRED (JAN 2006)**

Unit price to be shown for each item.

### **III. SCOPE OF WORK/SPECIFICATIONS**

Please see **Attachment A- Section A- Design and Performance Requirements** for STATEMENT OF WORK.

#### **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.

#### **QUALITY – NEW (JAN 2006)**

All items must be new.

#### **TECHNICAL SUPPORT – INCLUDED (JAN 2006)**

Upon request, contractor shall provide technical assistance or service. Such service shall be available within hours following request.

#### **TRAINING (JAN 2006)**

Upon request, contractor shall demonstrate equipment within days after delivery

#### IV. INFORMATION FOR OFFERORS TO SUBMIT

##### INFORMATION FOR OFFERORS TO SUBMIT – GENERAL

**You shall submit a signed Cover Page and Page Two.** Your offer should include 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 Part IX. Attachments to Solicitations. You should submit a summary of all insurance policies you have or plan to acquire to comply with the insurance requirements stated herein, if any, including policy types; coverage types; limits, sub-limits, and deductibles for each policy and coverage type; the carrier's A.M. Best rating; and whether the policy is written on an occurrence or claims-made basis.

##### 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 (MAR 2015)

(1) To be eligible for award, you must have the capability in all respects to perform fully the contract requirements and the integrity and reliability which will assure good faith performance. We may also consider a documented commitment from a satisfactory source that will provide you with a capability. We may consider information from any source at any time prior to award. We may elect to consider (i) key personnel, any predecessor business, and any key personnel of any predecessor business, including any facts arising prior to the date a business was established, and/or (ii) any subcontractor you identify. (2) You must promptly furnish satisfactory evidence of responsibility upon request. Unreasonable failure to supply requested information is grounds for rejection. (3) **Corporate subsidiaries are cautioned that the financial capability of an affiliated or parent company will not be considered in determining financial capability**; however, we may elect to consider any security, e.g., letter of credit, performance bond, parent-company corporate guaranty, that you offer to provide Instructions and forms to help assure acceptability are posted on [procurement.sc.gov](http://procurement.sc.gov), link to "Standard Clauses & Provisions."

### QUALIFICATIONS – REQUIRED INFORMATION (MAR 2015)

Submit the following information or documentation for you and for any subcontractor (at any tier level) that you identify pursuant to the clause titled Subcontractor – Identification. Err on the side of inclusion. You represent that the information provided is complete. (a) The general history and experience of the business in providing work of similar size and scope. (b) Information reflecting the current financial position. Include the most current financial statement and financial statements for the last two fiscal years. If the financial statements have been audited in accordance with the following requirements, provide the audited version of those statements. [Reference Statement of Financial Accounting Concepts No. 5 (FASB, December, 1984), as amended.] (c) A detailed, narrative statement listing the three most recent, comparable contracts (including contact information) which have been performed. For each contract, describe how the supplies or services provided are similar to those requested by this solicitation, and how they differ. (d) A list of every business for which supplies or services substantially similar to those sought with this solicitation have been provided, at any time during the past three years. (e) A list of every South Carolina public body for which supplies or services have been provided at any time during the past three years, if any. (f) List of failed projects, suspensions, debarments, and significant litigation.

#### 1. Please see Appendix C- Pre Bid Forms.

### SUBCONTRACTOR – IDENTIFICATION (FEB 2015)

If you intend to subcontract, at any tier level, with another business for any portion of the work and that portion either (1) exceeds 10% of your cost, (2) involves access to any "government information," as defined in the clause entitled "Information Security - Definitions," if included, or (3) otherwise involves services critical to your performance of the work (err **on the** side of inclusion), your offer must identify that business and the 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 contact and evaluate your proposed subcontractors.

## **VI. AWARD CRITERIA**

### **AWARD BY LOT (JAN 2006)**

Award will be made by complete lot(s).

### **AWARD CRITERIA – BIDS (JAN 2006)**

Award will be made to the lowest responsible and responsive bidder(s).

### **AWARD TO ONE OFFEROR (JAN 2006)**

Award will be made to one Offeror.

### **UNIT PRICE GOVERNS (JAN 2006)**

In determining award, unit prices will govern over extended prices unless otherwise stated.

## **VII. TERMS AND CONDITIONS -- A. GENERAL**

### **ASSIGNMENT, NOVATION, AND CHANGE OF NAME, IDENTITY, OR STRUCTURE (FEB 2015)**

(a) Contractor shall not assign this contract, or its rights, obligations, or any other interest arising from this contract, or delegate any of its performance obligations, without the express written consent of the responsible procurement officer. The foregoing restriction does not apply to a transfer that occurs by operation of law (e.g., bankruptcy; corporate reorganizations and consolidations, but not including partial asset sales). Notwithstanding the foregoing, contractor may assign monies receivable under the contract provided that the state shall have no obligation to make payment to an assignee until thirty days after contractor (not the assignee) has provided the responsible procurement officer with (i) proof of the assignment, (ii) the identity (by contract number) of the specific state contract to which the assignment applies, and (iii) the name of the assignee and the exact address or account information to which assigned payments should be made. (b) If contractor amends, modifies, or otherwise changes its name, its identity (including its trade name), or its corporate, partnership or other structure, or its FEIN, contractor shall provide the procurement officer prompt written notice of such change. (c) Any name change, transfer, assignment, or novation is subject to the conditions and approval required by Regulation 19-445.2180, which does not restrict transfers by operation of law.

### **BANKRUPTCY - GENERAL (FEB 2015)**

(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 two (2) 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 (JAN 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 (FEB 2015)**

(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) the solicitation, as amended, (3) documentation of clarifications [11-35-1520(8)] or discussions [11-35-1530(6)] of an offer, if applicable, (4) your offer, (5) any statement reflecting the state's final acceptance (a/k/a "award"), and (6) 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 (5) above shall apply notwithstanding any additional or different terms and conditions in any other document, including without limitation, (i) a purchase order or other instrument submitted by the State, (ii) any invoice or other document submitted by Contractor, or (iii) any privacy policy, terms of use, or end user agreement. 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 (JAN 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 (JAN 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 (JAN 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 (JAN 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 (JAN 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.

**IRAN DIVESTMENT ACT – ONGOING OBLIGATIONS – (JAN 2015)**

(a) You must notify the procurement officer immediately if, at any time during the contract term, you are added to the Iran Divestment Act List. (b) Consistent with Section 11-57-330(B), you shall not contract with any person to perform a part of the Work, if at the time you enter into the subcontract, that person is on the then-current version of the Iran Divestment Act List.

**NO INDEMNITY OR DEFENSE (FEB 2015)**

Any term or condition is void to the extent it requires the State to indemnify, defend, or pay attorney's fees to anyone for any reason.

**NOTICE (JAN 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.

**OPEN TRADE (JUN 2015)**

During the contract term, including any renewals or extensions, Contractor will not engage in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in SC Code Section 11-35-5300.

**PAYMENT & INTEREST (FEB 2015)**

(a) 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 mailed to the payment address on "Page Two." (c) Notwithstanding any other provision, payment shall be made in accordance with S.C. Code Section 11-35-45, or Chapter 6 of Title 29 (real property improvements) when applicable, 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, unless otherwise required by Section 29-6-30. (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. Section 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. (f) The State shall have all of its common law, equitable and statutory rights of set-off.

#### **PUBLICITY (JAN 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 (JAN 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.

#### **SURVIVAL OF OBLIGATIONS (JAN 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 (JAN 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 (JAN 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 (JAN 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 (JAN 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.sa.sc.edu/shs/hipaa>

### **BANKRUPTCY – GOVERNMENT INFORMATION (FEB 2015)**

(a) All government information (as defined in the clause herein entitled "Information Security - Definitions") shall belong exclusively to the State, and Contractor has no legal or equitable interest in, or claim to, such information. Contractor acknowledges and agrees that in the event Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, government information in its possession and/or under its control will not be considered property of its bankruptcy estate.

(b) Contractor agrees to notify the State within forty-eight (48) hours of any determination that it makes to file for bankruptcy protection, and Contractor further agrees to turn over to the State, before such filing, all government information that is in Contractor's possession in a format that can be readily utilized by the State.

(c) In order to protect the integrity and availability of government information, Contractor shall take reasonable measures to evaluate and monitor the financial circumstances of any subcontractor that will process, store, transmit or access government information.

### **CHANGES (JAN 2006)**

(1) Contract Modification. By a written order, at any time, and without notice to any surety, the Procurement Officer may, subject to all appropriate adjustments, make changes within the general scope of this contract in any one or more of the following:

(a) drawings, designs, or specifications, if the supplies to be furnished are to be specially manufactured for the [State] in accordance therewith;

(b) method of shipment or packing;

(c) place of delivery;

(d) description of services to be performed;

(e) time of performance (i.e., hours of the day, days of the week, etc.); or,

(f) place of performance of the services. Subparagraphs (a) to (c) apply only if supplies are furnished under this contract. Subparagraphs (d) to (f) apply only if services are performed under this contract.

(2) Adjustments of Price or Time for Performance. If any such change increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made in the contract price, the delivery schedule, or both, and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract. Failure of the parties to agree to an adjustment shall not excuse the contractor from proceeding with the contract as changed, provided that the State promptly and duly make such provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the contractor shall not be deemed to have prejudiced any claim for additional compensation, or an extension of time for completion.

(3) Time Period for Claim. Within 30 days after receipt of a written contract modification under Paragraph (1) of this clause, unless such period is extended by the Procurement Officer in writing, the contractor shall file notice of intent to assert a claim for an adjustment. Later notification shall not bar the contractor's claim unless the State is prejudiced by the delay in notification.

(4) Claim Barred After Final Payment. No claim by the contractor for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this contract.

### **CISG (JAN 2006)**

The parties expressly agree that the UN Convention on the International Sale of Goods shall not apply to this agreement.

### **COMPLIANCE WITH LAWS (JAN 2006)**

During the term of the contract, contractor shall comply with all applicable provisions of laws, codes, ordinances, rules, regulations, and tariffs.

### **CONFERENCE – PRE-PERFORMANCE (JAN 2006)**

Unless waived by the Procurement Officer, a pre-performance conference between the contractor, state and Procurement Officer shall be held at a location selected by the state within five (5) days after final award, and prior to commencement of work under the contract. The responsibilities of all parties involved will be discussed to assure a meeting of the minds of all concerned. The successful contractor or his duly authorized representative shall be required to attend at contractor's expense.

### **CONTRACTOR'S LIABILITY INSURANCE - GENERAL (FEB 2015)**

(a) Without limiting any of the obligations or liabilities of Contractor, Contractor shall procure from a company or companies lawfully authorized to do business in South Carolina and with a current A.M. Best rating of no less than A: VII, and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work and the results of that work by the contractor, his agents, representatives, employees or subcontractors.

(b) Coverage shall be at least as broad as:

(1) Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal and advertising injury, with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, the general aggregate limit shall be twice the required occurrence limit. This contract shall be considered to be an "insured contract" as defined in the policy.

(2) Auto Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limits no less than \$1,000,000 per accident for bodily injury and property damage.

(3) Worker's Compensation: As required by the State of South Carolina, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

(c) Every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them, must be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used.

(d) For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance as respects the State, every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them. Any insurance or self-insurance maintained by the State, every applicable Using Governmental Unit, or the officers, officials, employees and volunteers of any of them, shall be excess of the Contractor's insurance and shall not contribute with it.

(e) Prior to commencement of the work, the Contractor shall furnish the State with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this section. All certificates are to be received and approved by the State before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The State reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by this section, at any time.

(f) Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. In addition, the Contractor shall notify the State immediately upon receiving any information that any of the coverages required by this section are or will be changed, cancelled, or replaced.

(g) Contractor hereby grants to the State and every applicable Using Governmental Unit a waiver of any right to subrogation which any insurer of said Contractor may acquire against the State or applicable Using Governmental Unit by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the State or Using Governmental Unit has received a waiver of subrogation endorsement from the insurer.

(h) Any deductibles or self-insured retentions must be declared to and approved by the State. The State may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

(i) The State reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

### **CONTRACTOR PERSONNEL (JAN 2006)**

The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

### **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.

### **CONTRACTOR'S USE OF STATE PROPERTY (JAN 2006)**

Upon termination of the contract for any reason, the State shall have the right, upon demand, to obtain access to, and possession of, all State properties, including, but not limited to, current copies of all State application programs and necessary documentation, all data, files, intermediate materials and supplies held by the contractor. Contractor shall not use, reproduce, distribute, display, or sell any data, material, or documentation owned exclusively by the State without the State's written consent, except to the extent necessary to carry out the work.

### **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.

### **DISPOSAL OF PACKAGING (JAN 2006)**

Contractor shall dispose of all wrappings, crating, and other disposable materials pertaining to this contract at

the end of each working day and upon completion of installation.

#### **ILLEGAL IMMIGRATION (NOV 2008)**

(An overview is available at [www.procurement.sc.gov](http://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.

#### **INDEMNIFICATION-THIRD PARTY CLAIMS – GENERAL (NOV 2011)**

Notwithstanding any limitation in this agreement, and to the fullest extent permitted by law, Contractor shall defend and hold harmless Indemnitees for and against any and all suits or claims of any character (and all related damages, settlement payments, attorneys' fees, costs, expenses, losses or liabilities) by a third party which are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property arising out of or in connection with the goods or services acquired hereunder or caused in whole or in part by any act or omission of contractor, its subcontractors, their employees, workmen, servants, agents, or anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by an Indemnitee, and whether or not such claims are made by a third party or an Indemnitee; however, if an Indemnitee's negligent act or omission is subsequently determined to be the sole proximate cause of a suit or claim, the Indemnitee shall not be entitled to indemnification hereunder. Contractor shall be given timely written notice of any suit or claim. Contractor's obligations hereunder are in no way limited by any protection afforded under workers' compensation acts, disability benefits acts, or other employee benefit acts. This clause shall not negate, abridge, or reduce any other rights or obligations of indemnity which would otherwise exist. The obligations of this paragraph shall survive termination, cancellation, or expiration of the parties' agreement. This provision shall be construed fairly and reasonably, neither strongly for nor against either party, and without regard to any clause regarding insurance. As used in this clause, "Indemnitees" means the State of South Carolina, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees.

#### **INDEMNIFICATION - INTELLECTUAL PROPERTY (JAN 2006)**

(a) Without limitation and notwithstanding any provision in this agreement, Contractor shall, upon receipt of notification, defend and indemnify the State, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees against all actions, proceedings or claims of any nature (and all damages, settlement payments, attorneys' fees (including inside counsel), costs, expenses, losses or liabilities attributable thereto) by any third party asserting or involving an IP right related to an acquired item. State shall allow Contractor to defend such claim so long as the defense is diligently and capably prosecuted. State shall allow Contractor to settle such claim so long as (i) all settlement payments are made by Contractor, and (ii) the settlement imposes no non-monetary obligation upon State. State shall reasonably cooperate with Contractor's defense of such claim. (b) In the event an injunction or order shall be obtained against State's use of any acquired item, or if in Contractor's opinion, the acquired item is likely to become the subject of a claim of infringement or violation of an IP right, Contractor shall, without in any way limiting the foregoing, and at its expense, either: (1) procure for State the right to continue to use, or have used, the acquired item, or (2) replace or modify the acquired item so that it becomes non-infringing but only if the modification or replacement does not adversely affect the specifications for the acquired item or its use by State. If neither (1) nor (2), above, is practical, State may require that Contractor remove the acquired item from State, refund to State any charges paid by State therefor, and take all steps necessary to have State released from any further liability. (c) Contractor's obligations under this paragraph do not apply to a claim to the extent (i) that the claim is caused by Contractor's compliance with specifications furnished by the State unless Contractor knew its compliance with the State's specifications would infringe an IP right, or (ii) that the claim is caused by Contractor's compliance with specifications furnished by the State if the State knowingly relied on a third party's IP right to develop the specifications provided to Contractor and failed to identify such product to Contractor. (d) As used in this paragraph, these terms are defined as follows: "IP right(s)" means a patent, copyright, trademark, trade secret, or any other proprietary right. "Acquired item(s)" means the rights, goods, or services furnished under this agreement. "Specification(s)" means a detailed, exact statement of particulars such as a statement prescribing materials, dimensions, and quality of work. (e) Contractor's obligations under this clause shall survive the termination, cancellation, rejection, or expiration of this Agreement.

## **INFORMATION SECURITY - DEFINITIONS (FEB 2015)**

**The following definitions are used in those clauses that cross reference this clause.**

**Compromise** means disclosure of information to unauthorized persons, or a violation of the security policy of a system in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object may have occurred. Without limitation, the term "compromise" includes copying the data through covert network channels, or copying the data to unauthorized media, or disclosure of information in violation of any obligation imposed by this contract.

**Data** means a subset of information in an electronic format that allows it to be retrieved or transmitted.

**Government information** means information (i) provided to Contractor by, or generated by Contractor for, the using governmental unit, or (ii) acquired or accessed by Contractor as a result of performing the Work. Without limiting the foregoing, government information includes any information that Contractor acquires or accesses by software or web-based services, which includes, without limitation, any metadata or location data. Government information excludes unrestricted information.

**Information** means any communication or representation of knowledge such as facts, statistics, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual.

**Information system** means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

**Public information** means any specific information, regardless of form or format, that the State has actively and intentionally disclosed, disseminated, or made available to the public. Information is not public information solely because it may be subject to inspection pursuant to an unfulfilled public records request.

**Software** means any computer program accessed or used by the Using Governmental Unit or a third party pursuant to or as a result of this contract.

**Third party** means any person or entity other than the Using Governmental Unit, the Contractor, or any subcontractors at any tier.

**Unrestricted information** means (1) public information acquired other than through performance of the work, (2) information acquired by Contractor prior to contract formation, (3) information incidental to your contract administration, such as financial, administrative, cost or pricing, or management information, and (4) any ideas, concepts, know-how, methodologies, processes, technologies, techniques which Contractor develops or learns in connection with Contractor's performance of the work.

**Web-based service** means a service accessed over the Internet and acquired, accessed, or used by the using governmental unit or a third party pursuant to or as a result of this contract, including without limitation, cloud services, software-as-a service, and hosted computer services.

## **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.

## **MATERIAL AND WORKMANSHIP (JAN 2006)**

Unless otherwise specifically provided in this contract, all equipment, material, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade for the purpose intended.

## **PRICE ADJUSTMENTS (JAN 2006)**

(1) Method of Adjustment. Any adjustment in the contract price made pursuant to a clause in this contract shall be consistent with this Contract and shall be arrived at through whichever one of the following ways is the most valid approximation of the actual cost to the Contractor (including profit, if otherwise allowed):

- (a) by agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
- (b) by unit prices specified in the Contract or subsequently agreed upon;
- (c) by the costs attributable to the event or situation covered by the relevant clause, including profit if otherwise allowed, all as specified in the Contract; or subsequently agreed upon;
- (d) in such other manner as the parties may mutually agree; or,
- (e) in the absence of agreement by the parties, through a unilateral initial written determination by the Procurement Officer of the costs attributable to the event or situation covered by the clause, including profit if otherwise allowed, all as computed by the Procurement Officer in accordance with generally accepted accounting principles, subject to the provisions of Title 11, Chapter 35, Article 17 of the S.C. Code of Laws.

(2) Submission of Price or Cost Data. Upon request of the Procurement Officer, the contractor shall provide reasonably available factual information to substantiate that the price or cost offered, for any price adjustments is reasonable, consistent with the provisions of Section 11-35-1830.

#### **PRICE ADJUSTMENTS – LIMITED BY CPI “OTHER GOODS & SERVICES” (JAN 2006)**

Upon request and adequate justification, the Procurement Officer may grant a price increase up to, but not to exceed, the unadjusted percent change for the most recent 12 months for which data is available, that is not subject to revision, in the Consumer Price Index (CPI) for all urban consumers (CPI-U), “Other Goods & Services” for services, as determined by the Procurement Officer. The Bureau of Labor and Statistics publishes this information on the web at [www.bls.gov](http://www.bls.gov)

#### **PRICING DATA – AUDIT – INSPECTION (JAN 2006)**

[Clause Included Pursuant to Section 11-35-1830, - 2210, & -2220] (a) Cost or Pricing Data. Upon Procurement Officer’s request, you shall submit cost or pricing data, as defined by 48 C.F.R. Section 2.101 (2004), prior to either (1) any award to contractor pursuant to 11-35-1530 or 11-35-1560, if the total contract price exceeds \$500,000, or (2) execution of a change order or contract modification with contractor which exceeds \$100,000. Your price, including profit or fee, shall be adjusted to exclude any significant sums by which the state finds that such price was increased because you furnished cost or pricing data that was inaccurate, incomplete, or not current as of the date agreed upon between parties. (b) Records Retention. You shall maintain your records for three years from the date of final payment, or longer if requested by the chief Procurement Officer. The state may audit your records at reasonable times and places. As used in this subparagraph (b), the term “records” means any books or records that relate to cost or pricing data submitted pursuant to this clause. In addition to the obligation stated in this subparagraph (b), you shall retain all records and allow any audits provided for by 11-35-2220(2). (c) Inspection. At reasonable times, the state may inspect any part of your place of business which is related to performance of the work. (d) Instructions Certification. When you submit data pursuant to subparagraph (a), you shall (1) do so in accordance with the instructions appearing in Table 15-2 of 48 C.F.R. Section 15.408 (2004) (adapted as necessary for the state context), and (2) submit a Certificate of Current Cost or Pricing Data, as prescribed by 48 CFR Section 15.406-2(a) (adapted as necessary for the state context). (e) Subcontracts. You shall include the above text of this clause in all of your subcontracts. (f) Nothing in this clause limits any other rights of the state.

#### **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.

#### **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.

#### **RESTRICTIONS ON PRESENTING TERMS OF USE OR OFFERING ADDITIONAL SERVICES (FEB 2015)**

(a) Citizens, as well as public employees (acting in their individual capacity), should not be unnecessarily required to agree to or provide consent to policies or contractual terms in order to access services acquired by the government pursuant to this contract (hereinafter “applicable services”) or, in the case of public employees, to perform their job duties; accordingly, in performing the work, contractor shall not require or invite any citizen or public employee to agree to or provide consent to any end user contract, privacy policy, or other terms of use (hereinafter “terms of use”) not previously approved in writing by the procurement officer. Contractor agrees that any terms of use regarding applicable services are void and of no effect.

(b) Unless expressly provided in the solicitation, public contracts are not intended to provide contractors an opportunity to market additional products and services; accordingly, in performing the work, contractor shall not –



for itself or on behalf of any third party – offer citizens or public employees (other than the procurement officer) any additional products or services not required by the contract.

(c) Any reference to contractor in items (a) or (b) also includes any subcontractor at any tier. Contractor is responsible for compliance with these obligations by any person or entity that contractor authorizes to take any action related to the work.

(d) Any violation of this clause is a material breach of contract. The parties acknowledge the difficulties inherent in determining the damage from any breach of these restrictions. Contractor shall pay the state liquidated damages of \$1,000 for each contact with a citizen or end user that violates this restriction.

#### **SERVICE PROVIDER SECURITY REPRESENTATION (FEB 2015)**

The following obligations are subordinate to any other contract clause to the extent the other clause specifically provides for enhanced safeguarding of government information, applicable information systems, or applicable organizations. Offeror (i) warrants that the work will be performed, and any applicable information system (as defined in the clause titled "Information Security - Definitions") will be established and maintained in substantial conformity with the information provided in Offeror's Response to SPSAQ; (ii) agrees to provide the Using Governmental Unit with prompt notice of any material variation in operations from that reflected in the Response to SPSAQ; and (iii) agrees to comply with all other obligations involving either information security or information use and disclosure imposed by the contract, notwithstanding any inconsistent statement in Offeror's Response to SPSAQ. To the extent Offeror's Response to SPSAQ does not conform to any other contractual requirements, the Using Agency's lack of objection does not constitute a waiver

#### **SHIPPING / RISK OF LOSS (JAN 2006)**

F.O.B. Destination. Destination is the shipping dock of the Using Governmental Units' designated receiving site, or other location, as specified herein. (See Delivery clause)

#### **SUBSTITUTIONS PROHIBITED - END PRODUCT PREFERENCES (SEP 2009)**

If you receive the award as a result of the South Carolina end product or United States end product preference, you may not substitute a nonqualifying end product for a qualified end product. If you violate this provision, the State may terminate your contract for cause and you may be debarred. In addition, you shall pay to the State an amount equal to twice the difference between the price paid by the State and your evaluated price for the item for which you delivered a substitute.

#### **STORAGE OF MATERIALS (JAN 2006)**

Absent approval of the using governmental unit, Contractor shall not store items on the premises of the using governmental unit prior to the time set for installation.

#### **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.

#### **WARRANTY – ONE YEAR (JAN 2006)**

Contractor warrants all items acquired shall conform to all contractor's representations, the requirements of this contract, and all published documentation.

#### **WARRANTY – STANDARD (JAN 2006)**

Contractor must provide the manufacturer's standard written warranty upon delivery of product. Contractor warrants that manufacturer will honor the standard written warranty provided.



**VIII. BIDDING SCHEDULE / PRICE-BUSINESS PROPOSAL**

**BIDDING SCHEDULE (NOV 2007)**

**LOT 1 (ITEMS 1-8)**

Item	Description	Total Cost	RVP	EPP	RCP	RSP
1	Equipment and Material <i>(all cost associated with include all shipping charges )</i>	\$				
2	Shop Drawings and Submittals	\$				
3	In Shop Fabrication Labor	\$				
4	On Site Installation Labor	\$				
5	Software Development	\$				
6	Final Testing and Systems Performance Verification	\$				
7	Training and Closeout Documentation	\$				
8	Project Management and Coordination	\$				
<b>Total for Items 1-8</b>		\$				

**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 percentage of the work to be performed in the procurement.

For Informational Purposes Only, this information will not be used to determine low bidder.

Hourly Rates for Additional Work	Per Hour Rates
Project Engineer/Designer	\$
Project Manager	\$
Technician	\$
Programmer	\$
Trainer	\$

## **IX. ATTACHMENTS TO SOLICITATION**

### ATTACHMENTS LIST

The following documents are attached to this solicitation:

IMPORTANT TAX NOTICE - NONRESIDENTS ONLY

OFFEROR'S CHECKLIST

CONTRACT ADDENDUM FOR EXTERNAL DATA & SYSTEMS SERVICE PROVIDERS

SERVICE PROVIDER SECURITY ASSESSMENT QUESTIONNAIRE

ATTACHMENT A – SECTION A- DESIGN AND PERFORMANCE REQUIREMENTS

APPENDIX A – DRAWINGS

APPENDIX B – SUMMARY OF AUDIOVISUAL SYSTEMS SUBMITTAL

APPENDIX C – CONTRACTOR QUALIFICATIONS REQUIREMENTS

APPENDIX D – SUBSTITUTION REQUEST FORM

APPENDIX E – PROGRESS REPORT FORM

APPENDIX F – SYSTEMS PERFORMANCE VERIFICATION REQUEST FORM

APPENDIX G – BIDDING EQUIPMENT LISTS

**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: <https://dor.sc.gov>

---

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 803-896-1420.

PLEASE SEE THE "NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING" FORM (FORM NUMBER I-312) LOCATED AT: [https://dor.sc.gov/forms-site/Forms/I312\\_05182015.pdf](https://dor.sc.gov/forms-site/Forms/I312_05182015.pdf)

## 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.

**By signing the Cover Page of the Solicitation and including it in the proposal you submit, you are agreeing to adhere to the Contract Addendum For External Data & Systems Service Providers document below if you are awarded contract from the solicitation. Please note that under certain conditions and at the sole discretion of University personnel, select terms of this addendum may be negotiated and/or revised.**

## **CONTRACT ADDENDUM FOR EXTERNAL DATA & SYSTEMS SERVICE PROVIDERS**

This document constitutes an Addendum to the Agreement dated \_\_\_\_\_ between the University of South Carolina (hereinafter "Institution") and \_\_\_\_\_ (hereinafter "Service Provider"). If any of the terms of this Addendum conflict with any of the terms of the Agreement, then the terms of this Addendum shall control.

### **Protection of Covered Data and Information**

Service Provider agrees to abide by limitations binding upon the Institution and related to the transmission, storage, access, and disclosure of Covered Data and Information (CDI); this includes various federal and state legislation, regulations, policies, and industry practices.

**Definition: Covered Data and Information (CDI)** includes Personally Identifiable Information (PII) concerning university Constituents, as well as University Data, as defined in [UNIV 1.51](#), and may include paper records, electronic images, data and other information records supplied by Institution, as well as paper records, electronic images, data and other information records the Institution's Constituents provide directly to the Service Provider. Data classified by university Data Stewards as Restricted or Confidential is considered CDI unless specifically exempted by this Addendum. A list of potentially applicable items is located in Enterprise Data Standard 1.04 (Data Classification Level and Potentially Applicable Data Items; see <http://tinyurl.com/h43ojam>).

**Definition: Constituents** are persons and entities that have a relationship to any organizational unit of the university system, including but not limited to: students (prospective students, applicants for admission, enrolled students, campus residents, former students, and alumni), employees (faculty, staff, administrators, student employees, prospective employees, candidates for employment, former employees and retirees), and other affiliates (including but not limited to board members, consultants, contractors, donors, invited guests, recipients of goods and services, research subjects, and volunteers).

**Acknowledgment of Access to CDI:** Service Provider acknowledges that the Agreement allows the Service Provider and Institution to mutually transmit, store, and access CDI.

**Prohibition on Unauthorized Use or Disclosure of CDI:** Service Provider agrees to hold CDI in strict confidence. Service Provider shall not use or disclose CDI received from or on behalf of Institution (or its Constituents) except as permitted or required by the Agreement, as required by law, or as otherwise authorized in writing by Institution. Service Provider agrees not to access or use CDI for any purpose other than the purpose for which the disclosure was made.

**Return or Destruction of CDI:** Upon termination, cancellation, expiration or other conclusion of the Agreement, Service Provider shall return all CDI to Institution or, if return is not feasible, destroy any and all institutional CDI. If the Service Provider destroys the information, the Service Provider shall provide Institution with a certificate confirming the date of destruction of the data.

**Remedies:** If Institution reasonably determines in good faith that Service Provider has materially breached any of its obligations under the Agreement, then Institution, in its sole discretion, shall have the right to (1) require Service Provider to submit to a plan of monitoring and reporting, (2) provide Service Provider with a fifteen (15) day period to cure the breach, or (3) terminate this Agreement immediately if cure is not possible. Before exercising any of these options, Institution shall provide written notice to Service Provider describing the violation and the action it intends to take.

**Maintenance of the Security of Electronic Information:** Service Provider shall develop, implement, maintain and use appropriate administrative, technical and physical security measures to preserve the confidentiality, integrity and availability of all transmitted and stored CDI received from, or on behalf of Institution or its Constituents. Service Provider shall impose these measures on all subcontractors used by Service Provider.

**Reporting Unauthorized Disclosures or Misuse of Covered Data and Information:** Service Provider shall, within one (1) day of discovery, report to Institution any use or disclosure of CDI not authorized by the Agreement or in writing by Institution. Service Provider's report shall identify: (1) the nature of the unauthorized use or disclosure, (2) the CDI used or disclosed, (3) the identity of the individual(s) or entity that received the unauthorized disclosure, (4) the action(s) that Service Provider has taken or shall take to mitigate any potentially negative effects of the unauthorized use or disclosure, and (5) the corrective action(s) Service Provider has taken or shall take to prevent future similar unauthorized uses or disclosures. Service Provider shall provide any additional information in connection with the unauthorized disclosure reasonably requested by Institution.

**Indemnification:** Service Provider shall indemnify, save and hold harmless Institution from any loss, liability, damage, claims, costs or judgments the Institution incurs, including Institution's costs and attorney fees, which arise from Service Provider's failure to meet any of its obligations under the Agreement, including but not limited to this Addendum.

## SERVICE PROVIDER SECURITY ASSESSMENT QUESTIONNAIRE

Instructions: (1) Attach additional pages or documents as appropriate and make sure answers cross reference to the questions below. (2) As used in this Questionnaire, the phrase "government information" shall have the meaning defined in the clause titled "Information Security." (3) This Questionnaire must be read in conjunction with both of the following two clauses (a) Service Provider Security Assessment Questionnaire – Required, and (b) Service Provider Security Representation.

1. Describe your policies and procedures that ensure access to government information is limited to only those of your employees and contractors who require access to perform your proposed services.
2. Describe your disaster recovery and business continuity plans.
3. What safeguards and practices do you have in place to vet your employees and contractors who will have access to government information?
4. Describe and explain your security policies and procedures as they relate to your use of your contractors and next-tier sub -contractors.
5. List any reports or certifications that you have from properly accredited third-parties that demonstrate that adequate security controls and assurance requirements are in place to adequately provide for the confidentiality, integrity, and availability of the information systems used to process, store, transmit, and access all government information. (For example, an ISO/IEC 27001 compliance certificate, an AICPA SOC 2 (Type 2) report, or perhaps an AICPA SOC 3 report (i.e., a SysTrust or WebTrust seal)). For each certification, describe the scope of the assessment performed. Will these reports / certifications remain in place for the duration of the contract? Will you provide the state with most recent and future versions of the applicable compliance certificate / audit report?
6. Describe the policies, procedures and practices you have in place to provide for the physical security of your data centers and other sites where government information will be hosted, accessed or maintained.
7. Will government information be encrypted at rest? Will government information be encrypted when transmitted? Will government information be encrypted during data backups, and on backup media? Please elaborate.
8. Describe safeguards that are in place to prevent unauthorized use, reuse, distribution, transmission, manipulation, copying, modification, access or disclosure of government information.
9. What controls are in place to detect security breaches? What system and network activity do you log? How long do you maintain these audit logs?
10. How will government information be managed after contract termination? Will government information provided to the Contractor be deleted or destroyed? When will this occur?
11. Describe your incident response policies and practices.
12. Identify any third party which will host or have access to government information.

## SECTION A – DESIGN AND PERFORMANCE REQUIREMENTS FOR WILLIAM BRICE SCHOOL OF NURSING ROOM 409 AUDIOVISUAL SYSTEM

### 1.1 DEFINITION OF TERMS

A. Within this section of the specification, the following definitions shall apply:

1. The term “Owner” is used to indicate University of South Carolina.
2. The term “Architect” is used to indicate Compass 5 Partners, LLC.
3. The term “Consultant” is used to indicate: The Sextant Group, Inc., 2296 Henderson Mill Road NE, Suite 116, Atlanta, GA 30345.
  - a. Consultant Project Number: P002987.01
4. The term “Bidder” is used to indicate that entity generating the bid response.
5. The term “Contractor” is used to indicate the successful Bidder to whom the Owner has awarded the contract.
6. The term “Furnish” is used to indicate the responsibility to procure and ship or deliver the item to the job site, freight prepaid, for receipt, staging and installation by others.
7. The term “Install” or “Installation” is used to indicate the responsibility of receiving the item at the job site, assuring adequate storage, unpacking or uncrating the item, physically securing the item, configuring and testing the item, or otherwise making ready the item for its intended use by following the instructions and approved methods of the manufacturer and any additional requirements described herein.
8. The term “Provide” is used to indicate the responsibility to both “Furnish” and “Install.”
9. The term “Provided by Others” shall refer to material and work, which is related to this contract, but has been provided by parties other than the AV Contractor. An example might be in reference to a projection screen installed during building construction but requiring interface to the AV control system.
10. The terms “NIC” and “Not In Contract” are equivalent to “Provided by Others.”
11. The term “OFCI” (Owner Furnished Contractor Installed) shall refer to equipment that will be furnished by the Owner for installation by the Contractor. The Contractor shall be responsible for coordinating with the Owner in regards to the specific requirements of the equipment as applicable to meet the functional requirements of the systems as specified. The Contractor shall be responsible for installing and integrating this equipment as required to produce a fully-functioning system. This may include the installation and configuration of software, PCI cards or other components within or attached to OFCI computers that are required by the AV systems.
12. The term “Contractor Selected” refers to ancillary items where no specific manufacturer and/or model number has been listed as the basis of design in the Bidding Equipment List. The Contractor shall select a product that meets the performance and functional requirements of the system, and submit the product as part of the line item pricing, Shop Drawings and Bill of Materials submittal process as defined herein.
13. The term “Installation Materials” shall reference installed cable, loose cable, terminations, signal extenders, cable management, voice/data/video patch cords, adapters, I/O panels, cable dressing, lacing bars, copper bus bars, labels, rack shelves, rack mounts, power strips/distribution and other materials as needed to install the systems defined herein.
14. The term “Substantial Completion” is used to indicate the stage in the progress of the work where the systems are determined to be sufficiently complete in accordance with the Specification so that the Owner can utilize the systems for their intended use.
15. The term “Final Acceptance” is used to indicate the point in which all contract requirements have been met by the Contractor after Substantial Completion has been achieved. This

DESIGN AND PERFORMANCE REQUIREMENTS

Section A - 3

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

©2018 The Sextant Group, Inc.



includes, but is not limited to, the correction and acceptance of any remaining punch-list items, approval and delivery of all Final Documents, and user training as specified.

16. The term “shall” is mandatory; the term “will” is informative; and the term “should” is advisory.
- B. The Contractor shall provide complete, turnkey audiovisual systems performing all of the services and functions as described herein, together with all other apparatus, cable, materials, labor, tools, transportation, and any other resources necessary to provide a complete system.
- C. The Contractor shall supply and install any incidental equipment needed in order to result in a complete and operable system without claim for additional payment, even if such equipment is not listed in this Specification.
- D. Specifically, the work shall include, but is not limited to:
  1. Coordination
    - a. Communicating and coordinating directly Consultant and Owner complying with all requirements as defined under this Scope of Work and elsewhere, to fulfill all requirements of this specification.
    - b. Scheduling installation operations in sequence required to obtain best completion results.
    - c. Coordinating installation of different components to assure maximum accessibility for required maintenance, service, and repair.
    - d. Verifying required cable lengths for all bulk cable or manufactured cable assemblies prior to ordering as outlined in ‘Installation Practices’.
  2. Documentation
    - a. Generating and submitting Shop Drawings as required for approvals and As-Built drawings as specified herein.
    - b. Generating and Submitting “Progress Reports” as defined herein.
    - c. Documenting the completed installed systems as defined herein.
  3. Design Verification and Acceptance
    - a. Verifying the accuracy of the system designs documented in the Specification and acceptance of responsibility. Any issues, discrepancies substitutions, or exceptions to the Specification by the Contractor shall be communicated to the Consultant and Owner prior to the purchase of any equipment or materials by way of the Shop Drawings Submittal process. Upon approval of the Contractor’s Shop Drawing Submittal by the Consultant and Owner, or if the Contractor fails to submit Shop Drawings, the Contractor shall assume all responsibility for supplying such materials and taking such actions as to satisfy the full intentions of the Specification without claim for additional compensation. This shall include providing any incidental equipment, Installation Materials and labor needed to result in a complete and operable system, even if such equipment, materials or labor are not listed in this Specification. Exceptions include Owner-requested changes, unexpected field issues due to work by other trades, or schedule changes initiated by others.
  4. Cabling, Equipment, and Installation
    - a. Providing all cable in conduits for the specified systems. Place pull string in all conduits after cable installation is complete to allow for future cable installation.
    - b. Providing station cables for connection of IP-enabled audiovisual equipment to associated data network outlets, including but not limited to presenter’s computers, production computers, laptop connections, control system processors, codecs, and projectors. This applies to all equipment installed by the Contractor, including Owner-Furnished (OFCL) items. Coordinate station cable requirements with the greater building-wide structured cabling system.
    - c. Coordinating and providing cable labels as stipulated by the Owner and/or specified

herein.

- d. Furnishing and/or installing all equipment as specified.
  - e. Installing Owner furnished equipment as specified.
  - f. Providing speakers as complete assemblies with back boxes, grilles, tile bridges, wall mounts, hanging hardware and other installation hardware as required.
  - g. Coordinating with the Architect on final color selection, and/or the painting of any exposed loudspeakers and any/all exposed system components to match the room's aesthetics and finishes.
  - h. Coordinating with local entities as necessary (manufacturer, Owner, SBE, FCC, etc.) to determine final channel selection for all wireless devices and resolve conflicts where they may occur.
  - i. Providing to the Owner, upon completion, all accessories and ancillary items included with the manufacturer's equipment but not used for the physical installation of the device. This shall include all user manuals, remote controls, batteries, tools, installation hardware, carrying cases, protective covers, loose cables, etc. Batteries shall be provided for all battery-operated devices, even if not included by the manufacturer.
  - j. Furnishing all lifts, ladders, scaffolding or other resources as needed for proper safe installation. Coordinating with other trades as needed.
  - k. Interconnecting all components, both internal and external to rack cabinets.
  - l. Ensuring that all cabling, equipment, and terminations are installed in accordance with accepted industry standards, approved Shop Drawings, manufacturer's recommendations and as stipulated herein.
  - m. Providing cable management hardware as required including; that required internal to rack cabinets; that required between pieces of equipment not housed in rack cabinets; and that required to extend cabling from rack cabinets and equipment to the greater facility cabling infrastructure.
  - n. Providing custom cover plates, wall plates, I/O connection plates, floor box insert plates as required. Coordinate with the Architect on the final selection of finishes.
  - o. Ensuring that all equipment, except for portable equipment, is firmly fastened or attached in place. A safety factor of at least four shall be utilized for all brackets, fasteners and attachments. Provide safety retention cables for overhead equipment such as loudspeakers, projectors, etc.
  - p. Ensuring that all equipment mounting styles and locations comply with the 2010 ADA Standards for Accessible Design.
  - q. Providing any/all patching, caulking, fire stopping, and painting required to restore damaged finishes during installation.
5. Coordination with Owner's Network
- a. Securing from Owner private IP addresses for use by Ethernet equipped audiovisual devices. No Ethernet equipped device shall be connected to Owner's network without the express permission of Owner. This shall include but is not limited to configuration parameters such as DHCP, IP addresses, subnet information, VLAN setup and authorization.
  - b. Coordinating with the Owner regarding Ethernet equipped audiovisual devices as outlined in 'Submittals – Software'.
6. Programming and Software
- a. Providing Control System design submittals and two Control System design revisions as outlined in 'Submittals – Software'.
  - b. Developing and installing all custom control programming code as required and/or as specified herein.
  - c. Providing centralized media control systems including GUI (Graphical User Interface)

## DESIGN AND PERFORMANCE REQUIREMENTS

## Section A - 5

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

©2018 The Sextant Group, Inc.

- d. Developing Control System help-desk and system administrator functionality as defined herein.
  - e. Providing control system interfaces to mechanical systems including motorized screens, as specified.
  - f. Providing low voltage control system interfaces to facility lighting where specified.
  - g. Providing the executable (uncompiled) programming control code as defined herein.
  - h. Developing and installing all custom software for DSP devices as required to optimize system performance.
  - i. Installing, configuring, and testing all manufacturer provided software applications included with the specified equipment.
7. Testing, Training, Acceptance, and Warranty
- a. Ensuring that all individual components function as intended by this Specification.
  - b. Ensuring that the entire audiovisual systems function as intended by this Specification.
  - c. Testing, adjusting, and fine-tuning the completed systems and components.
  - d. Coordinating and participating in a Systems Performance Verification review with the Consultant and Owner.
  - e. Coordinating and conducting an acceptance walk-through and sign-off session with the Consultant and Owner.
  - f. Providing “sign-off” documents for each space and/or space type as defined herein.
  - g. Conducting training in systems operation for the Owner’s designated representative(s).
  - h. Providing a warranty service contract as defined herein.
- E. Work Excluded: Work not included under this contract shall be:
- 1. Providing conduit, power receptacles, junction boxes, cable raceways, electrical back-boxes, and floor boxes.
  - 2. Providing lighting fixtures, lighting dimming systems, lighting controllers, and lighting system low voltage AV interfaces at the dimmer side.
  - 3. Providing millwork except where otherwise specified herein.
  - 4. Providing telecommunications structured cabling systems, including horizontal and backbone cabling and termination, voice and data face plates, associated racks and cabinets, raceway, and cable management.

## 1.2 JOB CONDITIONS

### A. Space Conditions:

- 1. Architectural reference drawings if available and provided to the Contractor may not reflect construction site as-built conditions. It shall be the responsibility of the Contractor to field-verify all site conditions relevant to his/her work.
- 2. The Contractor shall verify dimensions of equipment, equipment arrangements, space availability (including any millwork or cabinetry provided by others) and provide systems that work within the constraints of the space available. The Contractor shall notify the Consultant and Owner of any situation where space constraints are a problem, prior to the submission of shop drawings or the ordering or purchase of equipment. The Contractor shall bear the expense of providing alternate equipment, which will work within the available space, if space availability problems are discovered after shop drawings are submitted and approved.
- 3. Drawings indicate equipment and components. Changes in the location, and offsets of same to accommodate building conditions, and coordination with the work of other trades shall be made prior to initial installation, without additional cost to the Owner.

## DESIGN AND PERFORMANCE REQUIREMENTS

### Section A - 6

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

4. The Contractor shall ensure during installation that access is provided to equipment and components requiring operation, service or maintenance within the life of the system.
5. It shall be the responsibility of the Contractor to identify any condition where the recommended environmental and/or electrical operating parameters for specified equipment/products cannot be assured. Should such condition exist, it shall further be the responsibility of the Contractor to notify the Consultant and Owner of any such condition.

### 1.3 PROJECT OVERVIEW

- A. University of South Carolina is currently desiring the installation of a new audiovisual system for the School of Nursing 409 Renovation within the William Brice Building on the main campus in Columbia, SC.
- B. University of South Carolina is seeking a turn-key job to be provided by one vendor to supply equipment, labor, installation materials, programming, testing, training, and follow-up support for the audiovisual systems as described in this Specification.
- C. All junction boxes, floor boxes, conduit, power receptacles and network outlets (for connection to Owner's network) will be provided by others. It is not anticipated that any additional boxes or power locations will be required to complete the installation.

### 1.4 SYSTEMS DESCRIPTIONS – CLASSROOM 409

- A. This classroom provides a space for instructor lead presentations supported by audiovisual presentation/capture technologies, active learning technologies, and movable furniture.
- B. The audiovisual system will primarily function in two modes, "Presentation Mode" and "Small Group Mode".
- C. When in Presentation Mode the four flat panel displays along the east wall shall be used as the instructor's displays with all four flat panels showing a single source.
  1. The instructor may route their content to all flat panel displays with a 'send to all' button at the touch panel
  2. All audio at the flat panel displays shall be muted
- D. When in Small Group Mode, the local wireless presentation gateway dedicated to each display shall be routed to each flat panel display. The instructor may route his/her content to all displays collectively for presentations and reroute back to Small Group Mode once complete. Student display audio shall be muted by default, but un-mutable via the control system.
  1. In Small Group Mode the flat panel displays shall be seen as a singular destination for the instructor's content
- E. The PTZ cameras shall have at minimum (6) presets for two positions at the front of the room and at the center floor box location.
- F. The USB Bridge will default to the instructor camera; however, the user will be able to change which source is routed to it via a camera control page. When on the camera control page, the instructor's monitor will show a preview of the camera being adjusted. Contractor shall coordinate with the Owner to ensure the Bridge works correctly with the OFCI computer.
- G. Lecterns
  1. Primary Lectern is by Marshall Furniture and has custom part number that meets University of South Carolina standards and has an assigned part number from Marshall Furniture.

### DESIGN AND PERFORMANCE REQUIREMENTS

### Section A - 7

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

2. There is a secondary lectern that can be used when the room is set up with presenter in the center if desired
  3. The primary lectern cable whip shall be neatly wrapped (along with power) in black sheathing. The lectern will be equipped with a built-in equipment rack. Audiovisual Contractor shall install the Owner furnished computer and all peripherals. Coordinate with the Consultant and Architect with exact placement prior to installation.
  4. Lecterns can be connected in two locations from front of room for standard lecture configuration or in center of room for a lab style lecture.
- H. Audiovisual Contractor shall connect to Owner Furnished lighting and shade controllers via the networked building management system. The audiovisual control system will recall lighting and shade presets.
- I. Unless otherwise noted all audiovisual equipment will be housed in an equipment rack in the adjacent Telecommunications room 407.
- J. There is a speech reinforcement system. This system will also support program audio from computers and other auxiliary devices.
- K. ADA required hearing assistance will be installed.

## 1.5 SUBMITTALS

### A. General:

1. The Consultant shall review the Submittals and Shop Drawings listed below. Submittal and Shop Drawing approval shall be based on conformance to the Specification and adherence to the design intent of the Specification. The Consultant's approval of the Contractor's Submittal shall not constitute a certification of accuracy or completeness in regards to equipment, quantities, installation techniques and details, software programming, equipment interoperability, safety factors, scheduling, coordination with other trades, or any other aspects of the work which are the responsibility of the Contractor. The Consultant shall perform no more than two reviews per submittal listed below. The Contractor shall be responsible for providing any incidental equipment, Installation Materials and labor needed in order to result in complete and operable systems, even if such equipment, materials or labor are not listed in this Specification.
2. The Contractor shall maintain a Master Set of this entire Specification, including all drawings and addenda, at the site at all times during the installation. Any deviations from the Specification made during the installation shall be marked on this Master Set. The Master Set along with all relevant support documentation shall be provided as part of the As Built submittal in the format outlined under Final Documentation.

### B. Submittal Format:

1. All documents, configuration files and drawings shall be submitted in the following format:
  - a. Electronically in PDF format.
  - b. Executable configuration file (where applicable).
  - c. Other formats may be acceptable upon prior approval by the Consultant and Owner.
  - d. All .PDF files shall be submitted at the documents' native scale. For example, a PDF created from a drawing whose native format was standard 'E' size (42"x30") shall be created at 42"x30" (full size) to ensure that there is no loss of resolution should the file be viewed or printed at a later date by the Consultant and Owner.

**C. Schedule:**

1. The Contractor shall obtain from the Owner a project master timeline schedule showing projected dates when the relevant areas will be available to the Contractor for the on-site installation.
2. Within 15 days of notification of contract award, the Contractor shall provide a schedule of major project milestones to the Owner and Consultant. The schedule shall show the following milestones, but may include others as required for overall site-work coordination:
  - a. Shop Drawings and Submittals
  - b. Order and receipt of materials
  - c. Delivery of materials to the work site for installation by Others
  - d. Delivery of major system components to the work site
  - e. Receipt of Owner furnished equipment for installation by the Contractor
  - f. Development and submittal of control system GUI and DSP submittals
  - g. 50% completion of work by area
  - h. 95% completion of work by area
  - i. Installation of control system code
  - j. 100% completion of work by area
  - k. Testing and debugging on-site
  - l. Final punch list
  - m. Submittal of Final Documentation
  - n. Training
3. If the Contractor feels that he will have any problems with meeting the scheduled project milestone deadlines, he must inform the Owner and Consultant at the earliest possible opportunity.

**D. Progress Reports**

1. Contractor shall submit a brief Progress Report via e-mail to the Consultant. The Progress Reports should be concise, utilizing bullet points or other efficient format.
2. The reports shall be submitted by noon on Fridays to [mcook@thesextantgroup.com](mailto:mcook@thesextantgroup.com) at the following intervals:
  - a. After contract award, while working off-site: every two weeks
  - b. While working on-site: every week.
3. Progress Reports shall list the following information in three sections:
  - a. Progress: List the tasks accomplished since the previous report. This is to include both completed tasks and work-in-progress.
  - b. Work Planned: List the tasks scheduled for the time period extending until the next report. This section should also include both completed tasks and work-in-progress.
  - c. Issues. List any factors that are delaying progress or have the potential to delay progress that involve the Owner, Architect and/or Consultant.
    - 1). Provide a proposed solution for each issue listed. Proposed solutions will be reviewed and approved by the Owner, Architect and/or Consultant, or alternate solutions will be recommended.
    - 2). For equipment related issues, include a manufacturer's service ticket number, service log number, or similar means of documenting communications between the Contractor and manufacturer.

**E. Shop Drawings:**

1. The Contractor must receive written approval from the Owner or an authorized representative of the Owner, in writing, prior to purchasing, fabricating or installing any equipment or materials. Approval to proceed will be given based upon Shop Drawings.
2. The Shop Drawings shall indicate complete details of work to be performed.
3. The Contractor shall provide one electronic copy (two copies, if printed) of the Shop Drawings each to the Consultant for review and approval.
  - a. Drawings shall include a title block naming the Project, Consultant, and Contractor, shall include a drawing title, drawing number, revision number if applicable and date.
  - b. Unless otherwise agreed to in writing, Contractor shall meet with the Owner and Consultant and/or Owner's designated representative to review the Shop Drawing submittal. The Contractor shall be prepared to review the functional capabilities and characteristics of the systems for compliance with Owner requirements.
4. The Shop Drawings listed below are required of the Contractor. Submit all Shop Drawings complete as a single submission. Isolated items will not be accepted, except with prior approval.
  - a. System Signal Flow – Complete functional system signal flow drawings of all systems described herein and meeting the functions indicated in the Specification. System Signal Flow drawings to illustrate and identify each major component indicating signal flow; signal type and equipment interconnectivity; all used and unused input/output connections for all devices; connector types; specific manufacturer and model number labels for each component; physical location callout indicating the components physical location (i.e. equipment rack #, lectern, wall mounted, etc.); cable fan-outs; wire/cable tags; 70 volt loudspeaker tap settings; amplifier/loudspeaker zone assignments; and other details as needed to accurately document the signal interconnectivity of the systems.
  - b. Cabling Schedule – Document complete wire run information, including the cable type, cable marker identifier, and origination and destination location and connector types for each cable. Wire run information shall be conveyed:
    - 1). Within the System Signal Flow drawings, and/or
    - 2). A separate list containing all wire run information
  - c. Examples representative of the Contractor's final cable marking technique for each cable type.
  - d. Structural Anchorage – If required by the Authority Having Jurisdiction, provide structural calculations, drawings and details for the anchorage of equipment racks, loudspeaker rigging hardware, and all other mounts or hardware that attach to structure. The design shall be reviewed and approved by a Structural Engineer registered in the state in which the installation work is performed.
  - e. Equipment Rack Layouts – Fully detailed rack drawings indicating equipment orientation within the equipment rack.
5. Approval: The Contractor shall receive written response indicating approval to proceed, or changes required to the Shop Drawings submittal, within 10 working days of receipt of the submittal by the Consultant.
6. Modifications: The Contractor shall be responsible for updating the Shop Drawing package throughout the course of the project to document any Owner or Consultant-requested changes, approved product changes, changes due to field conditions, or any other changes to the approved Shop Drawing package. Drawing modifications may be reviewed by the Owner and Consultant as-required, and the Contractor shall make current Shop Drawings available to the Owner and/or Consultant within seven calendar days of request.
7. Product Cut Sheets: Unless otherwise agreed to in writing, the Contractor shall prepare a package of product cut sheets for review with the Owner and Consultant at the time of the

- Shop Drawings review meeting. The package shall include manufacturer's cut sheets for all user interfaces, all exposed items not mounted in equipment racks, and all items requiring color or finish selection. The Product Cut Sheets package is not a formal submittal to be reviewed by the Consultant, and is not a means for proposing product substitutions. Requested substitutions shall be submitted via a 'Substitution Request Form' (Appendix D) including drawings, performance and test data, and other information necessary to demonstrate that the substitution will meet all intentions of the Specification.
- F. Bill of Materials: The Contractor shall submit a Bill of Materials concurrent with the Shop Drawing submittal. The Bill of Materials shall be organized by room or system type and submitted electronically in Microsoft Excel .xls format, unless an alternate format is approved in writing by the Consultant, Architect, or Owner.
- G. Cabling: The Contractor shall submit specifications for each cable type to be used for the project. The Contractor shall receive written approval from the Consultant or an authorized representative of the Owner, in writing, prior to purchasing or installing any cabling.
- H. Network Coordination
1. The Contractor shall provide a private wired control network that shall function independently of the Owner's network. The Contractor shall coordinate with the Owner and verify which system components if any shall be connected to the Owner's network.
  2. The Contractor shall work with the Owner's IT department to identify all PoE, VLAN, firewall and other networking requirements to provide a fully functioning AV system. The Contractor shall generate a schedule of all AV components that will be connected to the building LAN and submit it to the Owner's IT department for implementation.
  3. The Contractor shall, as required, obtain from the Owner's IT department blocks of static IP addresses sufficient for current system implementation as well as future system growth.
  4. The IP Addressing schedule shall list, at minimum, for each connected device:
    - a. Product make and model
    - b. LAN port connection location
    - c. VLAN Assignment – If applicable
    - d. Assigned Static IP address
    - e. Product MAC address
  5. The IP Addressing schedule shall be submitted electronically in Microsoft Excel .xls format, compatible with Windows 7 or newer operating systems, unless an alternate format is approved in writing by the Owner.
  6. Approval: The Contractor shall receive written response indicating approval to proceed, or changes required to the IP Addressing Schedule, within 10 working days of receipt of the submittal by the Owner.
- I. Software: The Contractor shall secure from the Consultant, Owner or Owner's Representative, in writing, approval for all customized software applications prior to installation, including but not limited to:
1. Audio Digital Signal Processing (DSP):
    - a. The Contractor's Audio DSP submittal shall communicate the internal signal flow, preliminary setup and the configuration of the Audio DSP processors that is required to meet the AV systems functional and performance requirements. Final level settings and internal preset configurations shall be the Contractor's responsibility during system setup and commissioning.
    - b. Format: The preferred Audio DSP Systems submittal is the manufacturer's DSP software configuration files. If requested, the submittal may be provided in the form of signal flow drawings.
    - c. Audio DSP Software Configuration File Submittal Format:
      - 1). Provide the manufacturer's software configuration files, custom designed for each



- unique system type, compatible with Windows 7 or newer operating systems.
- 2). DSP configuration files shall include custom labeling of all internal DSP device inputs and outputs provided with labeling capability. Labeling of the external hardware interface points shall match the externally connected devices as shown in the signal flow drawings.
  - 3). The Contractor shall provide one copy of the electronic files to the Consultant for review.
- d. Audio DSP Signal Flow Drawing Submittal Format:
- 1). Provide block diagram signal flow drawings, custom designed for each unique system type and include at minimum the following information:
    - a). The audio DSP manufacturer make and model.
    - b). The system names and/or locations (room names) that will be served by the audio DSP device.
    - c). The names of all internal DSP components.
    - d). The names of all internal inputs and outputs.
    - e). The names of all external input and output connections.
    - f). Show interconnectivity between the internal components and I/O's (indicating DSP internal signal flow).
  - 2). DSP signal flow submittals may be sized to match the AV signal flow drawings, in the form of JPEG image files (maximum 1920x1080 pixels) or PDF files.
  - 3). The Contractor shall provide one copy each of the submittal to the Consultant for review.
- e. The Contractor shall receive written response indicating approval to proceed, or changes required to the DSP submittal, within 10 working days of receipt of the submittal by the Consultant.
2. Control System Preliminary Control Surfaces/GUI Submittal
- a. The intent of the Control System Preliminary Control Surfaces/GUI Submittal is to create a base level collaboration process whereby the Programmer can solicit direction from the Owner and Consultant towards a mutually agreeable design. Unless otherwise agreed to in writing the Contractor shall meet with the Owner, Consultant, and Owner's designated representative to review the Preliminary Control Surfaces/GUI Submittal. The Contractor shall be prepared to review the functional capabilities as well as the aesthetic characteristics of the control surfaces for compliance with Owner preferences and standards.
  - b. Based upon Owner control surface or GUI standards (where they exist) and/or as implied by control system functionality described in the Audiovisual Systems Specification System Descriptions, equipment lists, and system topology illustrated on the signal flow drawings, the Programmer will generate preliminary control surface layouts for all pushbutton panels, touch sensitive panels, PC based controllers or other control surfaces. The Programmer should endeavor to make the preliminary layouts as complete as possible. The layouts should illustrate all pushbuttons, labels, bar graphs, timers, video windows, etc. for each control panel and each system page. The Programmer should include suggestions for color schemes and graphics where applicable.
  - c. Where Owner control surface or GUI standards are lacking, it is recommended that the graphical user interface designer references the AVIXA/InfoComm International White Paper - Modern Approaches to Control Systems Design prior to commencing the design of the control touch panel layouts.
  - d. Control Surfaces Submittal Format
    - 1). The preferred touch panel control surface submittal is in the form of each GUI design converted to the manufacturer's self-executable touch panel demo

program. Demo files shall be compatible with Windows 7 or newer operating systems. The Contractor shall provide one copy of the electronic files to the Consultant and Owner for review.

- 2). Alternatively, control surfaces design may be provided in the form of JPEG image files (maximum 1920x1080 pixels), or as PDF files. The submittal must include information clearly indicating page flips and other features that may not be evident in static images. This may be accomplished by including a logic flow diagram to supplement the control surface images. The Contractor shall provide one copy each of the submittal to the Consultant and Owner for review.
- e. The Contractor shall receive written response indicating approval to proceed, or changes required to the control surfaces layouts, within 10 working days of receipt of the submittal by the Consultant and Owner.
3. Control System Revised Control Surfaces/GUI Submittal
  - a. If changes are required to the preliminary control surfaces submittal, the Contractor shall generate a revised preliminary control surfaces submittal to include the additions, changes or revisions generated by the preliminary submittal review. The form and quantity of the submittal shall be identical to the preliminary submittal unless otherwise directed. If the revised control surfaces submittal reflects those additions, changes or revisions called for in the preliminary submittal review, the Contractor shall receive written approval to proceed within 10 working days of receipt of the submittal by the Consultant and Owner.
4. Post-Integration Control Surfaces Adjustments
  - a. If so requested by the Consultant, Owner or Owner's representative, and within 90 days of Substantial Completion, the Contractor shall be prepared to make one visit to the site to make final minor adjustments to the control system code or programming without additional compensation. This could include, but may not be limited to, renaming or changing the size or location of buttons, page flip calls, or adjustments to code to provide a fully functioning system. If engraved control system panels require modification at a cost to the Owner, such cost information must be submitted to the Owner for approval prior to any work being performed.
  - b. The Contractor shall be responsible for ensuring that any changes to the control system or control surfaces that are made post integration are appended to the Final System Documentation.

#### J. Cable Testing

1. The Contractor shall secure from the Consultant, in writing, approval for all cable test reports prior to Final Testing and System Performance Verification. Test reports shall include testing of all systems cabling and shall include:
  - a. Loudspeaker line testing:
    - 1). Low impedance loudspeaker lines:
      - a). Impedance at 1000Hz.
      - b). Polarity of installed loudspeakers.
    - 2). 70-volt loudspeaker lines:
      - a). Watts load at 1000Hz.
      - b). Polarity of installed loudspeakers.
  - b. Analog audio microphone and line level cable testing:
    - 1). Continuity of each conductor.
    - 2). Signal loss.
    - 3). Signal polarity.
    - 4). Shielding.

- c. UTP, STP, F/UTP and S/FTP cable testing:
  - 1). Category 5, 5e and 5e+ cables:
    - a). ANSI/TIA-568-C.2 Category 5e Permalink test.
    - b). ANSI/TIA-568-C.2 Category 5e Channel test.
  - 2). Category 6 and 6+cables:
    - a). ANSI/TIA-568-C.2 Category 6 Permalink test.
    - b). ANSI/TIA-568-C.2 Category 6 Channel test.
  - 3). Category 6a and 7a cables:
    - a). ANSI/TIA-568-C.2 Category 6a Permalink test.
    - b). ANSI/TIA-568-C.2 Category 6a Channel test.
  - 4). Shield test (required for shielded cables only).
  - 5). Nominal Velocity of Propagation test.
  - 6). Testing to be performed using a Fluke DSX-5000, or equal.
- d. 2K HDMI and Digital Signal cable testing:
  - 1). Wire test function.
  - 2). Testing to be performed using a Quantum Data 780a, or equal.
- e. 4K HDMI and Digital Signal cable testing:
  - 1). Wire test function.
  - 2). Testing to be performed using a Quantum Data 780b, or equal.
- f. Digital video coaxial cable testing:
  - 1). EDH, CRC & Jitter tests
  - 2). Eye pattern measurement

#### K. Preliminary As-Built Drawing Submittal

1. Upon completion of the work, and prior to Final Testing and System Performance Verification, the Contractor shall condense the Master Set along with any Shop Drawings into a single "As Built" drawing set. Any markings or deviations, which cannot be made clear on drawings, shall be accompanied by attached documentation, photos, or written addenda.

#### L. Final Documentation Submittals

1. Within 30 calendar days following Substantial Completion, the Contractor shall prepare and submit a Final Documentation set to the Consultant. The Final Documentation Submittal shall include any and all adjustments or changes identified during the Preliminary As-Built Drawing Submittal review. All documentation shall list the Consultant, Project Name, Consultant, and Contractor. Any documentation appended and reissued during the Warranty period shall also include this information.
2. Format: All documents and drawings shall be submitted in the following format:
  - a. Electronically in PDF format, submitted on indexed and searchable CDROMs.
  - b. Other formats may be acceptable upon prior approval by the Consultant and Owner.
  - c. All .PDF files shall be submitted at the documents' native scale. For example, a PDF created from a drawing whose native format was standard 'E' size (42"x30") shall be created at 42"x30" (full size) to ensure that there is no loss of resolution should the file be viewed or printed at a later date by the Owner.
3. Printed submittals
  - a. If requested, provide (2) printed copies of all documents and drawings. The documentation shall be bound in three ring binders with covers and spines listing the Owner, Project Name, Consultant, and Contractor.
4. Documentation: The Final Documentation Submittal shall include:

#### DESIGN AND PERFORMANCE REQUIREMENTS

#### Section A - 14

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

- a. As-Built Drawings: The as-built drawings must reflect all changes to the system(s) made after the original bid documentation.
  - 1). The size of the as-built drawings shall be identical to the original drawings provided to Contractor.
  - 2). As-Built drawings shall conform to all the requirements listed under “Submittals / Shop Drawings” listed above.
  - 3). Any markings or deviations, which cannot be made clear on drawings, shall be accompanied by attached documentation, photos, or written addenda.
  - 4). The Contractor shall include any additional drawings which are necessary to properly document the as-built systems, but not included in the bid documents, including:
    - a). Rack elevations
    - b). Custom panel details
    - c). Cable pull lists
  - 5). Submission of digital As-Built drawings files, which are generated by the Contractor based on drawing files provided by the Consultant under separate agreement, shall be subject to submission by the Contractor as defined under said agreement.
- b. A schedule of IP and MAC Addresses for all Ethernet enabled AV devices, organized by room name and number.
- c. A complete cable testing schedule.
- d. A listing of each supplied item with manufacturer, model number and serial number, organized by room name and number.
- e. Operator's manuals for each piece of equipment supplied by the Contractor.
- f. Quick Reference Guides
  - 1). The Contractor shall develop system operating instructions for the operations of all contractor-fabricated devices and installed equipment items as part of the work. These operating instructions shall include detailed descriptions of how to operate the system as a whole. Component manuals are not acceptable to meet this requirement unless approved by the Owner.
  - 2). Quick Reference Guides shall be one page (front and back as necessary) heat-laminated cards or tents providing simplified instructions for operation of all major system functions.
  - 3). Content of the quick reference guide shall focus on the controls and must include high quality graphics / photos of the controls themselves with explanations and step by step instructions.
  - 4). Pages shall be appropriately sized for the content required. (Half or other sized pages are appropriate for simple rooms.)
  - 5). Described functions shall include as a minimum:
    - a). Power on/off
    - b). Source selection
    - c). Volume control
    - d). Connection of auxiliary sources
    - e). Other functions as appropriate for the system, such as lighting and shade control.
    - f). Coordinate with the Owner regarding additional content desired. For example, the Owner may wish to include instructions for contacting local support personnel.

g. Software

- 1). Where custom software is developed as part of this project, the system source code, passwords, and any associated related files, referenced files, and development software (and all relevant documentation and license) used to compile, develop, and build, etc. the executable code must be provided. The source code should be well documented in accordance with industry software engineering practices.
  - 2). The software developer shall retain intellectual property rights; the Owner shall have a license for perpetuity for use as it applies solely to this project, including the right to modify/enhance. The software code may not be sold or used, in part or in whole, in any other project or application other than that intended by this specification, in part or in whole, by the Owner or any other party.
  - 3). If a Subcontractor is used to write the software, the Contractor shall include, as part of the Final Documentation submittal, a signed letter on Subcontractor letterhead, granting the Owner ownership, use, and modification rights of the code and documentation as defined herein. The software shall be provided to the Owner on CD-ROM, inserted into a plastic sleeve appropriate for each media type, and included in the binders.
  - 4). The Owner may supply the Contractor or allow the Contractor to use certain proprietary information, including service marks, logos, graphics, software, documents and business information and plans that have been authored or pre-owned by the Owner. All such intellectual property shall remain the exclusive property of the Owner and shall not be used by the Contractor for any purposes other than those associated with delivery of the systems specified herein.
- h. Warranty Statement: A statement on the Contractor's letterhead listing the official start and end dates for the Contractor's warranty on all equipment, materials, and labor used in the project. The start date shall correspond with the established Substantial Completion date, and the end date shall be based on the timeframe of warranty coverage purchased by the Owner as part of the contract.

5. Delivery

- a. If the Final Documentation submittal is determined by the Consultant and Owner to be complete and accurate, the Consultant and Owner will approve the submittal.
- b. If the Final Documentation Submittal is determined by the Consultant and Owner to not be complete and/or inaccurate, the Consultant will return the package to the Contractor with a written listing of the required modifications. Upon completion of all of the required modifications, the Contractor shall resubmit the Final Documentation to the Consultant and Owner for approval. The Final Documentation Submittal, and therefore the project, shall not be considered to be complete until all required documentation modifications have been made and approved by the Consultant and Owner.

## 1.6 FINAL TESTING AND SYSTEMS PERFORMANCE VERIFICATION

### A. Final Tests

#### 1. System Performance Verification Scheduling

- a. Upon approval of the Contractor's test report and receipt of the "Systems Performance Verification Request" form, the Contractor shall assist the Consultant in final system tests. The Contractor shall allow two (2) days to perform the tests at a time that is mutually acceptable to the Contractor and Consultant. The Contractor's representatives assisting in the performance of these tests shall be thoroughly familiar with the details of the system and shall include the field supervisor responsible for installing, testing, programming and commissioning the system.

## 2. System Performance Verification

- a. All control system, DSP and device programming shall be completed and in working order prior to the System Performance Verification.
- b. A physical inventory shall be taken of all equipment on site and justified against the Contractor's Bill of Materials submittal and the original Bidding Equipment Lists.
- c. The Consultant shall require tests completed by the Contractor which demonstrate the operation of all system components and to determine that the systems meet the criteria as outlined in 'Performance Standards'.
- d. The Contractor shall supply test equipment to be used during the System Performance Verification. The test equipment shall be present, in working order and connected prior to the System Performance Verification.
  - 1). Video Test Equipment
    - a). Computer video signal generator(s) capable of outputting all signal types included in the system design. (Extron VTG 400DVI & Marshall Electronics V-SG4K-HDI or equivalent)
      - 1.01 HD-SDI and SD-SDI Generator/Monitor capable of outputting all signal types included in the system design and capable of embedded audio. (Harris HD-STAR or equivalent)
    - b). Digital discs including both program content and test signals. DVD and Blu-Ray discs are both required.
    - c). Adapters and interconnect cabling as necessary to complete testing.
  - 2). Audio Test Equipment
    - a). Analog Audio Signal Generator, Impedance Meter and Line Analyzer: NTiMR-PRO (or equivalent).
    - b). Digital Audio Signal Analyzer: NTi DL1 (or equivalent).
    - c). Hardware-based Acoustic Analyzer: NTi AL1 or NTi XL2 (or equivalent).
    - d). Software-based Acoustic Analyzer: Smaart with reference microphones and all necessary accessories (or equivalent).
    - e). Compact Discs (CD's) including both program content and test signals.
    - f). Media as necessary to test all playback and recording functions of the system. I.E. compact flash card, MP3 Player, USB media.
    - g). Adapters and interconnect cabling as necessary to complete testing.
- e. Contractor shall have tools available on the day of the System Performance Verification for system inspection and adjustments.
- f. Contractor shall coordinate with Owner so that all spaces are unlocked and available for inspection.
- g. Preliminary As-Built documentation shall be available for reference and inspection.

## 3. Punch List Report and Correction

- a. Following the completion of the Systems Performance Verification, the Consultant will issue a punch list report to the Contractor, identifying omissions, adjustments, and corrections to the work necessary to meet the requirements of the Specification.
- b. The Contractor shall correct all punch list items resulting in fully functional systems that meet all requirements of the Specification and can be utilized by the Owner as-intended.

## 1.7 SUBSTANTIAL COMPLETION

- A. The project shall be deemed substantially complete by the Consultant and Owner at the stage in the progress of the work where the systems are sufficiently complete in accordance with the Specification so that the Owner can utilize the systems for their intended use.

## 1.8 TRAINING

- A. The Contractor shall provide a total of eight (8) hours of on-site training for the Owner's staff at a time that is mutually agreeable for the Owner and Contractor.
  1. The Contractor should anticipate four (4) sessions of two hours each.
  2. The Contractor should anticipate that one of these sessions will occur 90 days after the installation is complete as a refresher.
  3. The Owner may choose to have the sessions spread out over a maximum of four (4) different days.
  4. Address in the training the general configuration of the system, basic functionality, correct operation procedures, routine maintenance and upkeep.
  5. If desired by the Owner, a maximum of two (2) sessions shall be video/audio recorded at high quality by the Contractor. The Contractor shall provide the Owner with full copies of the training sessions on DVD, with duplication permissions.

## 1.9 FINAL ACCEPTANCE

- A. Final Acceptance shall be granted by the Consultant and Owner based on the successful completion of the following activities:
  1. All items required to obtain Substantial Completion have been achieved.
  2. Any punch list corrections not required to obtain Substantial Completion have been completed by the Contractor and accepted by the Consultant and Owner.
  3. The Contractor's Final Documentation Submittals have been reviewed by the Consultant and Owner and deemed to be complete.
  4. The Contractor has provided all required training for the Owner as defined herein.
  5. Any remaining items required by the Specification, but not listed above, have been completed by the Contractor.

## 1.10 QUALIFICATIONS

- A. Contractor Qualification Requirements: Bidder shall submit on or before the date of the Pre-Bid Meeting evidence of his/her qualifications to perform the work specified. Contractor qualifications shall be the most current information available but not more than one year old. Submit one copy of documentation to both Owner and Consultant for review and approval. Transmit documentation to be received no later than the scheduled time of Pre-Bid Meeting. All contractor qualifications shall be communicated by way of the enclosed Contractor Qualification Requirements Form (APPENDIX C), and shall include the information listed below.
  1. Corporate Profile
    - a. Location of Corporate Headquarters
    - b. Number of offices and locations
    - c. Location of office assigned to this project
  2. Corporate History
    - a. How Many years in this business?
    - b. Under what former names has your organization operated

## DESIGN AND PERFORMANCE REQUIREMENTS

## Section A - 18

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

- c. Date(s) of incorporation
- d. State of incorporation
- e. Officers names and addresses
3. Litigation Experiences Within the Last 5 Years
  - a. Project Related:
    - 1). Nature of Litigation
    - 2). Plaintiff or Defendant
  - b. Outcome
4. Non-Project Related
  - a. Nature of Litigation
  - b. Plaintiff or Defendant
  - c. Outcome
5. Financial
  - a. Trade and Bank Credit References (List 3)
  - b. Dunn & Bradstreet ranking
  - c. Insurance Limits
6. Staffing
  - a. Number and Type of Full-Time Staff
  - b. Total number of employees
  - c. Number of design staff
  - d. Number of installation staff
  - e. Number of project management staff
  - f. Number of software programming staff
7. Identify key personnel that will be assigned to this project including:
  - a. Project Executive
  - b. Project Manager
  - c. Systems Engineer/Designer
  - d. Lead Installer/Crew Chief/Superintendent/Lead Technician
  - e. Control Systems Programmer
  - f. Audio DSP Programmer
  - g. Commissioning Agent
  - h. Trainer
8. For each Individual listed above provide a resume that includes:
  - a. Office Location
  - b. Percentage of individual's time that will be allocated to this project
  - c. Work History
  - d. Previous Project Experience:
    - 1). The assigned Project Manager shall have a minimum of five (5) years' experience in the fabrication, assembly, and installation of audiovisual systems of similar magnitude and quality to that indicated for this project-
    - 2). The assigned Systems Engineer/Designer shall have a minimum of five (5) years' experience in the fabrication, assembly, and installation of audiovisual systems of similar magnitude and quality to that indicated for this project.
  - e. Length of Employment
  - f. Certifications: CTS, CTS-D, CTS-I, EST-L2, RCDD, PMP, Certified Control System Programmer, Certified DSP Programmer, CompTIA Network+, CCNA, other.

**DESIGN AND PERFORMANCE REQUIREMENTS****Section A - 19**

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.



- g. The project will utilize DigitalMedia products by Crestron Electronics. The Contractor's Systems Engineer/Designer shall hold a current Crestron DMC-E (Digital Media Certified Engineer) certification. The Bidder shall submit the name of the Systems Engineer/Designer, certification expiration date and certification number.
- h. The Contractor's Lead Installer shall hold a current CTS-I (Certified Technology Specialist – Installation) certification from AVIXA/InfoComm International, and/or a current EST-L2 (Electronic Systems Technician) certification from NSCA. The Bidder shall submit the name of the lead installer and certification expiration dates.
- i. The project will utilize DigitalMedia products by Crestron Electronics. The Contractor's Lead Installer shall hold a current Crestron DMC-T (Digital Media Certified Technician) or Crestron DMC-E (Digital Media Certified Engineer) certification. The Bidder shall submit the name of the Lead Installer, certification expiration date and certification number.
- j. The project will utilize control system products by Crestron Electronics. Due to the potential complexity of the control system, a Crestron Certified Programmer(s) with active certification shall be required to author the programming component of this project. The Bidder shall provide documentation listing project team member(s) who will create the control system programming including a listing of years of experience, a statement of manufacturer authorization, certification type, date of certification and the certificate number.
- k. Due to the potential complexity of the Audio DSP system, a manufacturer certified programmer(s), with active certification(s), shall be required to author the programming for the Audio DSP component of this project. The Bidder shall provide documentation listing project team member(s) who will program the Audio DSP including a listing of years of experience, a statement of manufacturer authorization, certification type and date of certification. In addition to the DSP certifications, the bidder shall provide any audio supportive certifications of merit (i.e. Syn-Aud-Con and AVIXA/InfoComm certifications relevant to audio training and/or CompTia and Cisco certifications relevant to network training).

#### B. Resources

1. A manufacturers' line card for products in which the Bidder is an authorized Distributor or Dealer. Include date initially authorized.
2. A list of any manufacturers' specialized technical certifications or designations held by the Bidder.
3. A list of manufacturers for whom the Bidder is an authorized service center.
4. A list of computer software and/or systems owned by the Bidder, which will be used to communicate, measure, draw, and/or document the project.
5. A list of system test equipment owned and used by the Bidder, including manufacturer, model number and, where applicable, latest software revision.

#### C. References

1. Include three project references, including:
  2. Contact name
  3. Institution name
  4. Phone number
  5. E-mail address
6. Include three projects of:
  7. Similar scope and scale.
  8. Similar technology applications
  9. Provide Project cost for each
10. List any past projects where Bidder has worked with the Owner, Consultant, Architects, or Construction Manager who are part of this project team.

#### DESIGN AND PERFORMANCE REQUIREMENTS

#### Section A - 20

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

D. The Bidder shall provide line item pricing for all equipment as an attachment. All pricing is to be inclusive of any applicable taxes, shipping, handling, expenses, insurance or other miscellaneous charges. The Bidder agrees that the Owner may increase, decrease, or delete entirely individual items, scheduled quantities of work to be done, or materials to be furnished after execution of the Contract.

E. Submission of Post Bid Information:

Upon notification by Owner, apparent low responsible Bidder shall submit within 5 days:

1. List of names of subcontractors, other persons, organizations, or entities (include those who furnish materials or equipment fabricated to a special design) proposed for such portions of the Work designated in Bidding Documents or names of subcontractors proposed for principal portions of the Work.

## PART 2 - PRODUCTS

### 2.1 APPROVED CABLING

A. The following table lists cabling products and types that have been pre-approved for use. This is not an all-inclusive list of the cabling products and types required to complete this project. The Contractor shall reference the cabling products in this table as a baseline of performance for each cable category. The bidder may submit cable part numbers, models and manufacturer's product other than those listed in this table for consideration and approval per the substitution procedures defined in this Specification.

Type/Application	Description	Manufacturer	Model No.	Comment
Microphone or Line Level Audio	22 AWG STP	Belden	9451	or equal
Microphone or Line Level Audio	22 AWG STP Plenum	Belden	9451P	or equal
Digital Audio – CAT6	23 AWG UTP	Belden	4812	or equal
Digital Audio – CAT6	23 AWG UTP Plenum	Belden	4813	or equal
Loudspeaker or LV Power Supply, 16 AWG	16 AWG UTP	Belden	5200UE	or equal
Loudspeaker or LV Power Supply, 16 AWG	16 AWG UTP Plenum	Belden	6200UE	or equal
Loudspeaker or LV Power Supply, 18 AWG	18 AWG UTP	Belden	5300UE	or equal
Loudspeaker or LV Power Supply, 18 AWG	18 AWG UTP Plenum	Belden	6300UE	or equal
Analog/Digital Video	20 AWG Coax	Belden	1505A	or equal
Analog/Digital Video	20 AWG Coax Plenum	Belden	1506A	or equal

## DESIGN AND PERFORMANCE REQUIREMENTS

### Section A - 21

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc.

Type/Application	Description	Manufacturer	Model No.	Comment
Microphone, Line Level Audio, Relay Control or RS232 (Tx,Rx,Gnd)	22 AWG STP	Belden	9451	or equal
Microphone, Line Level Audio, Relay Control or RS232 (Tx,Rx,Gnd)	22 AWG STP Plenum	Belden	9451P	or equal
Control (RS-232/422)	2-Pair 24 AWG Stranded TC	Belden	8102	or equal
Control (RS-232/422)	2-Pair 24 AWG Stranded TC Plenum	Belden	82502	or equal
Ethernet Control Unshielded CAT5e	4-Pair CAT 5e U/UTP 200 MHz	Belden	1583A	or equal
Ethernet Control Unshielded CAT5e	4-Pair CAT 5e U/UTP 200 MHz, Plenum	Belden	1585A	or equal
Crestron Fiber Optic Cable, Singlemode	8G Singlemode Fiber Optic Cable, x2 zip-cord construction plenum/non-plenum	Crestron	CRESFIBER-8G-SM-P	or equal
Crestron (Cresnet) Cable	2-18 AWG UTP with 2-22 AWG STP	Crestron	CRESNET-NP	or equal
Crestron (Cresnet) Cable	2-18 AWG UTP with 2-22 AWG STP Plenum	Crestron	CRESNET-P	or equal

## 2.2 EQUIPMENT

### A. Bidding Equipment List

- Bidding Equipment Lists are provided to the Contractor for use in preparing the bid response. These lists include major system components and peripherals, but should not be considered to be all inclusive of miscellaneous hardware, connectors or equipment. The complete equipment package bid response will take into account this document, appendices, as well as implied system operability.
- Bidding Equipment Lists are included as an Appendix in this specification.

### B. Connectors, Adapters and Assemblies

- Field terminated connectors shall be compatible and approved for use for a specific cable type and application by the cable and equipment manufacturer.
- Connectors shall be manufactured by Neutrik, Switchcraft, AMP, Amphenol, Kings, Canare, Crestron, Extron, or equal.
- Manufacturer constructed cable adapters and assemblies shall be provided by Crestron or Extron, or be of equal quality and durability.

### C. Panels, Plates and Keypads

- The Contractor shall provide a cover panel for all junction boxes which comprise the audiovisual infrastructure (wall, floor and ceiling). This includes pull boxes, splice boxes and unused or abandoned junction box locations.
- Custom Fabricated Panels and Plates
  - Submit custom panel designs per Submittal requirements prior to fabrication or purchase.

## APPENDICES

## Section B - 1

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

- b. Custom panels and plates shall be machined aluminum, nominal thickness 0.125", with beveled edges and a brushed, anodized finish. Confirm with the Architect required finish color for each panel location. Use of the pull-box manufacturer's construction cover shall not be permitted.
  - c. All panel connectors shall be labeled with engraved lettering, minimum 0.10" letter height, and provided with contrasting paint fill.
  - d. Panels and plates for non-gang pull boxes shall extend past the height and width of the pull box by a minimum of one-half inch on each side.
  - e. Cable access holes in cover plates shall not capture the cables and shall have a protective grommet to prevent cable damage.
3. Manufactured I/O Panels, Control Panels, Keypads and Plates
- a. Submit proposed panel designs per Submittal requirements prior to purchase.
  - b. Panel functionality shall be as defined in the Specification.
  - c. Coordinate color and style with the Architect and/or Consultant.
4. Abandonment Cover Plates at Future Use, Unused or Abandoned Audiovisual Junction Box Locations
- a. Submit proposed abandonment plate selections per Submittal requirements prior to fabrication or purchase.
  - b. Contactor shall coordinate with the Architect and/or Consultant regarding the style, finish and paint color of abandonment cover plates.
  - c. Cover plates for standard gang junction boxes shall match the manufacturer style and color of architectural cover plates used elsewhere on the project.
  - d. For non-standard gang junction box locations provide the box manufacturer's paintable abandonment finish plate.
  - e. At non-standard gang sized junction box locations where a manufacturer's abandonment finish plate is not available, a custom, paintable abandonment plate shall be provided. Custom abandonment plates shall be sized to extend past the height and width of the box by a minimum of one-half inch on each side to mask any gap between the box edge and wallboard.
- D. AV Rack Accessories
1. Provide manufacturers' rack mount adapters where available.
  2. Where manufacturers' rack mount adapters are not available, provide Middle Atlantic Products RSH4S-series custom rack shelf adapters, with –C clamping option as appropriate, or equal.
  3. Blank rack panels: Flanged steel with black textured powder coat finish, Middle Atlantic Products, SB-series, or equal.
  4. Vented rack panels: Middle Atlantic Products black powder coat finish VT-series, or equal.
  5. Rack screws, lacer bars and accessories: Middle Atlantic Products, or equal.
  6. Rack Drawers: Middle Atlantic Products, black textured powder coat finish, TD-series, or equal.
  7. Rack ID Panel: Include single space (1 RU) rack ID panel, Panelcrafters, Inc. Part# SEXTG-26000-RevG at the top of each equipment rack, or group of racks per the Bidding Equipment Lists. Panel shall be digitally printed with logo and contact information for Consultant and Contractor.
  8. Confirm with the Consultant any requirements for security-type rack rail screws, prior to rack fabrication and assembly. Rack rail security screws shall be Middle Atlantic Products, approved style and installation/removal tool type, or equal.
  9. Where locking doors are provided, confirm with the Owner any requirements for keying and, if requested, provide locks keyed alike at no additional cost, if available.

#### E. AV Rack Power Distribution Equipment

1. Where the Technical Power supply to the rack is IG (isolated ground), provide a power distribution system within the rack that maintains the integrity of the IG system.
2. Where 20A power is specified, ensure that all power distribution products are rated for 20A.
3. Vertical power strips: Middle Atlantic Products PDT-series, or equal.
4. Rack rail power strips: Middle Atlantic Products PD-series, or equal.
5. Provide a sufficient number of AC convenience outlets to accommodate all installed equipment plus an extra 20% spare capacity.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

##### A. General

1. All equipment shall be installed in accordance with this Specification, approved Shop Drawings, and manufacturer's recommendations.
2. All equipment with the exception of portable equipment shall be firmly fastened or attached in place. A safety factor of at least four shall be utilized for all brackets, fasteners and attachments. Provide safety retention cables for overhead equipment such as loudspeakers, projectors, etc.
3. In the installation of equipment and cable, consideration shall be given not only to operational efficiency, but also to overall aesthetic factors.
4. The Contractor shall ensure that all equipment is installed such that proper cooling and ventilation is provided.
5. All equipment shall be installed in a manner, which prevents hum, RF/EMI/EMF interference, and mechanical vibration based noises (e.g. fan mounts, etc.)
6. All equipment that includes keyed locks shall be keyed alike, per equipment category. This includes, but is not limited to equipment racks, lecterns, other technical furniture, security mechanisms, etc. The Contractor shall coordinate with the Owner on keying preferences before ordering equipment.
7. All equipment shall be protected from construction dust and debris until the date of Substantial Completion.
8. All equipment shall be protected from theft, damage, or vandalism until the date of Substantial Completion.
9. Any equipment designed for use by end-users in the facilities must be installed with theft deterrence/protection mountings and fasteners. Any tools required to mount/un-mount this equipment must be furnished to the Owner at the date of Final Acceptance.

##### B. Furniture

1. The Contractor shall ensure that equipment or mounting hardware is compatible with and suitable for installation in furniture specified by the Architect, Consultant, or Furniture Supplier. It shall further be the Contractor's responsibility to ensure that such coordination with the Architect, Consultant, or Furniture Supplier occurs. The Contractor shall exchange with and follow such Shop Drawings as to ensure that dimensions and structural supports are adequate for the installation of specified equipment. In addition, the Contractor shall confirm that the furniture accommodates the audiovisual equipment's' environmental and electrical operating parameters. It is the Contractor's responsibility that the request and delivery of such critical coordination information is satisfactorily executed. In as much as the Contractor has control over the delivery of such information, he shall deliver it as requested by the Architect, Consultant, or Furniture Supplier.

##### C. Equipment Racks and Equipment Rack Cable Management

1. Racks shall be installed in such a way so as to permit access to all equipment for service.

#### APPENDICES

#### Section B - 3

2. All equipment in racks shall be fitted with vent panels and/or fans as required to provide ventilation and cooling according to equipment manufacturer's recommendations.
3. Unused front facing rack spaces shall be fitted with blank rack panels.
4. Use rear and mid rails for intermediate terminations. Maintain accessibility to the rear of the equipment.
5. Mid rails must be used to support equipment weighing more than 50 pounds.
6. As a general practice, all power cables, control cables, and high-level cables shall be dressed to the left rear of an equipment rack. Audio and video cables shall be dressed to the right rear of the rack. Audio, video and control cables shall be bundled separately and spaced not less than three (3) inches apart.
7. Internal equipment rack cabling shall be supported by lacing strips, support brackets, or other cable management systems as required to ensure that all cabling is supported in both the vertical and horizontal planes within the rack.
8. With the exception of ganged equipment rack assemblies, cabling routed between equipment racks or pieces of equipment exterior to equipment racks, or extending to the greater facility cabling infrastructure, shall be completely protected, end-to-end, by a raceway, wire-way, or duct appropriately sized for the cable run.
9. Cabling between rolling pieces of equipment not housed in rack cabinets or a rolling equipment rack and any device to which it is connected, shall be protected by a split-loom corrugated tubing wrap or other such flexible cable management system appropriately sized for the cable run.

#### D. Video Displays

1. Turn off or disable all eco, green or energy saving modes on all flat panel where displays are to be controlled by an external control system
2. Video settings should be adjusted on all flat panel displays to optimize color and contrast. Settings should be identical between multiple displays within the same room, area, or room type. Any dynamic contrast modes within flat panel displays shall be disabled.

#### E. Cabling

1. All cabling and termination shall be executed in adherence to standard industry practices and as outlined in:
  - a. AV Installation Handbook: Best Practices for Quality Audiovisual Systems: AVIXA/InfoComm International, latest edition.
  - b. Philip Giddings - Audio Systems Design and Installation: Boston Focal Press, latest edition.
  - c. Kenneth T. Deschler - Cable System Design and Installation: McGraw-Hill, Inc. latest edition.
2. Cable Length Verification: Cable lengths where given in the Specification, for bulk or manufactured cable assemblies, have been provided to assist the Contractor in the bidding process. Cable run lengths, where specified, are end-point-to-end-point estimates and include consideration for tails. Estimates may be based upon cable tray systems; raceways, conduit runs, and furniture layouts indicated on construction drawings and may vary from the actual installed cable pathways. It is responsibility of the Contractor to field verify required cable lengths for bulk cable or manufactured cable assemblies prior to ordering.
3. Cable Installation
  - a. Non-contiguous cable support mechanisms such as hangers, rings, and hooks shall not be spaced farther than four (4) feet apart. All manufactured raceways used for cables shall be installed according to the raceway manufacturer's specifications
  - b. Cable runs shall be supported with devices designed for this purpose and are to be installed independent of any other structural component.

#### APPENDICES

#### Section B - 4

- c. Cables routed vertically up walls, or between floors as vertical riser, shall be supported with clamps or other mechanisms. These supports shall occur at least three times per floor.
  - d. The Contractor shall maintain, or where not already existing, provide through penetration fire stop systems to prevent the spread of fire through openings made in fire-rated walls or floors to accommodate penetrating items such as conduit, cables or other pathway. Fire stop shall restore floor and wall to the original fire rated integrity. The fire stop systems and products shall have been tested in accordance with the procedures of U.L. and material shall be U.L. classified as materials for use in through-penetration fire stops.
  - e. The fire stop system shall comply with the NEC and with NFPA 101-Life Safety Code (latest edition) and shall be made available for inspection by the local inspection authorities prior to cable system acceptance. The Contractor shall be responsible for verifying the fire rating of all walls and floors affected by his/her work.
  - f. Cables shall not be exposed to paint or paint remover, which may degrade the performance of the cable, void the manufacturer's warranty, alter the flame and/or smoke characteristics of the cable, or obscure the flame rating designations printed on the jacket. Cables exposed to paint or paint remover shall be replaced by the Contractor.
  - g. Cable pulling tension may not exceed manufacturer recommendations. Where cable-pulling lubricant is used, the lubricant must be compatible (non-damaging) with the conduit and cable sleeve materials and must not harden over time to prevent future pulls.
  - h. Cable stapling of any recognized media type shall not be permitted.
  - i. Cables shall be dressed in conveniently sized bundles and either laced or banded. Lacing or banding shall not be so tight as to deform cable bundles.
  - j. Cabling installed with a bend radius less than that recommended by the cabling manufacturer is not acceptable.
  - k. Cables and bundles terminating at equipment or connector panels shall be supported so as not to put strain on connections or connectors.
  - l. All cables, with the exception of video or pulse cables, which must be cut to an electrical length, shall be cut to the length dictated by the run. No splices shall be permitted in any pull boxes without prior approval of the Consultant.
  - m. Cabling for equipment mounted in drawers or on slides shall be provided with a service loop of appropriate length. A cable management support for the service loop shall be provided to prevent the service loop travel from interfering with the operation of the drawer or slide or snagging on adjacent cabling.
  - n. Microphone level, line level, loudspeaker level, and video lines shall be run in separate conduits, trough, raceway divider, and cable bundles. Low voltage DC and control may be run along with any but microphone or line level audio runs.
4. Termination
- a. All termination components must meet or exceed all specifications for given media type and application as described in this document and system drawings.
  - b. Crimp on connectors shall be installed only on the appropriate size cable using the manufacturer recommended crimp tool and die set.
  - c. Connections to electronic devices providing screw terminals shall be terminated using the appropriate gauge insulated spade or ring crimp terminal connector and crimp tool.
  - d. All mechanical solder-on connectors shall be attached to cable ends using rosin core solder.
  - e. Audio signal cable shields shall be protected with the appropriate gauge Teflon or heat-shrinkable tubing. The jacket end of each audio cable shall be fitted with the appropriate gauge heat shrinkable tubing to provide additional protection to the base

## APPENDICES

## Section B - 5

of the shield or shield foil. This also applies to the inside of mechanical connectors and cables that terminate at partitioned barrier strips.

5. Analog Audio Microphone and Line Level Systems
  - a. General
    - 1). All analog audio microphone and line level cabling installed by the Contractor to support AV Systems connectivity shall meet the equipment manufacturer's specifications for cable and connector types, installation methods and routing, separation distance from adjacent services, maximum number of disconnect points and maximum overall cable run lengths required to meet the systems design performance criteria. The cabling system shall be tested, verified and documented.
  - b. Test for continuity of each conductor, polarity, signal loss and proper shield grounding and integrity.
  - c. Testing to be performed using an NTi MR-PRO Audio Generator and Impedance Meter, or equal.
6. Analog Audio Loudspeaker Line Level Systems
  - a. General
    - 1). All analog audio loudspeaker line level cabling installed by the Contractor to support AV Systems connectivity shall meet the equipment manufacturer's specifications for cable and connector types, installation methods and routing, separation distance from adjacent services, maximum number of disconnect points and maximum overall cable run lengths required to meet the systems design performance criteria. The cabling system shall be tested, verified and documented.
  - b. Test for continuity, polarity, impedance, signal loss and (if required) proper shield grounding and integrity.
  - c. Low impedance loudspeaker lines:
    - 1). Test impedance at 1000Hz.
    - 2). Test polarity of installed loudspeakers.
  - d. 70-volt loudspeaker lines:
    - 1). Test watts load at 1000Hz.
    - 2). Test polarity of installed loudspeakers.
  - e. Testing to be performed using an NTi MR-PRO Audio Generator and Impedance Meter, or equal.
7. Category Cabling and Connectors for AV Systems
  - a. General
    - 1). All category cabling installed by the Contractor to support AV Systems connectivity shall meet the equipment manufacturer's specifications for cable and connector types, installation methods and routing, separation distance from adjacent services, maximum number of disconnect points and maximum overall cable run lengths required to meet the systems design performance criteria. The category cabling system shall be tested, verified and documented to meet the ANSI/TIA-568-C.2 Standard, including all applicable Addenda.
  - b. Digital Media Distribution Systems
    - 1). Each digital AV over RJ-45 receptacle, permanently installed cable, equipment cord, patch cord and patch panel will be of a color or have markings that are non-standard with the voice/data system and be plainly and permanently labeled "AV ONLY".
  - c. AV Control Ethernet Systems
    - 1). AV Contractor provided network equipment and connections for AV equipment



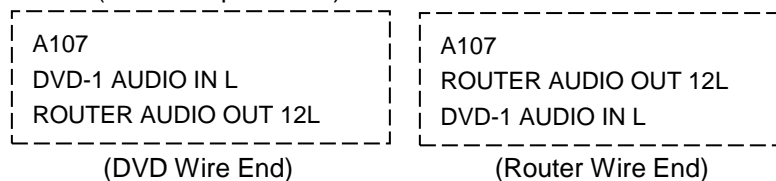
- control over Ethernet: all RJ-45 style room boundary wall panel or floor box panel connections provided by the AV Contractor shall be mechanically keyed with color-specific positive and negative keying features to prevent unintentional mating with unlike keyed or non-keyed patch cables.
- 2). Each digital AV permanently installed category cable, equipment cord patch cord and patch panel will be of a color or have markings that are non-standard with the voice/data system and be plainly and permanently labeled “AV ONLY – NOT DATA”.
- d. Category Cabling Systems Installation and Testing
- 1). Where indicated, the Contractor will be required to provide a dedicated system of category cabling to support the transmission of digital AV signals. Depending upon the application, the cabling system topology may be point-to-point or be comprised of a system of work area outlets terminated at patch panels.
  - 2). The Contractor shall test, verify and document the length, wire map and transmission performance of each Channel Link (Permanent Link + Station Cables) using a Fluke DSX-5000 Cable Analyzer System, including DSX-5000 Versiv Mainframe and Remote, LinkWare PC Software, CAT 6A/Class EA Permanent Link Adaptors and CAT 6A/Class EA Channel Adapters. This tester shall be used during testing of this project. Included features shall include the ability to integrate with labeling and cable management software, which yields downloadable 606-A cable IDs, ensuring data accuracy. Channel tests are the only acceptable test format for testing Category cabling. Link tests will not be sufficient.
  - 3). All category cable Channel and Permanent Links shall be tested to prove compliance with the current industry standard, ANSI/TIA-568-C.2 and any subsequent addenda. The field test equipment shall meet the requirements of ANSI/TIA/EIA-568-C including applicable Technical Service Bulletins and amendments. The appropriate level III tester shall be used to verify each individual type of category cabling systems.
  - 4). Category 5, 5e and 5e+ testing of channel, permanent link and twisted pair cables shall be performed using the recommended test equipment specifically designed to test cables for all ANSI/TIA-568-C.2 Category 5e parameters from 1 – 100 MHz. Testers shall be loaded with the most recent test values per the above referenced standard. The Contractor may be required to provide documentation (or demonstration) that the testers used are properly programmed as described above.
  - 5). Category 6 and 6+ testing of channel, permanent link and twisted pair cables shall be performed using the recommended test equipment specifically designed to test cables for all ANSI/TIA-568-C.2 Category 6 parameters from 1 – 250 MHz. Testers shall be loaded with the most recent test values per the above referenced standard. The Contractor may be required to provide documentation (or demonstration) that the testers used are properly programmed as described above.
  - 6). Category 6A and 7a testing of channel, permanent link and twisted pair cables shall be performed using the recommended test equipment specifically designed to test cables for all ANSI/TIA-568-C.2 Category 6A parameters from 1 – 500 MHz. Testers shall be loaded with the most recent test values per the above referenced standard. The Contractor may be required to provide documentation (or demonstration) that the testers used are properly programmed as described above.
- e. AV Control Ethernet Systems
- 1). AV Contractor provided network equipment and connections for AV equipment control over Ethernet: all optical fiber style room boundary wall panel or floor box panel connections provided by the AV Contractor shall be mechanically keyed

with color-specific positive and negative keying features to prevent unintentional mating with unlike keyed or non-keyed patch cables.

- 2). Each digital AV permanently installed optical fiber cable, equipment cord patch cord and patch panel will be of a color or have markings that are non-standard with the voice/data system and be plainly and permanently labeled “AV ONLY – NOT DATA”.

#### F. Labels / Wire Markers

1. For cable labeling, reference ANSI/INFOCOMM Standard F501.01:2015, Cable Labeling for Audiovisual Systems (CLAS)
2. Except where otherwise indicated, all rack-mounted equipment, switches, controls, and interface panels shall be clearly labeled.
  - a. Panels and plates shall be a minimum 1/8" thick anodized aluminum etched and epoxy filled unless otherwise specified.
  - b. Rack mounted equipment shall be labeled with engraved and filled plastic laminate. Where appropriate, the function of, or the input, output, or loudspeaker(s), served by each device shall be indicated. Other methods of labeling rack mounted equipment may be accepted pending prior approval by the Consultant.
  - c. All cables shall be permanently identified at each end by machine printed cable markers.
    - 1). Every cable shall have a unique tag number identifier for each cable. The Contractor shall include this unique tag number on the As-Built signal flow documentation.
    - 2). Cable markers shall be placed two (2) inches from where the cable exits the strain relief of the connector, but never within a cable bundle.
    - 3). Each cable marker shall include, in addition to the unique tag number identifier, the name of the origination and destination equipment termination at each cable end (see example below).



#### G. Technical Power

1. Separate electrical power for media systems has been provided at this site and is designated as “technical power.” The technical power grid incorporates a grounding system utilizing a dedicated insulated ground cable for each receptacle, each of which is connected to the main technical power distribution panel. The Contractor shall be responsible for verifying that all media systems electronics, racks, and components derive their power from technical power receptacles only.
  - a. All AC power distribution within equipment racks shall utilize a star grounding topology and isolated ground receptacles.
  - b. Equipment rack power distribution systems shall be grounded by way of the 3-conductor AC line cord(s) provided with such equipment.

#### H. Grounding

1. To avoid system noise, data errors, safety hazards, and equipment damage, all devices and cabling shall be installed using a consistent grounding scheme. This section offers guidelines for grounding and shielding methodology. Grounding and shielding methodology may need to be augmented or modified for certain pieces of equipment or interconnections in order to meet the requirements of other sections of this specification. The Contractor shall be responsible for making necessary alterations in accordance with industry practices

and such that the Performance Standards detailed in 'Performance Standards' are met.

- a. Grounding and shielding systems shall be executed in adherence to standard industry practices and as outlined in:
  - 1). AV Installation Handbook: Best Practices for Quality Audiovisual Systems – Second Edition: AVIXA/InfoComm International, 2009
  - 2). Basics of Audio and Visual Systems Design handbook: Section 10, "Technical Power and Grounding Systems" – Revised Edition: AVIXA/InfoComm International 2003
- b. Ground conductors referred to in this section shall be 10AWG insulated solid copper cable. Ground conductors shall be terminated using a closed ring lug, of proper size for each application, which shall be connected to system electronic components and the equipment rack master bus using nuts, bolts, and lock washers.
- c. Under no circumstances shall an AC neutral conductor be used to ground equipment.
- d. Interconnection
  - 1). All audio interconnections with cable lengths greater than 10 feet shall use balanced (symmetrical) signaling.
  - 2). All connectors used on system I/O panels shall be electrically isolated from the panel and provide a pass through (uninterrupted) ground connection.
  - 3). All audio signal cable shields shall be grounded only at the output connection of each device. Signal cable shields, both connected to devices and floating, shall be protected by the appropriate gauge heat shrinkable tubing. Cable shields at the input connector end of the cable shall be folded back over the cable jacket and covered with heat-shrinkable tubing. Do not cut off unused shields.
  - 4). Microphone cable shields shall be connected at both ends.
  - 5). Coaxial video and RF shields shall be connected at both ends.

#### I. Pull Strings

1. A nylon pull string shall be left in every conduit. In the event additional cables are pulled in after the initial cable pull, a nylon pull string shall be pulled with the added cable.

### 3.2 CONTROL SYSTEM SOFTWARE DESIGN & DEVELOPMENT

#### A. Control System Overview

1. Crestron control system processors shall provide local audiovisual systems and supplemental architectural device control for each of the controlled spaces.
2. Crestron touch panels, button panels and software applications shall be provided as the human interface devices for each of the control systems.

#### B. Graphical User Interface / Touch Panels

##### 1. General

- a. The following guidelines are not intended to limit the creativity of the Programmer when designing the software nor are they all-inclusive. Rather, they are concepts and guidelines to ensure that a fully functional, easy to operate control system for the Owner is provided.
- b. The Control System shall employ an easy to use, intuitive, touch panel graphical user interface. Touch panel control shall be icon based and utilize graphical representations that mimic the actual device for all devices under control. In every case where the device under control offers feedback, the Control System shall provide indication on the touch panel(s) of individual component control state conditions.
- c. A "Quit", "System Shutdown" or similar button shall be available from the Main Menu. When the User has selected this button, a confirmation screen indicating that the shutdown sequence has been selected, and a message will pop-up reminding the

#### APPENDICES

#### Section B - 9

User to remove all media such as DVD or Blu-Ray discs. A second button press shall be required to initiate the power down sequence.

- d. All pages shall maintain a consistent graphical “look and feel.”
  - e. The opening page should have, at a minimum, an Owner logo, a large button to start the system, and the ability to control the lighting system (and motorized shades if so equipped) without powering up the entire system.
  - f. After system start-up, the primary page or main menu in each presentation space shall display (at a minimum) a room identifier; all relevant input sources grouped together, all environmental controls grouped together, a quit option, a date icon displaying the current date, and a clock indicating current local time
  - g. The AVContractor will determine with the Owner those control panels requiring passwords and limited access.
  - h. Each touch panel shall provide a method for service personnel to access detailed system information and configuration menus. This information might be accessed by service personnel via a hidden button and/or by entering a password. Configuration menus should include other control functions useful to service personnel.
  - i. The information page should include the following: “System Designed by The Sextant Group, Inc. ph.(412)-323-8580 <http://www.thesextantgroup.com>”; “System Installed by \_\_\_\_\_, ph. (xxx) xxx-xxxx, and website address; “Programming Supplied by \_\_\_\_\_ “Program Name”; “Compiler Version X.0”; “Panel File #” ; and other relevant system software information.
2. Audio Control
- a. A volume control icon shall be available to the User at any time there is an audio enabled system.
  - b. Program audio: provide both level up/down and mute controls.
  - c. Speech audio: provide both level up/down and mute controls separate from the Program audio.
  - d. Microphone levels: when multiple microphone level control is required, provide a separate gain and mute control for each microphone in the mix. Microphone mix controls shall be on a separate, password protected setup page.
  - e. A clearly visible mute button with positive feedback to an on/off indicator on the touch panel shall also be included.
  - f. The AV Contractor shall set the system’s master gain control such that the user has a reasonable range of audio level, but the maximum level is set below that which could allow the user to inadvertently cause harm to system components or cause feedback in the system.
  - g. The control system shall automatically reset the audio levels to an indexed preset level each time the system is shut down or restarted.
  - h. Pressing a video source device button followed by pressing a ‘display’ (or similarly labeled) button will route the source’s video signal to the primary display. The source device’s audio will be simultaneously routed to the room’s sound reinforcement system (audio follow).
  - i. In systems with multiple assignable video displays:
    - 1). The video preview window shall include a button, or buttons, representing each assignable video display connected to the system. Where touch panel size permits, this should take the form of a graphical representation of the room with a display assignment button showing the relative location of each display.
    - 2). Pressing a video source device button followed by pressing a display assignment button will route the source’s video signal to that display. This process can be repeated to assign a single video source to multiple displays.
  - j. In systems with multiple assignable video displays and a single sound reinforcement

## APPENDICES

## Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

- 1). A method shall be provided by which users may select which video source's audio signal is to be routed to the room's sound reinforcement system (audio break away).
- k. In systems with multiple assignable video displays:
  - 1). A method shall be provided by which users may select which video source's audio signal is to be routed to each sound reinforcement system (audio break away). An example might be a room with a projection screen that also contains multiple collaboration pods served by flat panel displays with integral loudspeakers.

### C. Controlled Devices

1. Where specified components permit, the Control System shall provide positive feedback of individual component control-state conditions to the touch panel. For example, the touch panel page to control a Blu-Ray or DVD player shall have a status window indicating the status of the device (such as "Play Mode") or the absence of media (such as "No Disc"). If environmental controls are triggered with a particular device, the trigger for that environmental control should be feedback from the device rather than a simple button push. For example, if the control system is to automatically lower the lights when the DVD player is placed in "Play" mode, the control system should not directly trigger the lighting preset from the "Play" button press, but rather by first confirming that a disc is present in the player and that the player is in fact in "Play" mode.
2. If so requested by the Owner, all or select control system processors shall be programmed with an Auto Shutdown feature. Auto Shutdown will automatically power down a system at a given time unless overridden by the local User or System Administrator. The Auto Shutdown feature shall function as follows: For any given room, when Auto Shutdown is set to "On", the system will power down at a time specified by the Owner, 10:00 PM for example. Ten minutes prior to the specified time, the touch panel shall display a warning message and beep indicating that the system will shut down unless the local defeat button on the panel is pressed within the ten-minute time limit. Pressing the local defeat button will delay the Auto Shutdown sequence by one-hour, or other set length of time as requested by the Owner. Fifty minutes after the one-hour delay button has been pressed, the warning message and beep indicating that the system will shut down unless the local defeat button on the panel is pressed within the ten-minute time limit will appear. This sequence shall continue so long as the operator continues to press the delay button.
3. Resident PCs should be connected to constant power sources, not switched power, and should never be powered down from the control system.
4. As previously mentioned, each media playback device shall have its transport controls duplicated on the touch panel video preview page, or in the case of an audio-only device, a dedicated control page. The control functionality for each device shall closely mimic the control functions on the device itself. For example, a Blu-Ray player, DVD player, VCR, or cassette deck shall have, at minimum, the five basic transport functions, play, stop, fast-forward, rewind, and pause. The Play and Stop buttons should be prominent. All transport buttons should change state when active.
5. For a tuner with RS-232 control, a dialing-style keypad that will mimic a telephone keypad display to allow selection from the touch panel. Provide a display above the keypad to display the selected channel. This should be similar to a desktop telephone with a small LCD screen above the keypad, which indicates the key-presses of the selected channel. The display above the keypad should indicate the current Function (AM, FM or TV) and channel. Provide Up and Down arrow buttons to allow scrolling through channels. If the Owner so desires, provide up to 8 channel preset recall buttons corresponding to the proprietary cable system.
6. For devices that require keypad-style dialing, such as audio or video conferencing, mimic a telephone keypad display to allow dialing from the touch panel. Provide a display above the keypad to display the number being dialed. This should be similar to an LCD screen on a

### APPENDICES

### Section B -

desktop telephone with a small LCD screen above the keypad, which indicates the key-presses of the number dialed. If a “9”, an access code or other prefix is required to dial an outside line, leave this prefix as a default. Provide a backspace key to modify dialed numbers. Provide a button to provide dial tone, a button to dial the number, and a button to terminate the call (similar to a cell phone).

### 3.3 PERFORMANCE STANDARDS

#### A. Audio

##### 1. Speech Signal

- a. The system shall provide a speech signal in the audience seating area that meets or exceeds the following requirements:
  - 1). Frequency response within  $\pm 3$  dB from 500 Hz to 15,000 Hz.
  - 2). Overall SPL variance of  $\pm 3$  dB.
  - 3). Measured Alcons of 10% or lower.
  - 4). Minimum average SPL of 87 dB Z-weighted (flat), with 10 dB of undistorted headroom available.

##### 2. Music Signal

- a. The system shall provide a music signal in the audience seating area that meets or exceeds the following requirements:
  - 1). Frequency response within  $\pm 3$  dB from 200 Hz to 17,000 Hz.
  - 2). Overall SPL variance of  $\pm 3$  dB.
  - 3). Minimum average SPL of 93 dB Z-weighted (flat), with 10 dB of undistorted headroom available.

#### B. Video

##### 1. Digital Video

- a. Based on the connectivity requirements provided by the AV systems design, the Contractor shall test the digital video system to ensure that it meets the following standards, as applicable:
  - 1). CEA-861-F
  - 2). Single-link DVI
  - 3). Dual-link DVI
  - 4). HDMI 1.4b
  - 5). DisplayPort 1.2
  - 6). Thunderbolt v1.2
  - 7). MiniDisplayPort v1.2

##### 2. High-Definition Multimedia Interface (HDMI)

- a. The Contractor shall test the video system to ensure that it meets the Engineering Standards of the HDMI2.0 Specification as administered by HDMI Licensing, LLC.
- b. At the points of interconnection, the input and output impedance of each link shall be balanced to ground, nominally 100 ohms  $\pm$  10 ohms.
- c. The proper shape of the digital video’s RGB channels, or “eye pattern”, as it appears on an oscilloscope, must be maintained. Refer to the HDMI Specification by HDMI Licensing, LLC for required eye opening values and minimum standards for signal integrity.

##### 3. Display Port

- a. The Contractor shall test the video system to ensure that it meets the Engineering Standards of Version 1.2a of the DisplayPort Standards as administered by the Video Electronics Standards Association (VESA).

#### APPENDICES

#### Section B -

- b. At the points of interconnection, the input and output impedance of each link shall be balanced to ground, nominally 100 ohms  $\pm$  10 ohms.
  - c. System shall support up to and including:
    - 1). 10.8 Gbps data rate
    - 2). 2560x1600 @60Hz resolution
    - 3). 60Hz vertical frequency
  - d. The proper shape of the digital video's RGB channels, or "eye pattern", as it appears on an oscilloscope, must be maintained. Refer to the DisplayPort Standards by VESA for required eye opening values and minimum standards for signal integrity.
4. High-Bandwidth Digital Content Protection (HDCP)
- a. All digital video sources, sinks, and repeaters shall comply with the Digital Content Protection LLC HDCP 2.2 specifications.
  - b. All digital video sources, sinks, and repeaters shall scan for the presence of HDCP and if present, perform all HDCP stages according to the HDCP specification, with no more than 5 seconds total time delay between source selection or input and video appearing:
    - 1). Authentication and Key Exchange – Keys are exchanged and verified. The hardware will store / cache the Key Selection Vector (KSV)  $k_m$  to speed up video switching.
    - 2). If receiver is a repeater, data about downstream devices is sent to transmitter.
    - 3). Information is sent to transmitter every two seconds during entire HDCP session to ensure encryption is in sync between all transmitter/receiver pairs in the tree.
  - c. The distribution system shall authenticate all cached KSVs with each source up to the source's KSV limit, so that authentication does not need to be re-started each time content is routed to a new output.
  - d. The distribution system shall not send a source more KSVs than it supports.
5. Extended Display Identification Data (EDID)
- a. All system components generating or accepting certain digital video signals shall provide the following information within the EDID transmission.
    - 1). Product make, model, and serial number
    - 2). Current EDID version and revision
    - 3). Maximum image size
    - 4). A table of supported input/output resolutions and timings
    - 5). 3D support status for each input/output
    - 6). Supported color formats
    - 7). Supported audio formats for each input/output
6. Serial Bus Communications
- a. Based on the connectivity requirements provided by the AV systems design, the Contractor shall test all serial bus communications links to ensure that they meet the following standards, as applicable:
    - 1). USB 2.0
    - 2). IEEE-1394b
    - 3). Thunderbolt v1.2

### 3.4 SYSTEM SETUP, TUNING AND TESTING

- A. The Contractor shall install, configure, adjust, program, and calibrate all components in order to optimize the performance of all individual subsystems and the system as a whole
- B. Once the system is installed, the Contractor shall complete the following preliminary tests.

#### APPENDICES

#### Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

## 1. Audio

- a. Prior to the termination of audio amplifiers to speakers, the Contractor shall measure the resistance of the speaker line with reference to ground to determine that no short circuits or paths to ground exist in the line. The Contractor shall connect the speaker to the cable and measure the impedance of each speaker line using a 1,000Hz signal applied to the line. The Contractor shall submit a list, to the Consultant and Owner, by cable number, of the impedance of each speaker line. This test shall be performed with the amplifier disconnected from the speaker line and the speaker connected to the speaker line.
- b. Verify all loudspeakers are working.
- c. Verify that the system meets all Performance Standards as outlined in 'Performance Standards'.
- d. Verify that all equipment, panels, and cables are labeled correctly.
- e. Verify each item of equipment is functioning as intended.
- f. Verify the installation is the same as specified.

## 2. Additional Audio System Processing Adjustments

- a. Where applicable, the Contractor shall program the DSP system to include filters adjusted such that the loudspeaker effected by same are measured to exhibit uniform (flat) frequency response (less than +/- 3 dB) at the listening location for the frequencies the transducer is designed/intended to address. The exception to this rule shall be in speech reinforcement systems where additional adjustments shall be made to ensure maximum gain with minimum feedback.
- b. Measurements utilized for determining filter adjustments shall be made on axis with respect to a single transducer in its intended field of coverage. Loudspeaker cross-over filters shall be provided first for all actively crossed transducers per loudspeaker manufacturer's instructions. Additional filters will still be required to achieve uniform frequency response measured at the various listening locations.
- c. For loudspeaker of small transducers, utilize high-pass filters first and foremost and then utilize parametric EQ filters to flatten the measured response.
- d. The Consultant may request additional filters and delay (as required) to address 'tuning preferences', but such 'tuning preferences' shall not be considered as part of the base line requirements for determining substantial completion of the audio system. Flat frequency response and time alignment of the direct sound from the loudspeakers will be considered a base line requirement for determining substantial completion of the audio system.

## 3. Computer Configuration – OFCI (Owner Furnished Contractor Installed)

- a. The Contractor shall be responsible for coordinating with the Owner regarding the specific requirements of Owner furnished computers and/or servers as applicable to meet the functional requirements of the audiovisual systems as specified.
- b. Coordination shall ensure that the computers and/or servers meet the recommended hardware configuration required by the Audiovisual Systems as well as for all software applications, including any software provided as part of this Specification, Owner furnished software integral to the functionality of the audiovisual system, and custom software that is developed through a 3rd-party for use within the audiovisual system.
- c. Contractor coordination with the Owner on the requirements of OFCI computers shall include but may not be limited to:
  - 1). Form factor
  - 2). Firmware
  - 3). Operating System (OS)
  - 4). Memory
  - 5). Hardware versus firmware, versus OS, versus software compatibility

## APPENDICES

## Section B -



- 6). Video output quantity and type
  - 7). Audio output quantity and type
  - 8). Network connection(s) quantity and type
  - 9). USB port quantity and type
  - 10). Power supply(s)
  - 11). Display type, resolution, size and quantity
  - 12). Peripherals, including but not limited to:
    - a). Keyboard
    - b). Mouse
    - c). Cameras
    - d). Microphones
    - e). USB enabled devices
    - f). Others as specified
  - d. The Contractor shall further coordinate with the Owner's IT department to:
    - 1). Install and configure the furnished computer hardware to function within the audiovisual system as intended by this Specification. This includes but is not limited to the configuration of the following:
      - a). Display Settings
      - b). Audio settings
      - c). Network settings
      - d). USB devices and drivers
      - e). Others as specified
    - 2). Install and configure any software provided as part of this Specification.
    - 3). Configure any Owner provided software that is integral to the functionality of the audiovisual system.
  - e. The Contractor shall provide to the Owner a date by which all computers must be available to the Contractor for final installation and configuration.
4. DVI, HDMI, DisplayPort, MiniDisplayPort and Thunderbolt Digital Video
- a. To establish that the facility cabling and terminations meet the specifications defined in 'Performance Standards', a video test signal shall be applied to each input cable and passed through the system switching and distribution networks with test patterns observed at each system display.
  - b. Test signals shall be generated using a Quantum Data 780 (or equal).
  - c. Execute at a minimum, the following functional sink tests:
    - 1). HDCP verification
    - 2). EDID emulation
    - 3). Video pattern testing. The following test patterns (at a minimum) shall be observed:
      - a). Circles – no visible deviation from image geometry and linearity
      - b). Safe area – no visible horizontal or vertical over or under scan
      - c). Focus – proper image delineation in all areas
      - d). Coarse Crosshatch – no vertical or horizontal bowing
      - e). Fine Crosshatch – no vertical or horizontal bowing
      - f). PLUGE – properly set black level (brightness) and display gain (contrast)
      - g). 32-Level Split Grayscale – even transition from black to white, no color shift
      - h). SMPTE Color Bars with PLUGE pattern – no color or pattern deviations

#### APPENDICES

#### Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

- i). Flat Field – uniform white field with no color, hot or dark spotting
- j). Hum Bar Detect – no visible hum bars
- d. Execute at a minimum, the following functional source tests:
  - 1). Status bar showing HDMI In
  - 2). View incoming video
  - 3). Monitor incoming audio
  - 4). EDID emulation
5. High-Bandwidth Digital Content Protection (HDCP)
  - a. Use a Quantum Data QD-882EA video test generator or similar to verify a “Pass” test that HDCP is performing to specification for source tests using a sink emulator and/or protocol analyzer; and sink devices using source emulators or protocol generators including the following parameters:
    - 1). Protocol adherence
    - 2). Audio/Video Format Switching
    - 3). Media Switching
    - 4). Force AVMUTE
    - 5). Link Integrity (Pj) Check Repeat Rate
    - 6). Pj Mismatch Response
    - 7). Number of Keys (source test with sink emulator)
6. Extended Display Identification Data (EDID)
  - a. The Contractor shall ensure that all devices capable of generating or accepting EDID information have been updated with the latest version of the EDID standard.
  - b. The Contractor shall modify all EDID tables to ensure that the highest common resolution is used by each device within a given system.
  - c. The Contractor shall modify the EDID tables to include the most common computer/laptop resolutions used within the facility. Coordination with the Owner shall be required.
  - d. The Contractor shall ensure that EDID information is maintained through the signal chain and that intermediary devices that pass or modify the EDID information conform to the other requirements stated within this Specification.
7. Computer / Video Display Devices
  - a. The Contractor shall optimize equipment for the following minimum standard scan rates and resolutions:
    - 1). NTSC
    - 2). HDTV: 720p/60, 1080i/60 and 1080p/60
    - 3). XGA: 1024 x 768, 60Hz, 70Hz, 72Hz and 75Hz.
    - 4). WXGA: 1280 x 800, 60Hz.
    - 5). WXGA: 1360 x 768, 60Hz.
    - 6). WXGA: 1366 x 768, 60Hz.
    - 7). WXGA+: 1440 x 900, 60Hz.
    - 8). SXGA: 1280 x 1024, 60Hz.
    - 9). SXGA+: 1400 x 1050, 60Hz.
    - 10).WSXGA+: 1680 x 1050, 60Hz.
    - 11).UXGA: 1600 x 1200, 60Hz and 75Hz.
    - 12).WUXGA: 1920 x 1200, 60Hz.
    - 13).UHD: 3840 X 2160, 120Hz.
    - 14).4K: 4096 X 2160, 120Hz.

## APPENDICES

## Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

8. Control
  - a. Upon completion of installation, the Contractor shall test each function of each control station, push-button panel, touch screen panel, computer control interface, and all components connected to or interfaced to the Control System to verify proper operation and that each switch and indicator operates as intended.
9. Systems Overview
  - a. In addition, the Contractor shall:
    - 1). Verify each item of equipment is functioning as intended.
    - 2). Verify the installation is the same as specified.

END OF SECTION A

## APPENDICES

## Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

**SECTION B – APPENDICES**

## 1.1 LIST OF DRAWINGS

<b>Drawing No.</b>	<b>Description</b>
SY00	Audiovisual System Cover Sheet
SY01	Audiovisual Systems Signal Flow Drawings

## 1.2 REFERENCE DRAWINGS

- A. The following drawings have been included for the Bidders reference in bidding the work called for by the Contract Documents. Reference drawings may not reflect as-built conditions. It shall be the responsibility of the Contractor to field verify all site conditions.

<b>Drawing No.</b>	<b>Description</b>
T001	Technology Infrastructure Schedule and Legends
AV101-1	AV Equipment Plan Furniture Option 1
AV101-2	AV Equipment Plan Furniture Option 2
T101	Technology Infrastructure Floor Plan
T121	Technology Infrastructure Reflected Ceiling Plan
T131-1	Telecom Plan Furniture Option 1
T131-2	Telecom Plan Furniture Option 2
T201	Technology Infrastructure Elevations
T301	Technology Infrastructure Room Risers
T401	Technology Infrastructure Details

## APPENDICES

## Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

## 1.1 SUMMARY OF AUDIOVISUAL SYSTEMS SUBMITTALS

<b>Description</b>	<b>Deadline</b>
Contractor Qualifications	Per Appendix C
Request for Information (Pre-Bid)	Per Appendix C
Substitution Requests	Per Appendix C
Line item pricing	Post-bid, if requested
Bonds	Owner Documentation
Schedule	Within 15 days of notification of contract award
Progress Reports	While working off-site: every two weeks While working on-site: every week.
Shop Drawings	Prior to equipment and materials purchase, fabrication, or installation
Bill of Materials	Prior to equipment and materials purchase, fabrication, or installation
Audio Digital Signal Processing (DSP)	Per Contractor's published schedule
Control System Preliminary Control Surfaces/GUI Submittal	Per Contractor's published schedule
Control System Revised Control Surfaces/GUI Submittal	Per Contractor's published schedule
Preliminary As-Built Drawing Submittal	Prior to Final Testing and System Performance Verification
Final Documentation	Following successful completion of Final Tests and punch-listing
Post-Integration Control Surfaces Adjustments	Within 90 days of Substantial Completion

## APPENDICES

## Section B -

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.

1.1 CONTRACTOR QUALIFICATIONS REQUIREMENTS

**Corporate Profile**

Location of Corporate Headquarters	
Number of Offices & Locations	
Location of Office Assigned to this Project	

**Corporate History**

Number of Years in Business	
Any Former Names of the Organization	
Date(s) of Incorporation	
State of Incorporation	
Officer Names & Addresses	

**Litigation Experiences (Last 5 Years)**

<b>Project Related</b>	
Nature of Litigation	
Plaintiff or Defendant	
Outcome	
<b>Non-Project Related</b>	
Nature of Litigation	
Plaintiff or Defendant	
Outcome	

**Financial**

Trade & Bank References (List 3)	
Dunn & Bradstreet Ranking	
Insurance Limits	
Name of Bonding Company	
Name & Address of Agent	
Maximum Bonding Capacity	
Current Bonding Capacity	
Performance Bond Ever Exercised?	

**APPENDICES**

**Section B -**

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.



**Staffing**

Total Number of Employees	
Number of Design Staff	
Number of Installation Staff	
Number of Project Management Staff	
Number of Software Programming Staff	

**Project Key Personnel**

Project Executive	
Project Manager	
Systems Engineer/Designer	
Lead Installer	
Control Systems Programmer	
Audio DSP Programmer	
Commissioning Agent	
Trainer	

**Project Executive Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience				
Length of Employment				
Certifications	<ul style="list-style-type: none"> <li><input type="checkbox"/> CTS</li> <li><input type="checkbox"/> CTS-D</li> <li><input type="checkbox"/> CTS-I</li> <li><input type="checkbox"/> RCDD</li> <li><input type="checkbox"/> PMP</li> <li><input type="checkbox"/> Certified Control System Programmer</li> <li><input type="checkbox"/> Certified DSP Programmer</li> <li><input type="checkbox"/> Others</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="width: 100%; height: 15px;"></td></tr> <tr><td style="width: 100%; height: 15px;"></td></tr> <tr><td style="width: 100%; height: 15px;"></td></tr> </table>			

APPENDICES

Section B - 7

This document is the property of The Sextant Group, Inc. University of South Carolina and its authorized representatives are hereby granted the use of this document for the specific project defined herein. This document may not be reproduced, in part or in whole, for any other use or for any other project without written consent of The Sextant Group, Inc. ©2018 The Sextant Group, Inc.



**Project Manager Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience*				
Length of Employment				
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>			

*\* The assigned Project Manager shall have at least 5 years experience with audiovisual projects of similar scope & scale.*



**Systems Engineer/Designer Resume**

Office Location	
Percentage of Individual's Time Allocated to this Project	
Work History	
Previous Project Experience*	
Length of Employment	
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div>
Creston DMC-E certification number and expiration date	

*\* The assigned Systems Engineer/Designer shall have at least 5 years experience with audiovisual projects of similar scope & scale.*

**Lead Installer Resume**

Office Location	
Percentage of Individual's Time Allocated to this Project	
Work History	
Previous Project Experience*	
Length of Employment	
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 10px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div>
AVIXA/InfoComm International CTS-I certification or NSCA EST-L2 (Electronic Systems Technician) certification, number and expiration date	
Creston DMC-T or DMC-E certification number and expiration date	



**Control Systems Programmer Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience*				
Length of Employment				
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <table border="1" data-bbox="743 1234 1349 1354" style="margin-left: auto; margin-right: auto;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>			
Crestron Certified Programmer, Extron Certified Control Specialist, certification number and expiration date				



**Audio DSP Programmer Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience*				
Length of Employment				
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <table border="1" data-bbox="737 1304 1344 1423" style="margin-left: auto; margin-right: auto;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>			
Audio DSP manufacturer certification number and expiration date				

**Commissioning Agent Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience				
Length of Employment				
Certifications	<input type="checkbox"/> CTS <input type="checkbox"/> CTS-D <input type="checkbox"/> CTS-I <input type="checkbox"/> RCDD <input type="checkbox"/> PMP <input type="checkbox"/> Certified Control System Programmer <input type="checkbox"/> Certified DSP Programmer <input type="checkbox"/> Others <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>			





**Trainer Resume**

Office Location				
Percentage of Individual's Time Allocated to this Project				
Work History				
Previous Project Experience				
Length of Employment				
Certifications	<ul style="list-style-type: none"> <li><input type="checkbox"/> CTS</li> <li><input type="checkbox"/> CTS-D</li> <li><input type="checkbox"/> CTS-I</li> <li><input type="checkbox"/> RCDD</li> <li><input type="checkbox"/> PMP</li> <li><input type="checkbox"/> Certified Control System Programmer</li> <li><input type="checkbox"/> Certified DSP Programmer</li> <li><input type="checkbox"/> Others</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto; width: 300px; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>			



**Resources**

Manufacturers' Line Card for products Company is an authorized distributor or dealer. Include authorization date	Provide this as an attachment
List of Manufacturers' Technical Certifications or Designations	
List of Manufacturers' for Whom the Company is an Authorized Service Center	Provide this as an attachment
List of Computer Software and/or Systems that Will Be Used on the Project	
List of Contractor Owned Test Equipment. Include Manufacturer, Model, and Software Version	

**References – Three Projects**

1. Project Reference 1:

Institute and Project Name	
Contact Name	
Phone Number	
E-Mail Address	
Similar Scope & Scale	
Similar Technology Application	
Project Costs	

2. Project Reference 2:

Institute and Project Name	
Contact Name	
Phone Number	
E-Mail Address	
Similar Scope & Scale	
Similar Technology Application	
Project Costs	

3. Project Reference 3:

Institute and Project Name	
Contact Name	
Phone Number	
E-Mail Address	
Similar Scope & Scale	
Similar Technology Application	
Project Costs	

<p>List Any Previous Projects with University of South Carolina, Compass 5 Partners, LLC, or The Sextant Group, Inc.,</p>	
---	--

1.2 SUBSTITUTION REQUEST FORM

- A. Bidders proposing product substitutions shall utilize this form. No verbal requests or phone communications shall be permitted during bid process.
- B. All substitution requests shall adhere to the procedures and policies defined herein.
- C. In addition to this form, all requests shall include drawings, performance and test data, and other information necessary to demonstrate that the substitution will meet all intentions of the Specification or required for a complete evaluation.
- ~~D.~~ All substitution requests shall be submitted to the [jbrookin@fmc.sc.edu](mailto:jbrookin@fmc.sc.edu)

Bidder \_\_\_\_\_

Name / Title \_\_\_\_\_

Date \_\_\_\_\_

E-mail Address \_\_\_\_\_

Phone \_\_\_\_\_

Drawing # \_\_\_\_\_

System Type/Item # \_\_\_\_\_

Originally Specified item: \_\_\_\_\_

Requested Substitution: \_\_\_\_\_

Description:

PROGRESS REPORT FORM

<b>Project Name:</b>	
<b>Date:</b>	
<b>From:</b>	

**Progress** (Tasks accomplished since the previous report; both completed tasks and work-in-progress.)

**Work Planned** (Tasks scheduled for the time period extending until the next report)

**Issues** (Factors delaying progress or have the potential to delay progress involving the Owner, Architect and/or Consultant.)



SYSTEMS PERFORMANCE VERIFICATION REQUEST FORM

<b>Contractor:</b>	
<b>Project:</b>	

The Contractor requests a Systems Performance Verification appointment by completing this form and returning it to Consultant. By signing below, the Contractor indicates that

1. The work on this contract, as defined in the Audiovisual Systems Specification, is complete and ready for the Consultant’s final Systems Performance Verification.
2. All required field tests have been performed and project documentation is on-site.
3. A computer/video signal generator or generators, capable of outputting all signal types included in the system designs, will be available onsite at the time of Systems Performance Verification.
4. Physical media (DVD, Blu-Ray disc, etc.) will be available onsite to verify the performance of all applicable source devices.

Any incomplete items, deviations, or exceptions to the requirements of the Audiovisual Systems Specification shall be listed by the Contractor below, or provided as an attachment:

If the Contractor’s work is found to be incomplete after the submission of this form, and subsequent visits to the site by the Contractor for corrective action are required, the Contractor will not charge the Owner for any travel costs, billable time, and all other related travel expenses required to complete the installation.

By signing below, Contractor verifies that the job site is ready for final Systems Performance Verification and accepts the conditions of this agreement.

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_

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

## BIDDING EQUIPMENT LISTS

Bidding Equipment Lists can be found on the following pages.

### 1.1 LIST OF BRAND SPECIFIC PRODUCTS

- A. Some manufacturer's names and product descriptions used in this specification are product specific with no substitutions allowed. The items listed as "Brand Specific" in this specification must be the manufacturer and type specified. The Brand Specific Products specified for this project include those by:
1. Crestron
  2. SVSI
  3. RGB Spectrum

### 1.2 KEYED BIDDING NOTES

- 1 - OFCI (Owner Furnished Contractor Installed)
- 2 - OFOI (Owner Furnished Owner Installed, or Provided by Others)
- 3 - Included with above package
- 4 - Coordinate stock color/finish with architect
- 5 - Custom painted. Coordinate with architect
- 6 - Field verify prior to submittals
- 7 - Special or noteworthy installation requirements – Refer to System Description for details

# University of South Carolina

## William Brice Building School of Nursing 409 Renovation

Audiovisual Systems					
Bidding Equipment List					
ID	Manufacturer	Model	Item / Description	Unit Qty	Bidding Notes
<b>Display Devices</b>					
1	NEC	E905	90" Commercial LED LCD Flat Panel Display w/ speakers	12	
2	Chief	XSM1U	X-Large Fusion Micro Adjustable Fixed Wall Mount for 55" - 95" Display	12	
<b>Source Devices</b>					
3	Extron	ShareLink 250	Solid State Wireless Collaboration Receiver	13	
4	Extron	WPD 110 A	Single Decora Plate w/ HDMI	12	4
5	Generic	SFF Computer+Mon.	Small Form Factor PC w/ Monitor (OFCI)	1	1
6	Middle Atlantic	RC-3	3RU Rack Mount Kit w/Clamping Bars	1	
7	Wolfvision	VZ3	2MP, 1080p Document/Object Camera	1	
8	Extron	Cable Cubby 1200	Cable Cubby 1200 Recessed Table Box	1	4
9	Extron	70-454-12	Single AAP Dual USB Passthrough Plate - Black	1	4
10	Extron	70-1076-22	Duoble AAP HDMI, VGA+Audio, Display Port Passtrough Plate - Black	1	4
11	Extron	RGB-HDMI 300A	RGB to HDMI Converter	1	
12	Liberty	DL-ADR	Five HDMI Adapter Ring	1	
<b>Signal Processing, Routing, and Distribution</b>					
13	Crestron	DM-NVX-350	Digital Media 4K Nework AV Video Encoder/Decoder	25	
14	D-Link	DGS-1210-52MP	52 Port Gigabit PoE Switch	1	
<b>Media Capture &amp; Conferencing</b>					
15	Vaddio	999-9943-000W	Roboshot 30, 1080p PTZ HDMI Camera, 30x Zoom Lens w/ Wall Mount Bracket	4	4
16	Vaddio	999-82000-000	Universal Suspended Ceiling Mount Camera	2	4
17	Vaddio	AV Bridge	Audio-Video USB Bridge	1	7
18	Extron	SMP 351	Streaming Media Processor & Capture Device	1	7
<b>Speech &amp; Audio System</b>					
19	Shure	ULXD14/85UHF	Lavalier Wireless Microphone System Including:	1	
20	Shure	(1) ULXD1	Included: (1) Bodypack Transmitter	1	
21	Shure	(1) ULXD4	Included: (1) Professional Diversity Receiver	1	
22	Shure	(1) RMK	Included: (1) Single Rack Mount Kit	1	
23	Shure	(1) WL185	Included: (1) Microflex Cardioid Lavalier Microphone	1	
24	Shure	ULXD24/85UHF	Handheld Wireless Microphone System Including:	1	
25	Shure	(1) ULXD2	Included: (1) Handheld Transmitter	1	
26	Shure	(1) ULXD4	Included: (1) Professional Diversity Receiver	1	
27	Shure	(1) RMK	Included: (1) Single Rack Mount Kit	1	
28	Shure	SBC200-US	Dual Docking Transmitter Charging Station	1	
29	Shure	SB900	Lithium Ion Rechargeable Battery	2	
30	Shure	UA830X	Wideband Active RF Antenna Amplfier	2	
31	Earthworks	FM500	19" Gooseneck Microphone w/ Cardioid Capsule	1	
32	Earthworks	PPM	Shock Mount for FM500 Microphone	1	
33	Audix	M55W	Hanging Ceiling Microphone w/ Cardioid Capsule	2	4
<b>Audio Reinforcement</b>					
34	QSC	AD-6CT	6" Dual Concentric Recessed Ceiling Mounted Loudspeaker	16	4
35	QSC	AD-P6T	6" Dual Concentric Pendant Ceiling Mounted Loudspeaker	12	4
36	Symetrix	Prism 12x12	12 AEC mic/line In x 12 mic/line Out x 8 USB Audio DSP	1	
37	Lab Gruppen	C 10:4X	250W/Ch. @4ohm/70V 4 Channel Audio Power Amplifier	1	
38	Listen Technologies	LT-82	Stationary IR Transmitter	1	
39	Listen Technologies	LA-326	Rack Mount Bracket Kit for Single or Dual LT-82	1	
40	Listen Technologies	LA-140-GY	Stationary IR Radiator, Grey	2	
41	Listen Technologies	LR-5200-IR-P1	Advanced Receiver Package	6	
42	Listen Technologies	LA-364	NiMH Rechargeable Battery Pack	6	
43	Listen Technologies	LA-304	Assistive Listening Notification Signage Kit	1	
44	Listen Technologies	LA-350	8-Unit Charging/Storage Station	1	
<b>Control System</b>					
45	Crestron	TSW-760-W-S	7" High-Definition Integrated Touchpanel Display	1	4
46	Crestron	TSS-752-W-S	7" Room Scheduling Touch Screen	2	4
47	Crestron	C2N-DB8B	8-Button Single-Gang Keypad	7	4
48	Crestron	PRO3	Large Series 3 Control System Processor	1	

# University of South Carolina

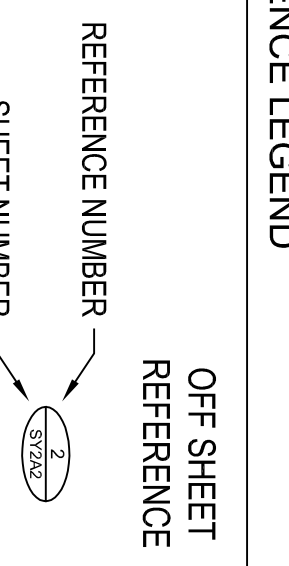
## William Brice Building School of Nursing 409 Renovation

Audiovisual Systems					
Bidding Equipment List					
ID	Manufacturer	Model	Item / Description	Unit Qty	Bidding Notes
<b>Patching</b>					
49	Panduit	CP48WSBLY	48-Port Flat Shielded Patch Panel, Black	1	
50	Panduit	CP24WSK6TGLGY	Category 6 Shielded Jack Module	48	
51	Panduit	UTPCH3	3 ft Cat5e Patch Cable	48	
52	Middle Atlantic	PHCM-2-3-P4	Horizontal Plastic Cable Manager, 2RU	2	
<b>Rack, Panels, Misc.</b>					
53	Middle Atlantic	VFD-40	Vented Locking Front Door	1	
54	Middle Atlantic	SPN-40-312	Universal Side Panels (Pair)	1	
55	Middle Atlantic	BR2	Brush Grommet Panel, 2RU	6	
56	Middle Atlantic	HSK	Square Post Security Rack Screws (100 pcs)	1	
57	Middle Atlantic	SPBIT	Security Square Post Drive Bit	1	
58	Middle Atlantic	LACE	Vertical Lacer Strip (6 pcs)	1	
59	Middle Atlantic	LBP-1A	"L" Shaped Lacing Bar (10 pack)	1	
60	Middle Atlantic	PDT-2020C-NS	20-Outlet 20A Pwr Strip w 12 5-20 NEMA Receptacles & plug	2	
61	Marshall Furniture	TBD	Custom Instructor's Lectern	1	4, 7
62	Izzy+	Buddy Lectern	Mobile Lectern w/ Hydraulic Lift	1	4, 7
63	Middle Atlantic	PD-915R-2	2 Switched, 6 Unswitched Rack mount Power Dist.	1	
64			Installation Materials as Defined in AV Systems Specification	Lot	
65			Pre-Made Loose Cabling-Length as Needed	Lot	
66			Rack Panels, Vents, Mounts, Shelves, Other Equipment Rack Materials as Needed	Lot	
67			Cable Terminations, Cable Dressing, Labels, Ties, Cable Management as Needed	Lot	
68			Installation Materials as Defined in AV Systems Specification	Lot	

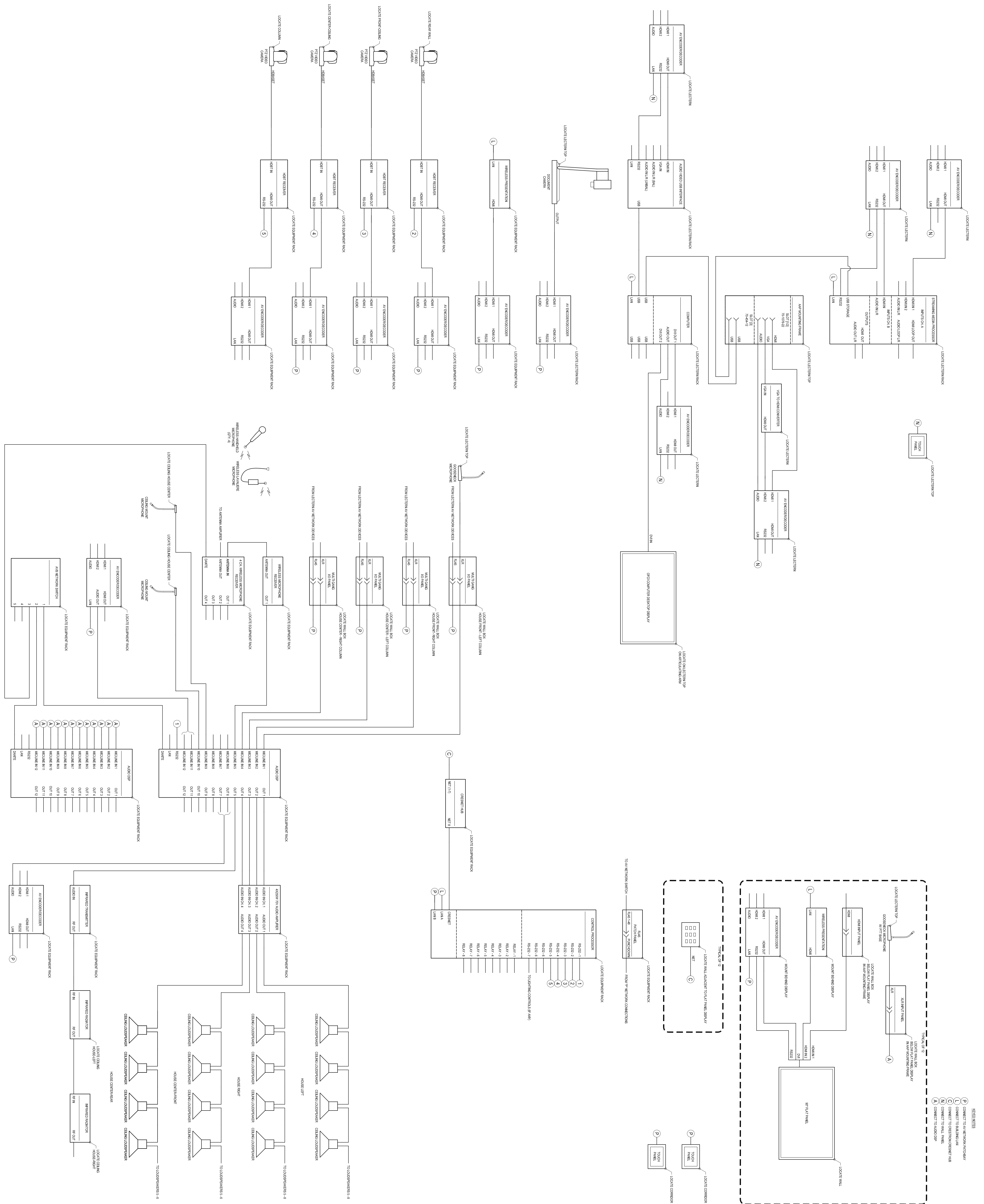
# UNIVERSITY OF SOUTH CAROLINA SCHOOL OF NURSING ROOM 409

## DRAWING INDEX

AUDIOVISUAL SYSTEMS DRAWINGS		AUDIOVISUAL REFERENCE DRAWINGS	
NUMBER	DESCRIPTION	NUMBER	DESCRIPTION
SY00	AUDIOVISUAL SYSTEM COVER SHEET	AV101-1	AUDIOVISUAL EQUIPMENT PLAN FURNITURE OPTION 1
SV01	AUDIOVISUAL SYSTEM SIGNAL FLOW DRAWING	AV101-2	AUDIOVISUAL EQUIPMENT PLAN FURNITURE OPTION 2
		T001	TECHNOLOGY INFRASTRUCTURE LEGENDS AND SYMBOLS
		T101	TECHNOLOGY INFRASTRUCTURE FLOOR PLAN
		T121	TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN
		T191-1	TELECOM PLAN FURNITURE OPTION 1
		T191-2	TELECOM PLAN FURNITURE OPTION 2
		T201	TECHNOLOGY INFRASTRUCTURE ELEVATIONS
		T301	TECHNOLOGY INFRASTRUCTURE ROOM RISERS
		T401	TECHNOLOGY INFRASTRUCTURE DETAILS

CROSS-REFERENCE LEGEND	
ON SHEET REFERENCE	OFF SHEET REFERENCE
①	







**TECHNOLOGY JUNCTION BOX LEGEND**

TYPE	FUNCTION	ENCLOSURE DIMENSIONS	ENCLOSURE DESCRIPTION	ENCLOSURE MAKE & MODEL	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES			
FBI	FLOOR	AV POWER & DATA FLOOR BOX	10"	12"	6"	FLOOR BOX W/ POWER & DATA	F5R FL-540R-520R-6	FLUSH WITH FINISHED FLOOR	17/401	B
J1	WALL	AV I/O PANEL - MEDIUM	4-11/16"	10-7/16"	2-1/8"	PULL BOX W/RAISED FOUR-DEVICE COVER	RACO 943	18" AFF - FLUSH	-	C
J2	WALL	AV CONTROL PANEL	4-11/16"	10-7/16"	2-1/8"	PULL BOX W/RAISED ONE-DEVICE COVER	RACO 943	48" AFF - FLUSH	-	C
J3	WALL	AV ROOM SCHEDULER	4-11/16"	10-7/16"	2-1/8"	PULL BOX W/RAISED THREE-DEVICE COVER	RACO 268, 259 OR 265	48" AFF - FLUSH	-	C
J4	WALL	AV FLAT PANEL DISPLAY WALL BOX ASSEMBLY	10-15/16"	7-3/8"	3-9/16"	WALL BOX W/ POWER & DATA	F5R PWR-250	66" AFF - FLUSH (UNLESS OTHERWISE INDICATED)	23/401	D
J5	WALL	AV CAMERA	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/RAISED TWO-DEVICE COVER	RACO 268, 259 OR 265	82" AFF - FLUSH (UNLESS OTHERWISE INDICATED)	-	C
J6	CEILING	AV LOUDSPEAKER PULL BOX	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/ BLANK COVER	RACO 268, 259 OR 265	MOUNT TO STRUCTURE	-	-
J7	CEILING	AV DEVICE PULL BOX	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/ BLANK COVER	RACO 268, 259 OR 265	MOUNT TO STRUCTURE	-	-
J8	CEILING	AV CAMERA	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/ BLANK COVER	RACO 268, 259 OR 265	MOUNT TO STRUCTURE	-	-
J9	CEILING	SECURITY CAMERA	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/ BLANK COVER	RACO 268, 259 OR 265	18" ABOVE LAVA IN CEILING	-	-

**TECHNOLOGY NETWORK JUNCTION BOX LEGEND**

TYPE	FUNCTION	ENCLOSURE DIMENSIONS	ENCLOSURE DESCRIPTION	ENCLOSURE MAKE & MODEL	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES			
M1	FLOOR	AV NETWORK / NETWORK OUTLET - FLOOR	-	-	-	FLOOR BOX INDICATED BY #NUMBER	COORDINATE W/ASSOCIATED FLOOR BOX	INSTALL IN FLOOR BOX PER MANUFACTURER DIRECTIONS	17/401	B-E
N2	WALL	AV NETWORK / NETWORK OUTLET - STANDARD	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/RAISED SINGLE-DEVICE COVER	RACO 268, 259 OR 265	18" AFF - FLUSH (UNLESS OTHERWISE INDICATED)	-	E
N3	WALL	AV NETWORK OUTLET - CONTROL PANEL / ROOM SCHEDULER	-	-	-	WALL BOX INDICATED BY #NUMBER	SEE 12, J3	SEE 12, J3	-	E
M4	WALL	AV NETWORK OUTLET - FLAT PANEL DISPLAY	3"	2"	2-1/2"	SINGLE GANG SWITCH BOX	RACO 991	ATTACH TO J4	23/401	D-E
N5	-	AV NETWORK / NETWORK OUTLET - CAMERA	-	-	-	WALL BOX INDICATED BY #NUMBER	SEE 15, 18, J9	SEE 15, 18, J9	-	C-E
N6	CEILING	NETWORK OUTLET - WAP	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/RAISED SINGLE-DEVICE COVER	RACO 268, 259 OR 265	MOUNT TO UNDERSIDE OF CABLE BASKET	-	C-E
N7	CEILING	NETWORK OUTLET - WAP	4-11/16"	4-11/16"	2-1/8"	PULL BOX W/RAISED SINGLE-DEVICE COVER	RACO 268, 259 OR 265	18" ABOVE LAVA IN CEILING	-	C-E

**TECHNOLOGY POWER LEGEND**

TYPE	FUNCTION	VOLTS	AMPS	NEMA	DESCRIPTION	ADDITIONAL REQUIREMENTS	MOUNTING STYLE	REFERENCE DETAIL	LEGEND NOTES
P1	FLOOR	120V	20A	5-20R	DEDICATED DUPLEX RECEPTACLE INSIDE FLOOR BOX	DEDICATED CIRCUIT	COORDINATE WITH FLOOR BOX	17/401	A
P2	WALL	120V	20A	5-20R	SHARED DUPLEX RECEPTACLE	SHARED CIRCUIT	18" AFF - FLUSH (UNLESS OTHERWISE INDICATED)	-	A
P3	WALL	120V	20A	5-20R	SHARED DUPLEX RECEPTACLE	SHARED CIRCUIT	COORDINATE WITH FLAT PANEL DISPLAY WALL BOX	23/401	A-D
P4	WALL	240V	20A	L14-20P	DEDICATED TWIST LOCK RECEPTACLE	DEDICATED CIRCUITS	MOUNT TO SIDE OF CABLE BASKET	-	A
P5	WALL	240V	20A	BL-20R	TWIST LOCK RECEPTACLE	-	MOUNT TO SIDE OF CABLE BASKET	-	A

**TECHNOLOGY SYMBOLS LEGEND**

**CONDUIT** - REFERS TO PLANS FOR SIZE

**FLOOR CONDUIT STUB** - REFERS TO PLANS FOR SIZE

**JUNCTION WALL BOX** - CEILING RECESSED LOUDSPEAKER - SHOWN FOR COORDINATION PURPOSES ONLY

**NETWORK CEILING BOX** - CEILING - DROP IN PUBLIC ADDRESS SPEAKER

**NETWORK FLOOR BOX** - RECESSED PUBLIC ADDRESS SPEAKER

**NETWORK WALL BOX** - SURFACE MOUNT PUBLIC ADDRESS SPEAKER

**NETWORK CEILING BOX** - SURFACE MOUNT PUBLIC ADDRESS SPEAKER

**FLOOR POWER DUPLEX RECEPTACLE** - CEILING POWER DUPLEX RECEPTACLE

**FLOOR POWER DBL-DUPLEX RECEPTACLE** - CEILING POWER DBL-DUPLEX RECEPTACLE

**WALL POWER CIRCUIT** - WALL POWER DBL-DUPLEX RECEPTACLE

**WALL POWER DUPLEX RECEPTACLE** - WALL POWER DBL-DUPLEX RECEPTACLE

**WALL POWER DBL-DUPLEX RECEPTACLE** - WALL POWER DBL-DUPLEX RECEPTACLE

**CONDUIT DESIGNATES**

**SYMBOL DESIGNATES**

**FLOOR, WALL OR CEILING**

**CONDUIT RISER**

**DETAIL # / SHEET #**

**CONDUIT RISER**

**DETAIL # / SHEET #**

**ELEVATION SYMBOL**

**DETAIL # / SHEET #**

**SECTION SYMBOL**

**DETAIL # / SHEET #**

**NUMBER DESIGNATES**

**DISPLAY TYPE**

**SEE THE DISPLAY TYPE LEGEND FOR MORE INFORMATION**

**TELECOMMUNICATIONS CABLING LEGEND**

TYPE	CABLING	REFERENCE DETAIL
A	(1) CAT6 - AV NETWORK	-
B	(2) CAT6 - AV NETWORK	-
C	(4) CAT6 - AV NETWORK	-
D	(1) CAT6 - NETWORK	-
E	(2) CAT6 - NETWORK	-
F	(4) CAT6 - NETWORK	-

**DISPLAY TYPE LEGEND**

ALL DIMENSIONS IN INCHES / WEIGHT IN POUNDS

TYPE	IMAGE DIMENSIONAL	NOMINAL GASE SIZE	NOMINAL WEIGHT (LBS)	BACKING HEIGHT	BACKING WIDTH	MOUNTING HEIGHT AFF (BOTTOM OF DISPLAY)
1	90"	48"	188	48"	72"	54"
2	90"	48"	188	48"	72"	48"

**NOTES:**

1. BACKING / JUNCTION BOXES CONDUIT AND ELECTRICAL BY G.C.

2. DISPLAY AND MOUNT PROVIDED BY THE AUDIOVISUAL SYSTEMS CONTRACTOR.

**LEGEND NOTES**

- (A) POWER RECEPTACLES FOR AUDIOVISUAL AND IT SYSTEMS
- (B) TECHNICAL POWER RECEPTACLES INCLUDING THOSE WITHIN FLOOR BOXES, WALL BOXES, OR CEILING BOXES, ARE PROVIDED BY ELECTRICAL AND APPEAR ON THE ELECTRICAL DRAWINGS. THE TECHNICAL POWER RECEPTACLES ALSO APPEAR ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS FOR COORDINATION PURPOSES AS THE LOCATION OF TECHNICAL POWER RECEPTACLES IN RELATION TO OTHER TECHNOLOGY INFRASTRUCTURE MAY BE DIFFERENT. REFER TO THE ELECTRICAL DRAWINGS FOR COMPLETE POWER LAYOUTS AND REQUIRING DETAILS.
- (C) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (D) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (E) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (F) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (G) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (H) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (I) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (J) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (K) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (L) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (M) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (N) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (O) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (P) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (Q) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (R) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (S) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (T) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (U) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (V) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (W) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (X) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (Y) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX
- (Z) FBI (N1) P1 6" DEEP 2-GANG RAISED ACCESS FLOOR BOX

**GENERAL NOTES**

- 1. PROVIDE THROUGH-PENETRATION FIRE STOP SYSTEMS TO PREVENT THE SPREAD OF FIRE THROUGH OPENINGS MADE IN FIRE-RATED WALLS OR FLOORS TO ACCOMMODATE PENETRATING ITEMS SUCH AS CONDUIT, CABLE TRAY AND CABLE RACKWAYS. FIRE STOP SHALL RESTORE FLOOR AND WALL TO ORIGINAL FIRE RATED INTEGRITY AND SHALL BE VAPORPROOF. THE FIRE STOP SYSTEMS AND PRODUCTS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH UL PROCEDURES AND MATERIALS SHALL BE UL CLASSIFIED AS MATERIALS FOR USE IN THROUGH-PENETRATION FIRE STOPS.
- 2. THE FIRE STOP SYSTEM SHALL COMPLY WITH THE IRC, IBC AND WITH VERA 101-111 SAFETY CODE (LATEST EDITION) AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE LOCAL INSPECTION AUTHORITIES PRIOR TO CABLE SYSTEM ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FIRE RATING OF ALL WALLS AND FLOORS HAVING CABLING PENETRATIONS. COORDINATE SEAMLESS INSTALLATION WITH WORK OF OTHER TRADES. REFER TO GENERAL AND/OR ELECTRICAL SPECIFICATION SECTIONS FOR FURTHER MATERIAL AND INSTALLATION PARAMETERS. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR ON SITE.
- 3. FIRE STOP SYSTEMS SHALL BE UL CLASSIFIED TO ASTM E814 (UL-1479) AND SHALL BE APPROVED BY A QUALIFIED PROFESSIONAL ENGINEER (P.E.), LICENSED IN THE STATE WHERE THE WORK IS TO BE PERFORMED. A DRAWING SHOWING THE PROPOSED FIRE STOP SYSTEM STAMPED/EMBOSSED BY THE P.E. SHALL BE PROVIDED TO THE OWNER'S TECHNICAL REPRESENTATIVE PRIOR TO INSTALLING THE FIRE STOP SYSTEMS.

**THE SEXTANT GROUP**

315 W PONCE DE LEON AVE  
SUITE 475  
DECATUR, GA 30030  
404.371.8080

AUDIOVISUAL • IT CONSULTANT

University of South Carolina  
William Brice Building  
School of Nursing 409 Renovation  
Columbia, SC

©2018 Compass 5 Partners, LLC  
18USC01  
Project Number:

**KEY PLAN**

NTS

AREA OF WORK

For Bidding: 02-14-18  
Technology Infrastructure LEGENDS AND SYMBOLS  
Date: 02-14-18  
Drawn: JMV  
Checked: JP

T001

**CTS&D**

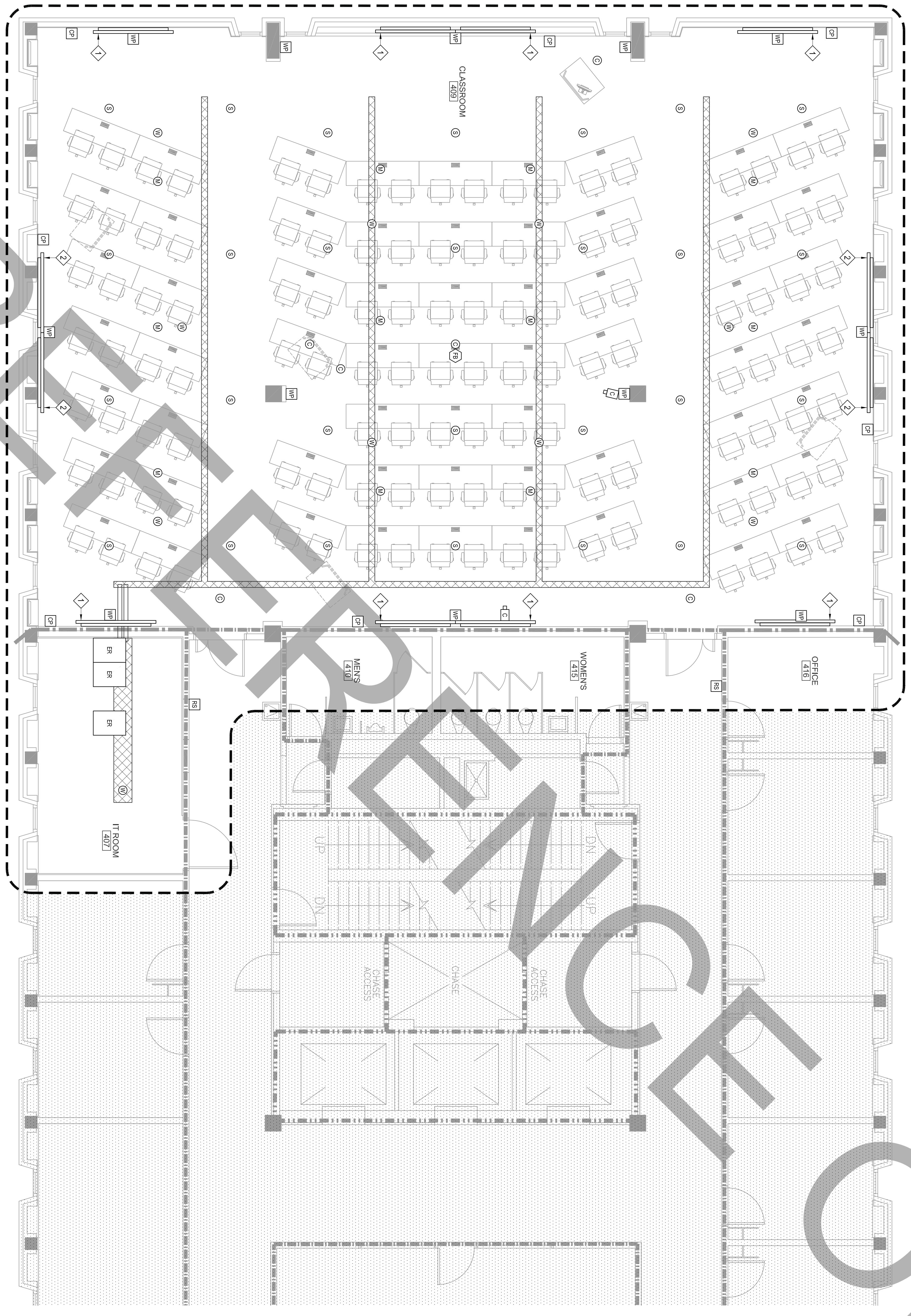
Certified Technology Specialist-Design

Travis Smith  
#2329900  
Expires: 01/31/2020  
Member: International Brotherhood of Electrical Workers



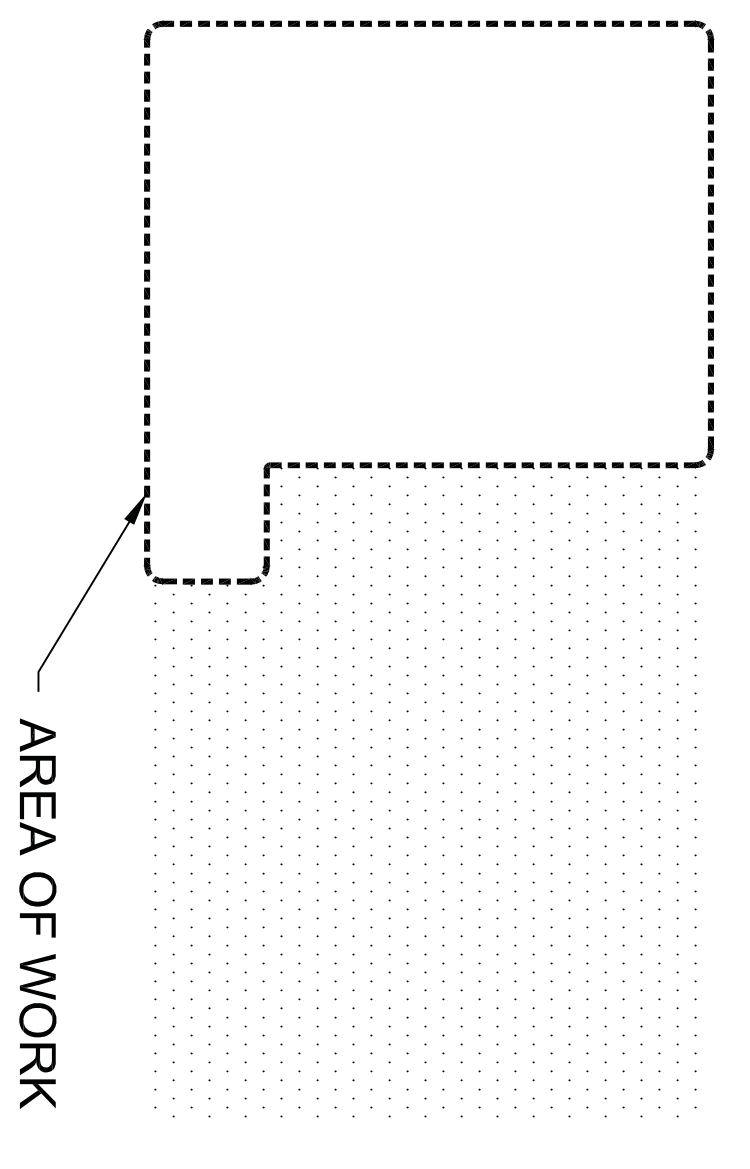
SCALE: 1/4"=1'-0"

AUDIOVISUAL EQUIPMENT PLAN - FURNITURE OPTION 1



	FLOOR BOX
	CONTROL PANEL
	ROOM SCHEDULER
	WALL PLATE
	CAMERA - WALL MOUNTED
	EQUIPMENT RACK
	CAMERA - CEILING MOUNTED
	MICROPHONE - CEILING MOUNTED
	LOUDSPEAKER - CEILING MOUNTED
	WAP - CEILING MOUNTED
	CABLE BASKET - SEE PLANS FOR SIZE
	DISPLAY TYPE - SEE DISPLAY TYPE LEGEND FOR MORE INFORMATION.
	FLAT PANEL DISPLAY

KEY PLAN  
NTS



Project Number:	18USC01
For Bidding:	02-14-18
Date:	02-14-18
Drawn:	JWV
Checked:	JP
Project Name:	AV101-1
Project Description:	AUDIOVISUAL EQUIPMENT PLAN FURNITURE OPTION 1

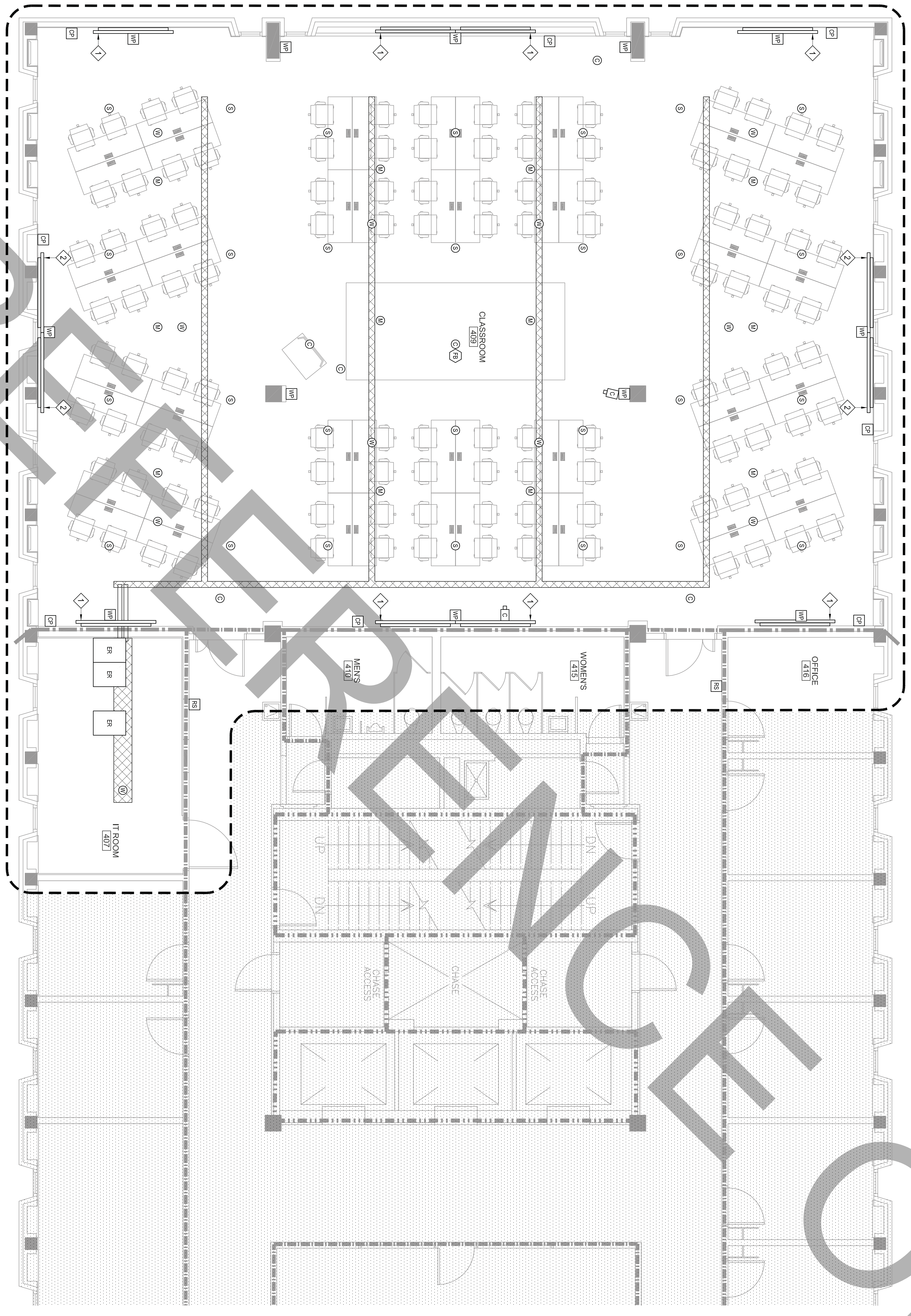
**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080  
  
 AUDIOVISUAL • IT CONSULTANT

**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

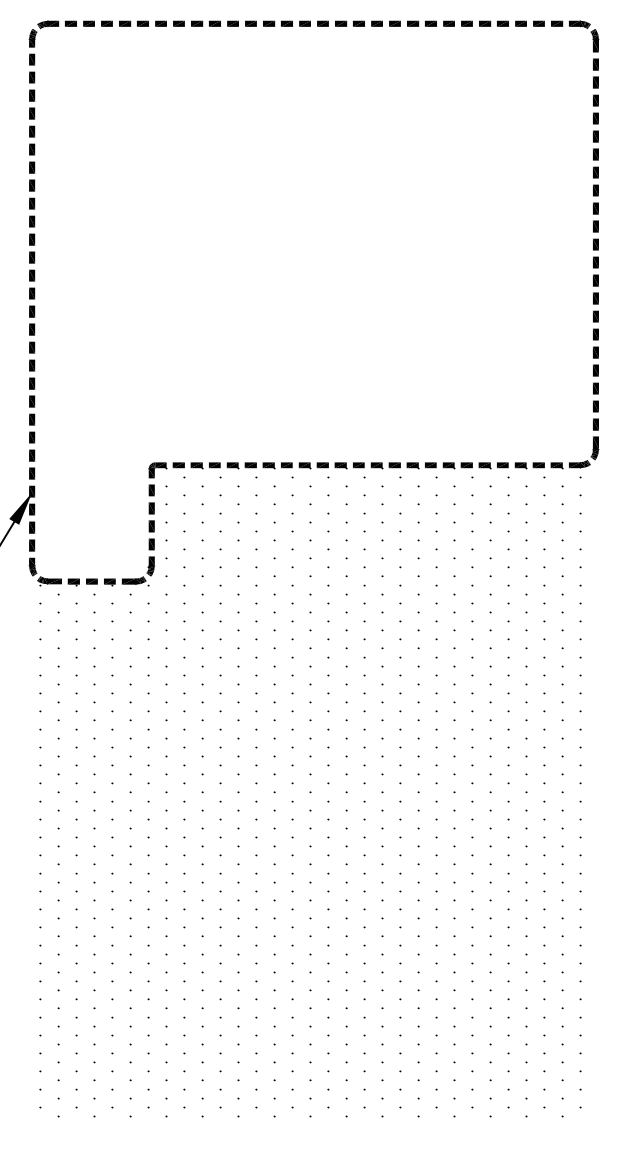


AUDIOVISUAL EQUIPMENT PLAN - FURNITURE OPTION 2  
SCALE: 1/4"=1'-0"



	FLOOR BOX
	CONTROL PANEL
	ROOM SCHEDULER
	WALL PLATE
	EQUIPMENT RACK
	CAMERA - WALL MOUNTED
	CAMERA - CEILING MOUNTED
	MICROPHONE - CEILING MOUNTED
	LOUDSPEAKER - CEILING MOUNTED
	WAP - CEILING MOUNTED
	CABLE BASKET - SEE PLANS FOR SIZE
	DISPLAY TYPE - SEE DISPLAY TYPE LEGEND FOR MORE INFORMATION.
	FLAT PANEL DISPLAY

KEY PLAN  
NTS



AREA OF WORK



Project Number:	18USC01
For Bidding:	02-14-18
Date:	02-14-18
Drawn:	JWV
Checked:	JP
Project Name:	AV101-2
Project Location:	AV101-2

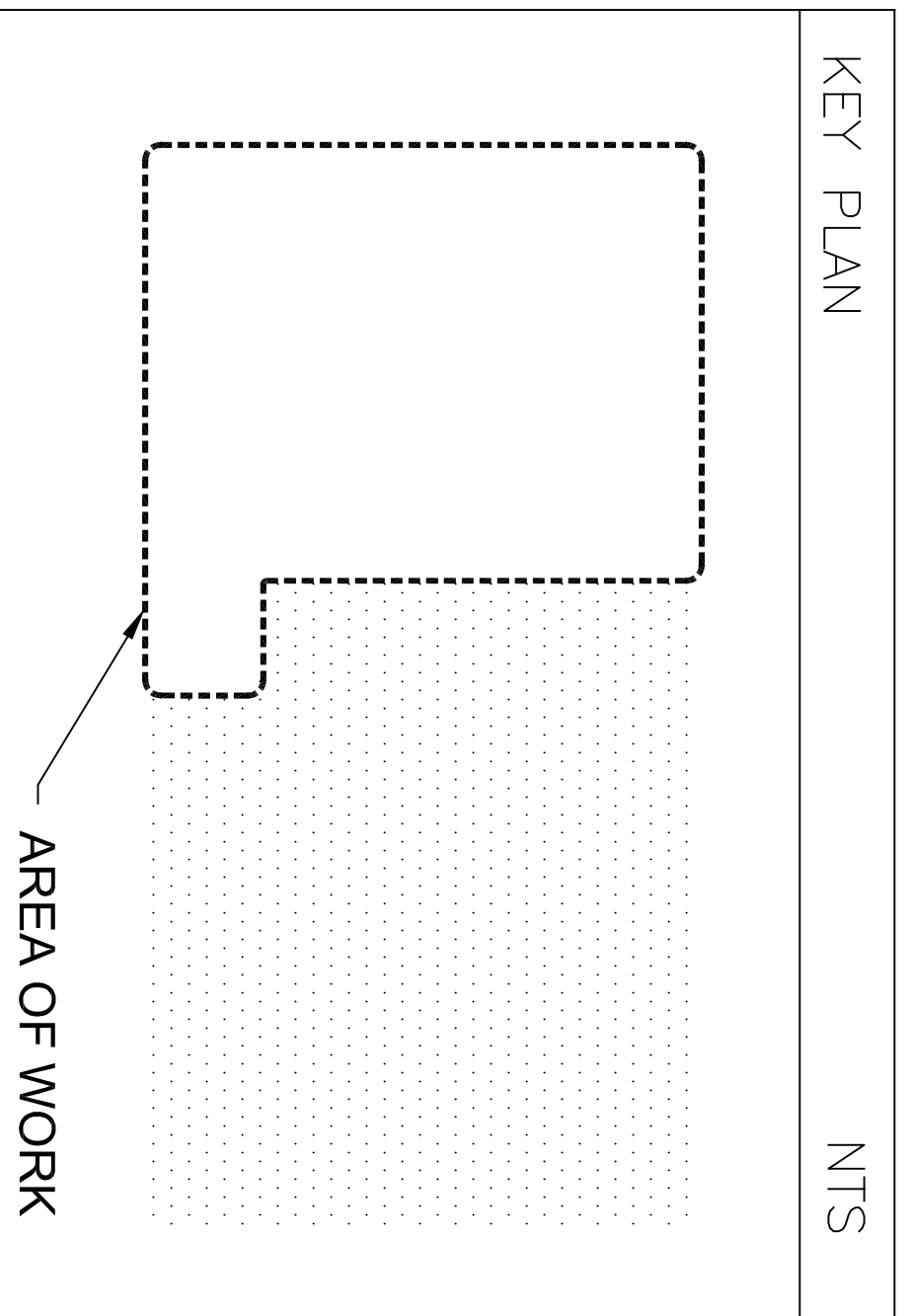
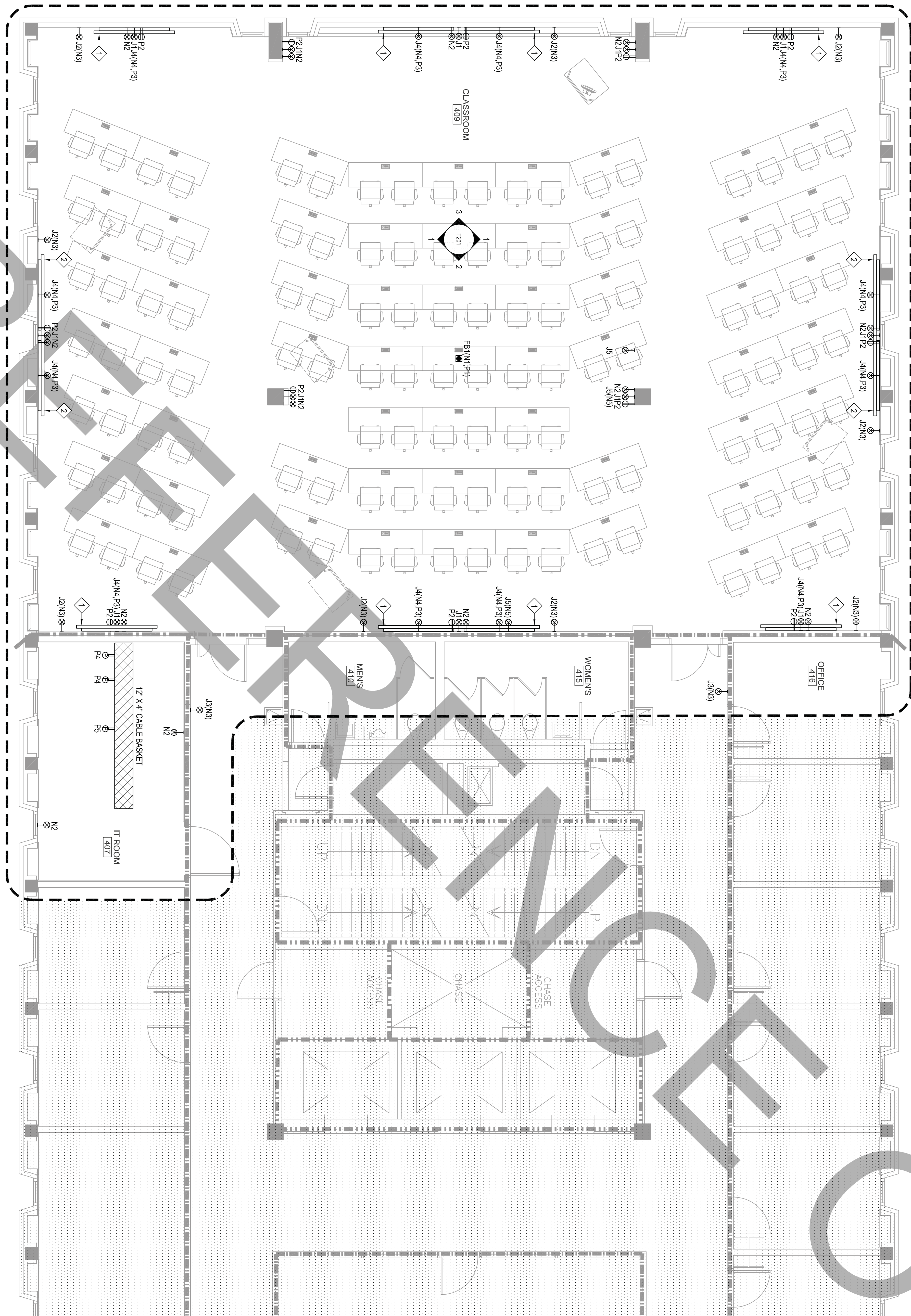
**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080  
  
 AUDIOVISUAL • IT CONSULTANT

**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com



TECHNOLOGY INFRASTRUCTURE FLOOR PLAN  
SCALE: 1/4"=1'-0"



For Bidding	02-14-18
DATE	02-14-18
DRAWN	JWV
CHECKED	JP
PROJECT NUMBER	18USC01
PROJECT NAME	© 2018 Compass 5 Partners, LLC

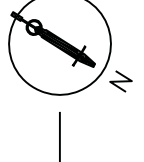

**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080  
  
 AUDIOVISUAL • IT CONSULTANT

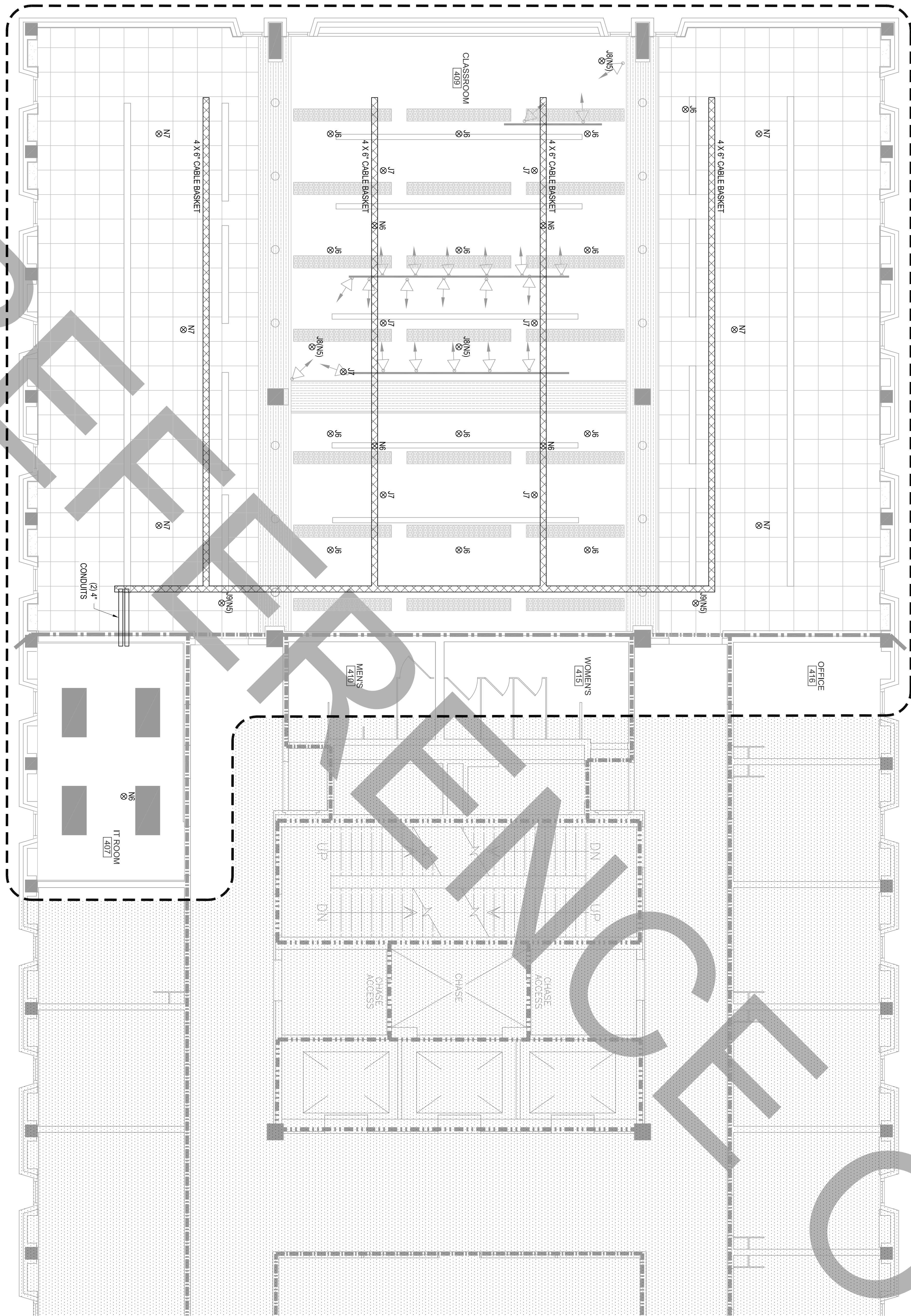

**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

ONLY



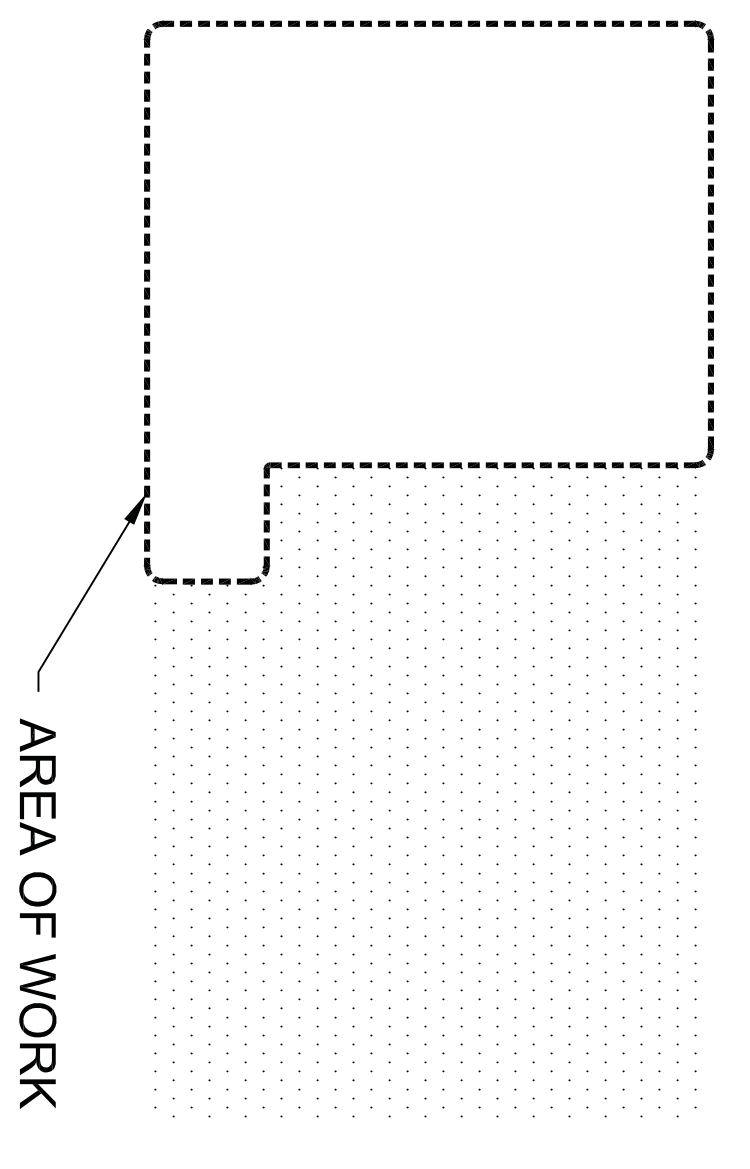


TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN  
SCALE: 1/4"=1'-0"



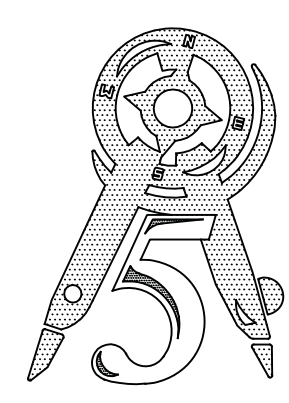
KEY PLAN

NTS



University of South Carolina  
William Brice Building  
School of Nursing 409 Renovation  
Columbia, SC

**THE SEXTANT GROUP, INC.**  
315 W PONCE DE LEON AVE  
SUITE 475  
DECATUR, GA 30030  
404.371.8080



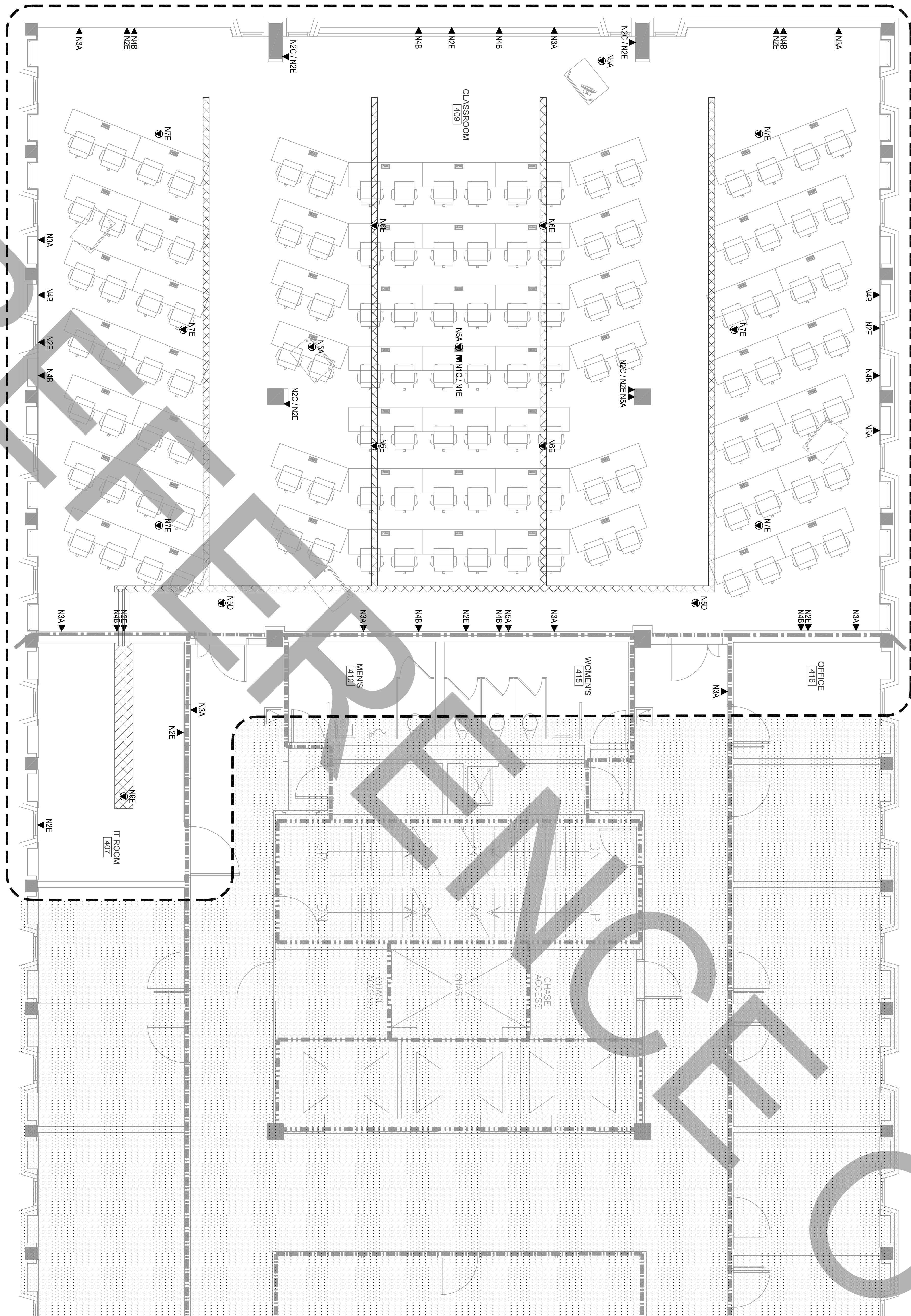
**Compass 5 Partners, LLC**  
1329 State Street Cayce, SC 29033  
803 765 0838 compass5partners.com

For Bidding	02-14-18
TECHNOLOGY INFRASTRUCTURE REFLECTED CEILING PLAN	
Date:	02.14.18
Drawn:	JWV
Checked:	JP
Project Number:	18USC01
©2018 Compass 5 Partners, LLC	
T121	

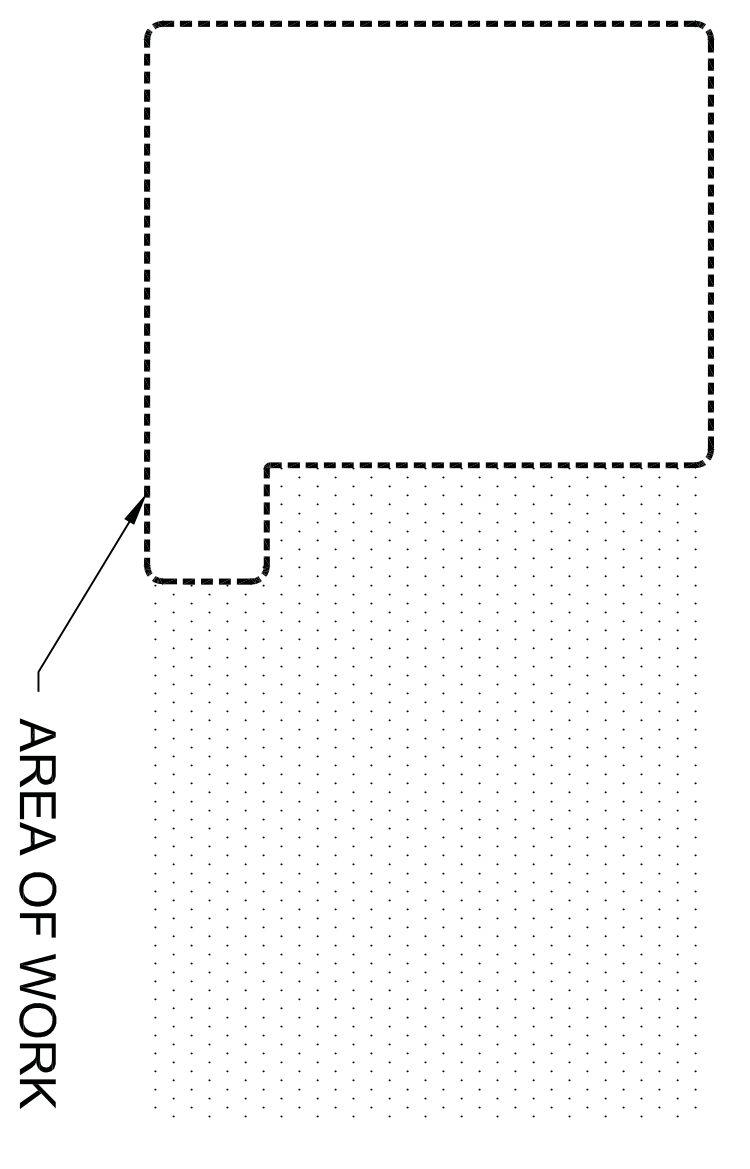
ONLY



TELECOM PLAN - FURNITURE OPTION 1  
SCALE: 1/4"=1'-0"



KEY PLAN  
NTS



Date:	02.14.18
Drawn:	JWV
Checked:	JP
Project Number:	18USC01
For Bidding:	02-14-18
TELECOM PLAN FURNITURE OPTION 1	T131-1


**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

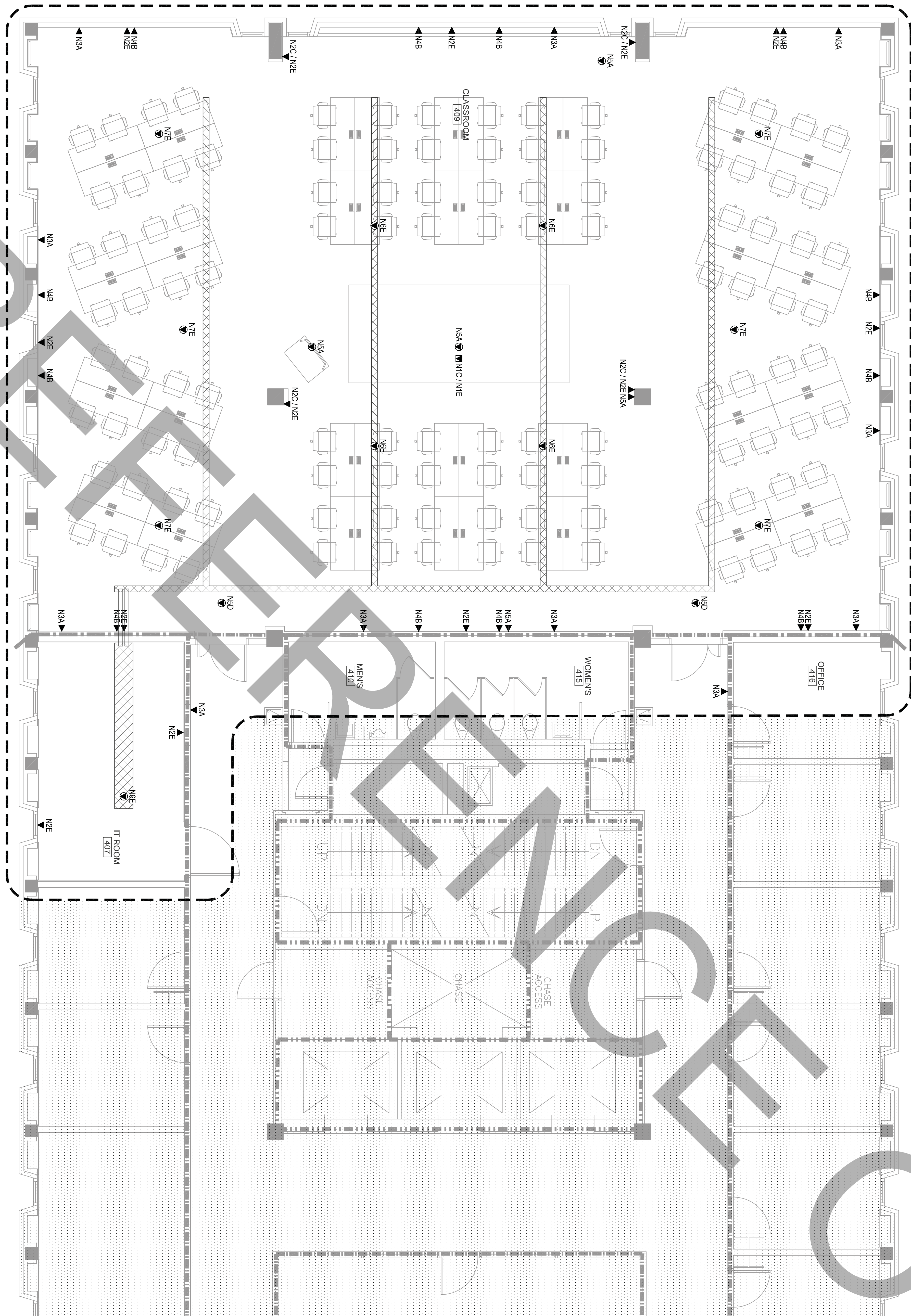
**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080  
  
 AUDIOVISUAL • IT CONSULTANT


**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

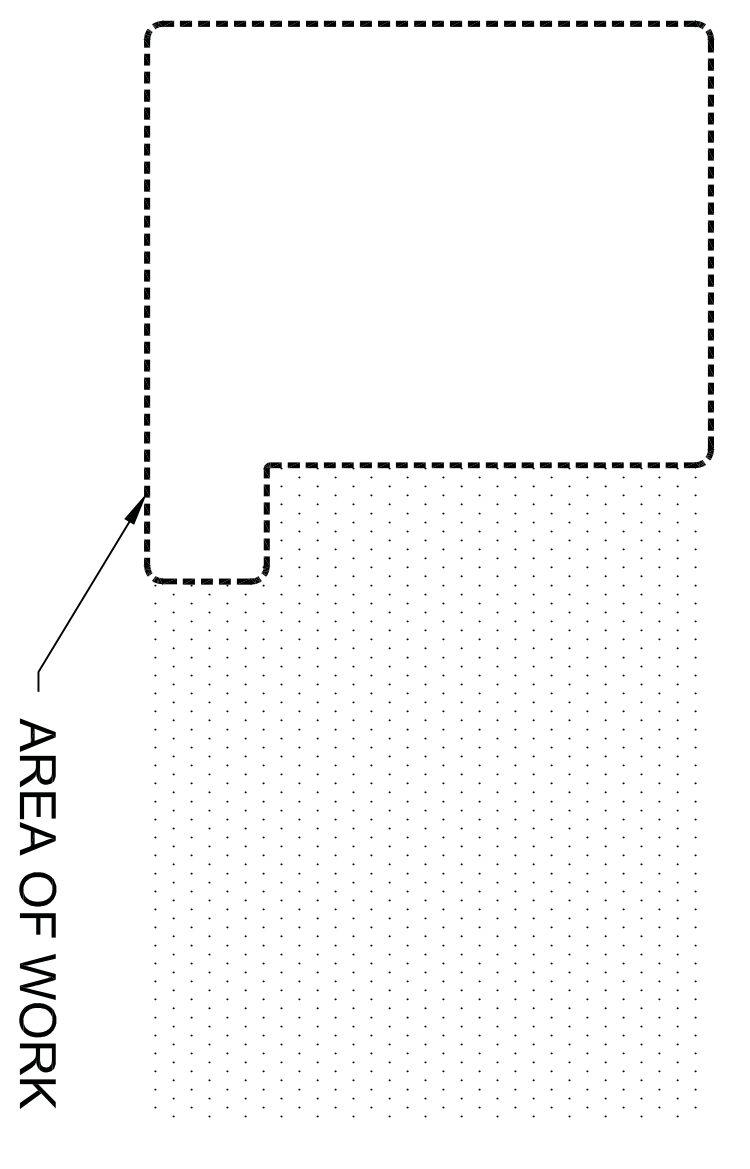
ONLY



TELECOM PLAN - FURNITURE OPTION 2  
SCALE: 1/4"=1'-0"



KEY PLAN  
NTS



Date:	02.14.18
Drawn:	JWV
Checked:	JP
Project Number:	18USC01
For Bidding:	02-14-18
TELECOM PLAN FURNITURE OPTION 2	T131-2

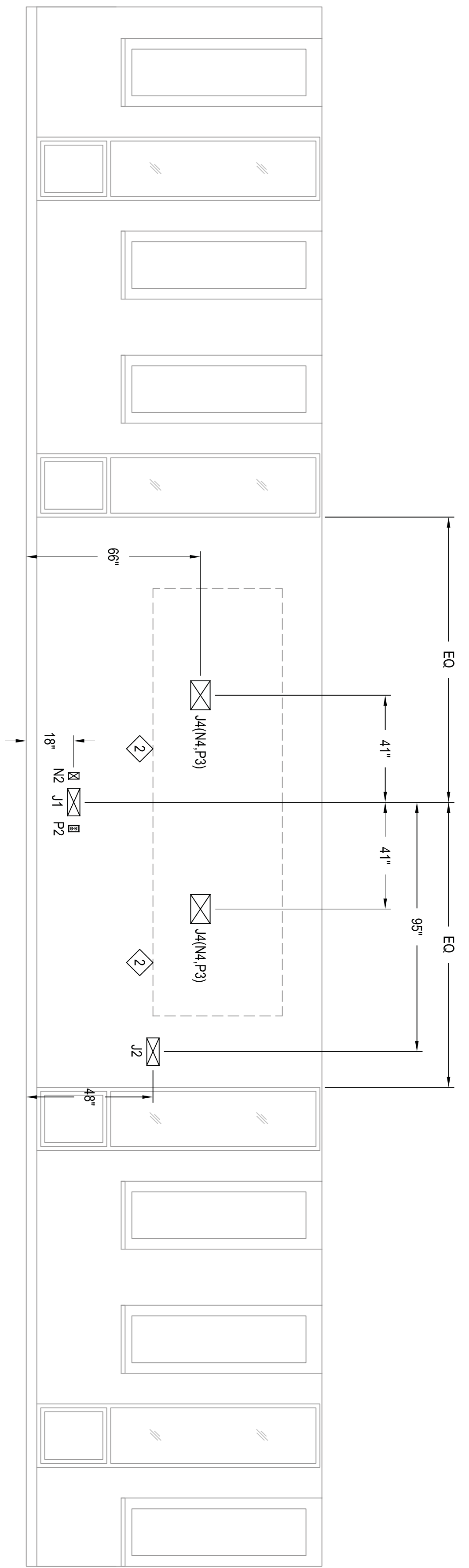
**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080  
  
 AUDIOVISUAL • IT CONSULTANT

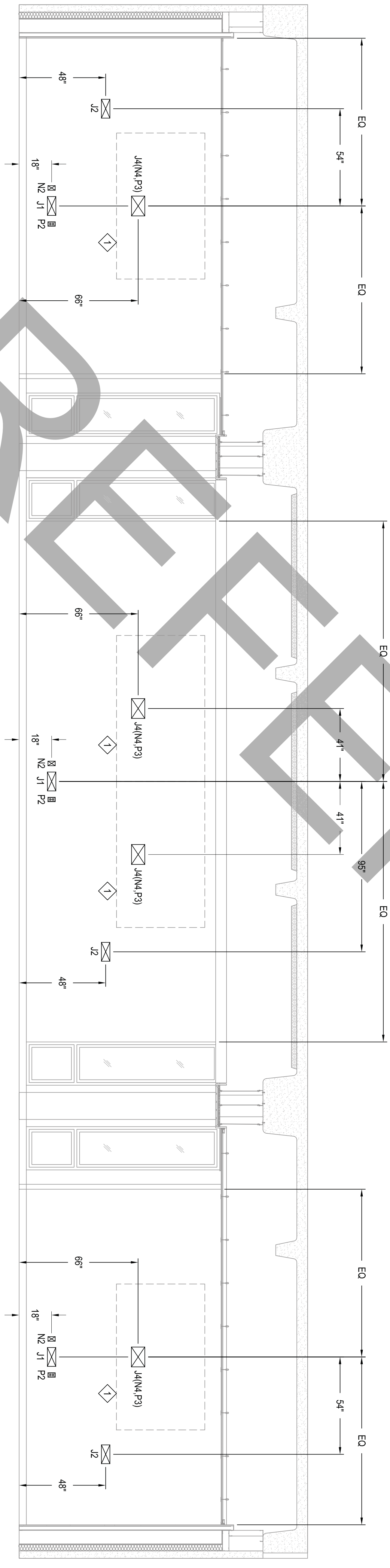
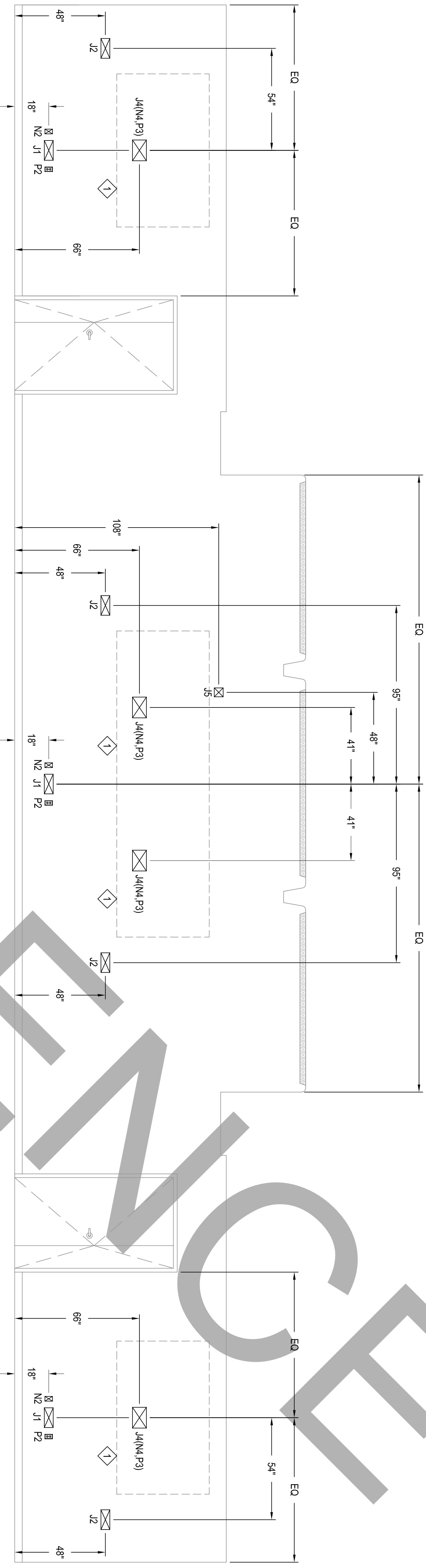
**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

ONLY





NOTES:  
1. SOUTH WALL IS A MIRROR IMAGE.

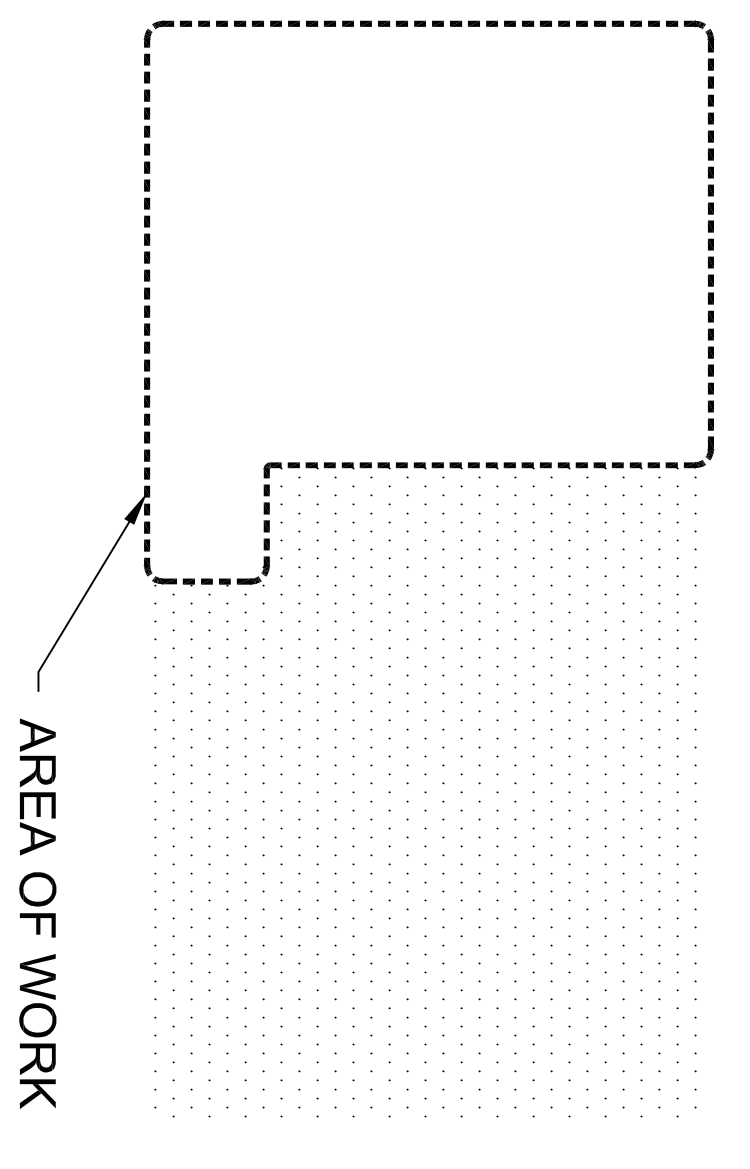


3 CLASSROOM 409 - PLAN WEST  
T201 SCALE: 3/8"=1'-0"

2 CLASSROOM 409 - PLAN EAST  
T201 SCALE: 3/8"=1'-0"

1 CLASSROOM 409 - PLAN NORTH & PLAN SOUTH  
T201 SCALE: 3/8"=1'-0"

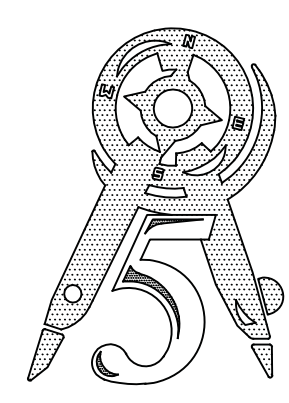
KEY PLAN  
NTS



Date:	02-14-18
Drawn:	JWV
Checked:	JP
Project Number:	18USC01
For Bidding:	02-14-18
<b>TECHNOLOGY INFRASTRUCTURE ELEVATIONS</b>	
<b>T201</b>	


**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

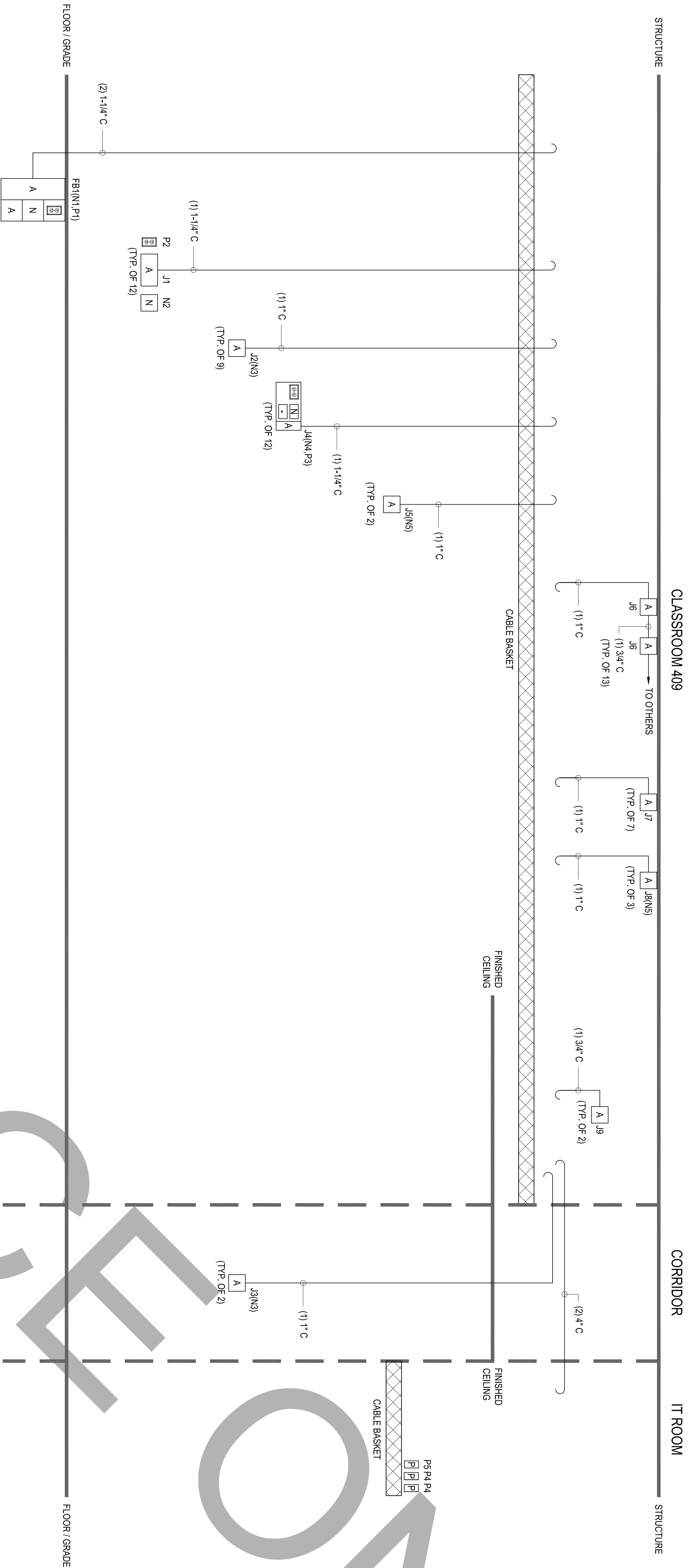
**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080



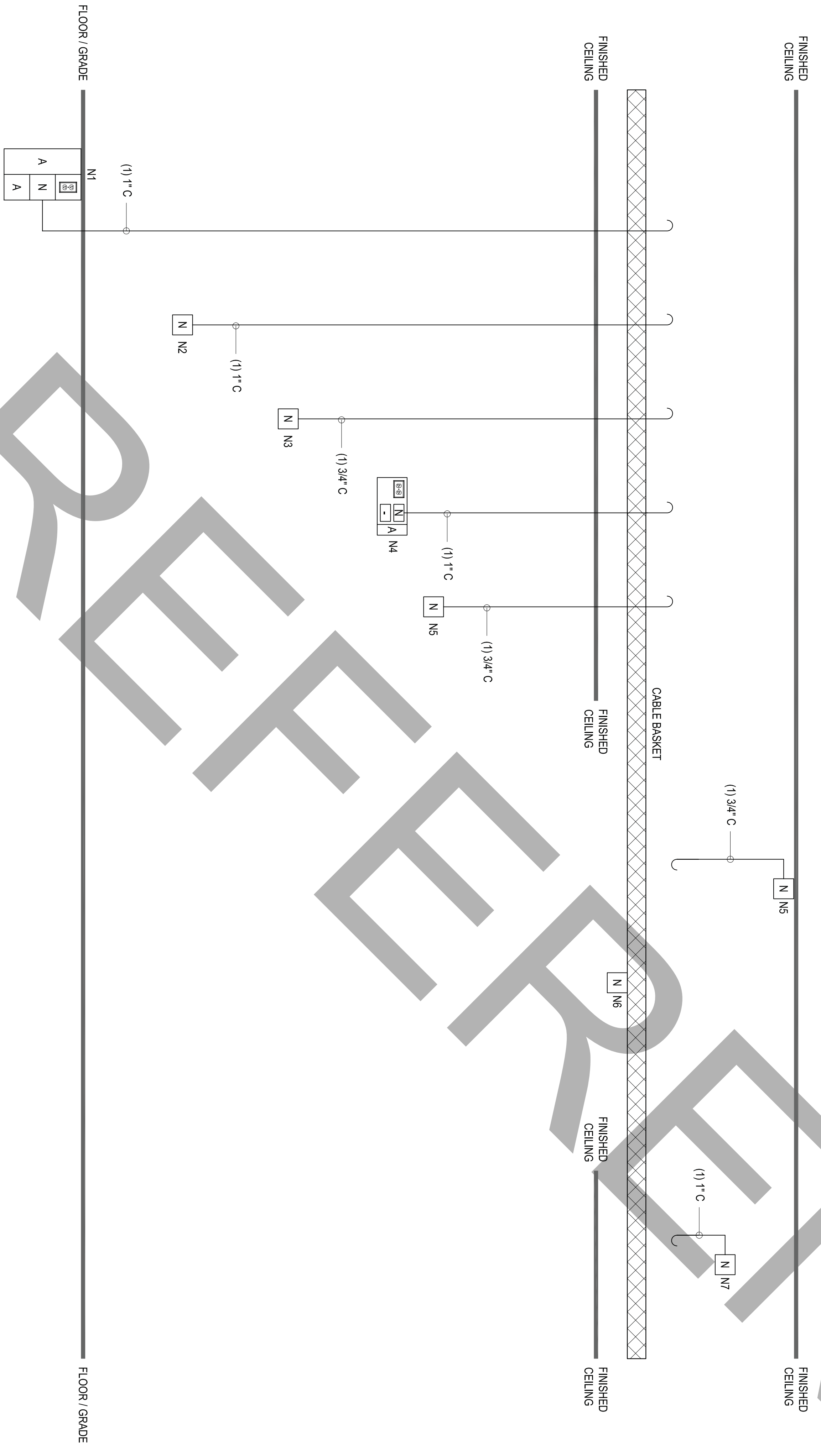
**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

AUDIOVISUAL • IT CONSULTANT





1 CLASSROOM 409 RISER DIAGRAM  
T301 SCALE: NTS



2 TELECOMMUNICATIONS TYPICAL CONDUIT RISER  
T301 SCALE: NTS

**RISER SYMBOLS LEGEND**

- Power Designators
- Junction Box for Audiovisual
- Junction Box for Network Outlets
- Audiovisual Device which contains a power receptacle and a network outlet
- Conduit stub
- Flexible conduit

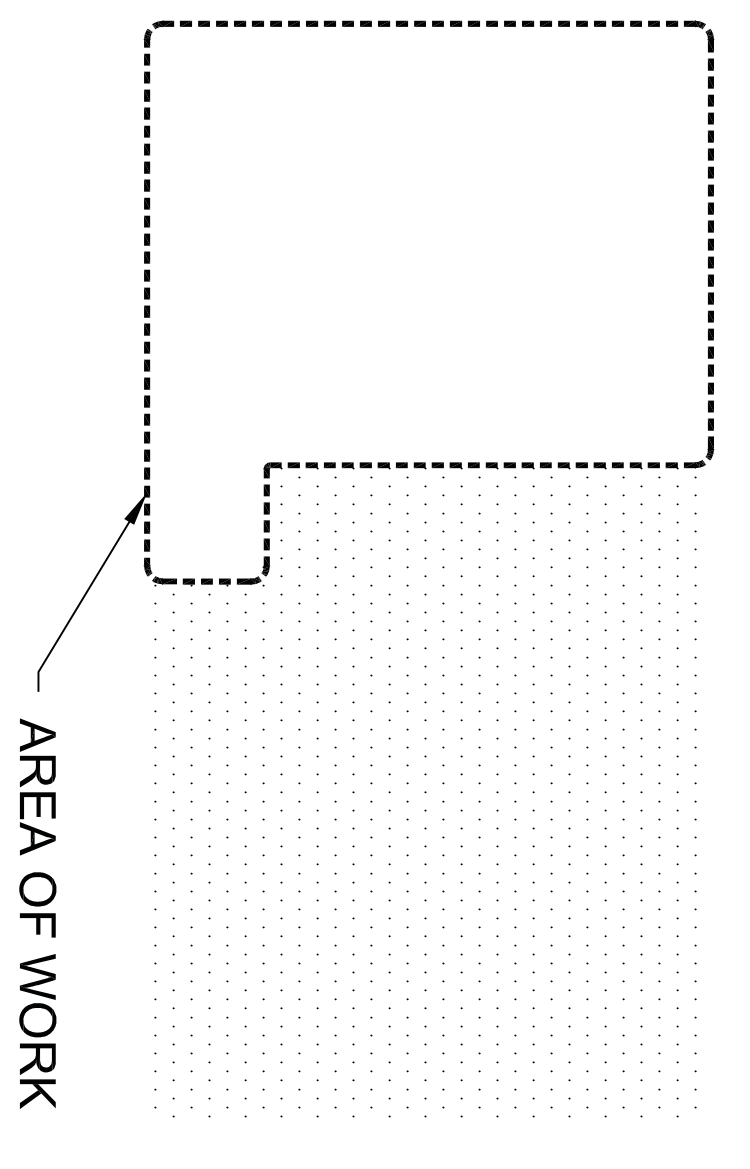
POWER DESIGNATORS & NETWORK JUNCTION BOXES ON AUDIOVISUAL RISERS

POWER DESIGNATORS AND RECEPTACLES WHICH APPEAR ON THE AUDIOVISUAL RISERS ARE SHOWN TO INDICATE THEIR REQUIRED AGENCY TO AUDIOVISUAL COMPONENTS. SEE THE TECHNOLOGY INFRASTRUCTURE SYMBOLS & LEGENDS SHEET FOR ADDITIONAL INFORMATION ON POWER RECEPTACLES FOR COMPLETE POWER LAYOUTS AND CIRCUITING DETAILS.

JUNCTION BOXES FOR NETWORK OUTLETS WHICH APPEAR ON THE AUDIOVISUAL RISERS ARE SHOWN TO INDICATE THEIR REQUIRED AGENCY TO AUDIOVISUAL COMPONENTS. REFER TO THE TECHNOLOGY INFRASTRUCTURE PLANS FOR A COMPLETE LAYOUT OF NETWORK JUNCTION BOXES FOR EACH SPACE AND TO THE TELECOMMUNICATIONS TYPICAL CONDUIT RISER 27301 FOR CONDUIT AND PATHWAY REQUIREMENTS FOR EACH NETWORK JUNCTION BOX TYPE.

CONDUIT MUST BE PROVIDED FOR ALL NETWORK JUNCTION BOXES.

KEY PLAN NTS



Project Number:	18USC01
Date:	02-14-18
Drawn:	JWV
Checked:	JP
For Bidding:	02-14-18
<b>TECHNOLOGY INFRASTRUCTURE ROOM RISERS</b>	
<b>T301</b>	

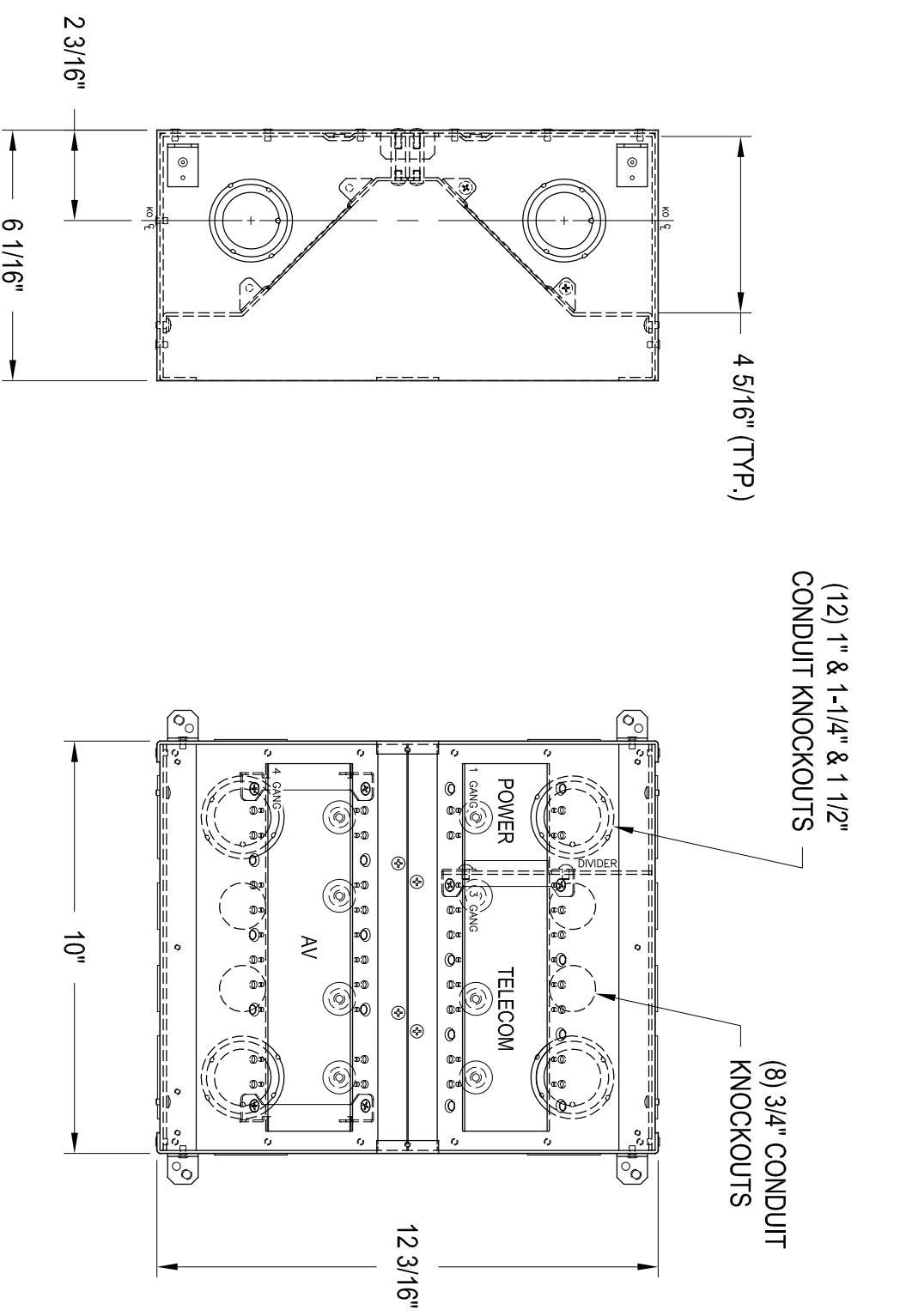
**University of South Carolina**  
**William Brice Building**  
**School of Nursing 409 Renovation**  
**Columbia, SC**

**THE SEXTANT GROUP, INC.**  
 315 W PONCE DE LEON AVE  
 SUITE 475  
 DECATUR, GA 30030  
 404.371.8080

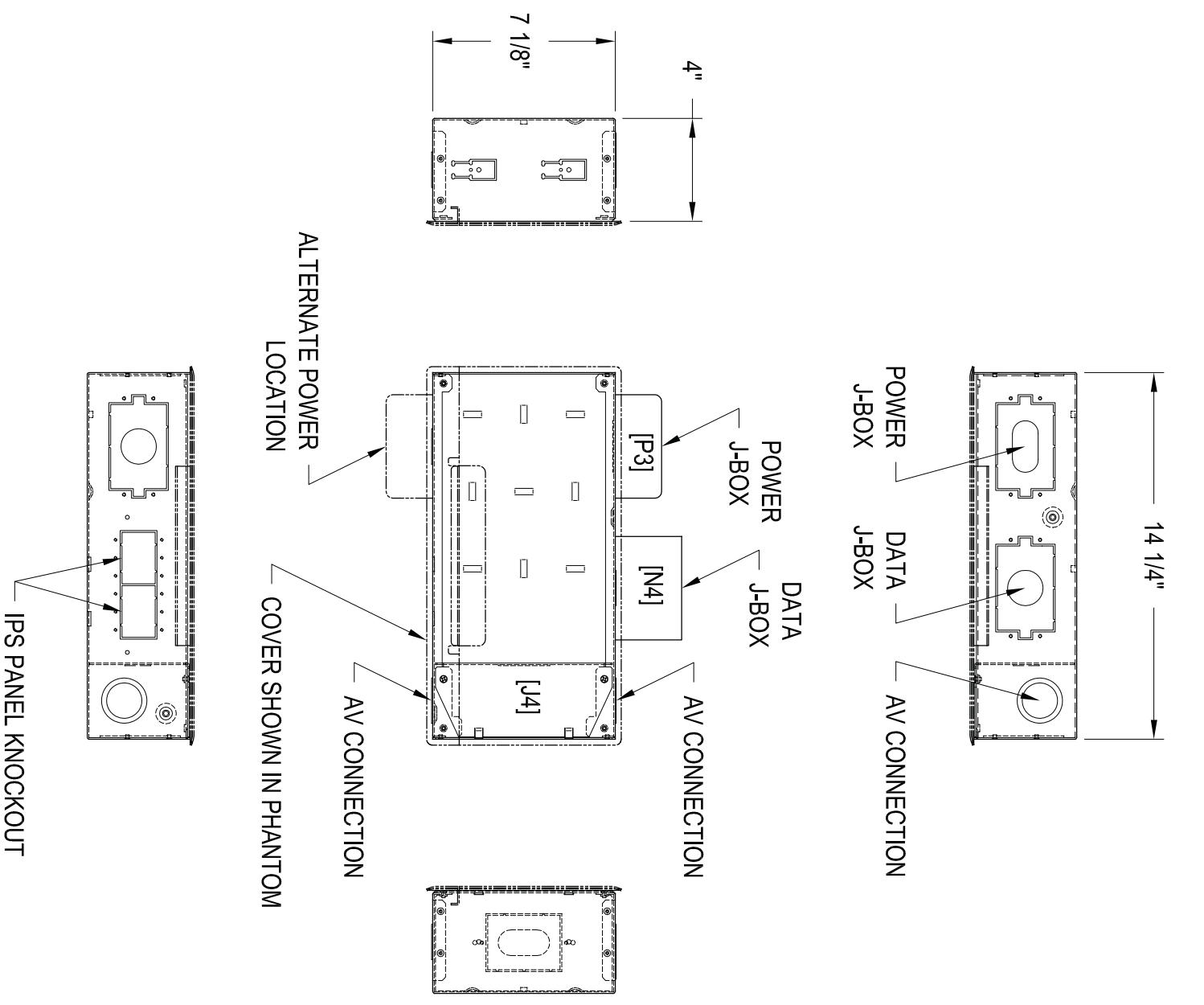
AUDIOVISUAL • IT CONSULTANT

**Compass 5 Partners, LLC**  
 1329 State Street Cayce, SC 29033  
 803 765 0838 compass5partners.com

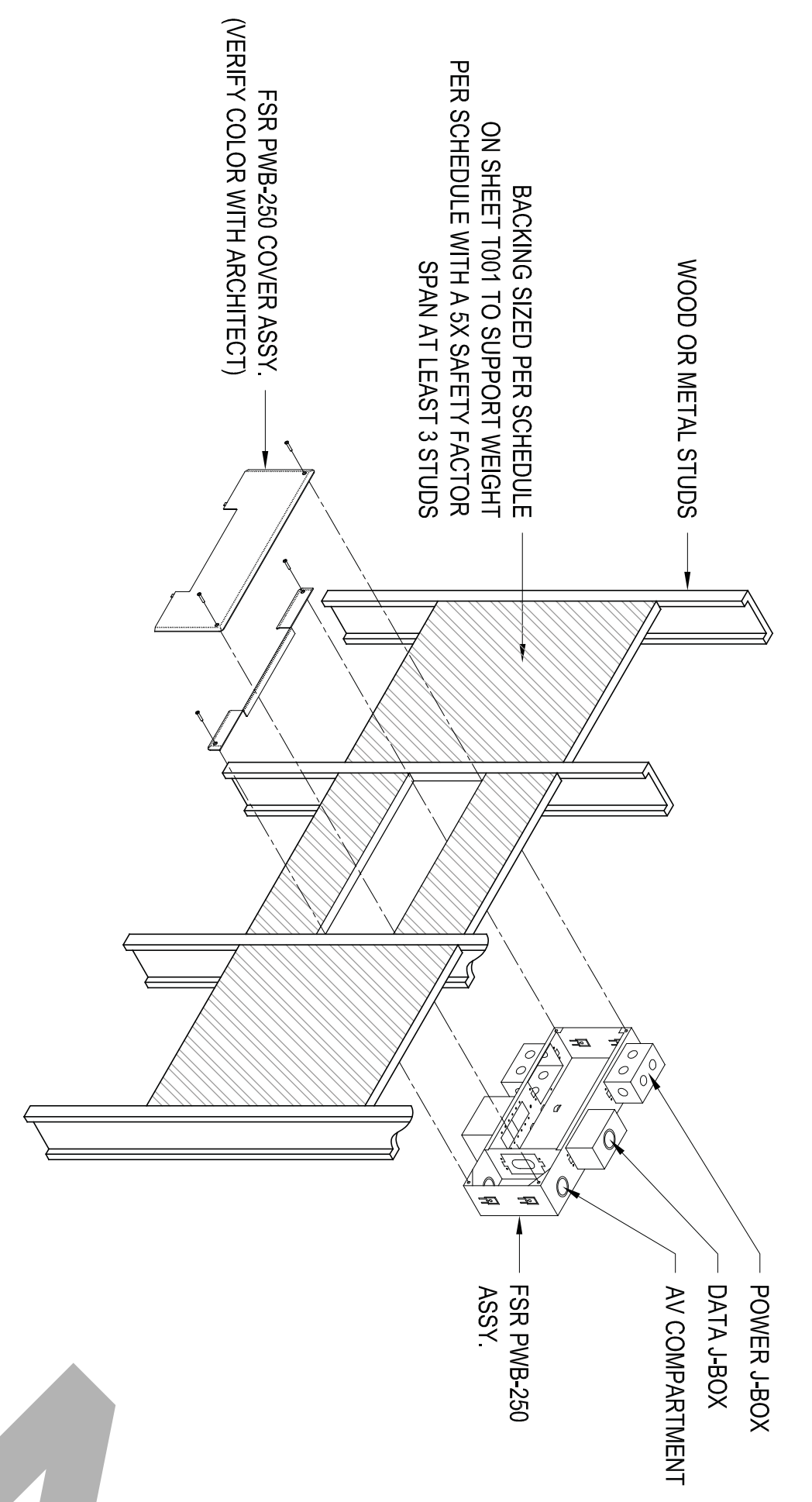




1 FSR FL-50P46 7-GANG FLOOR BOX  
T401 SCALE: NTS



2 FSR PWB-250 FLAT PANEL DISPLAY WALL BOX  
T401 SCALE: NTS

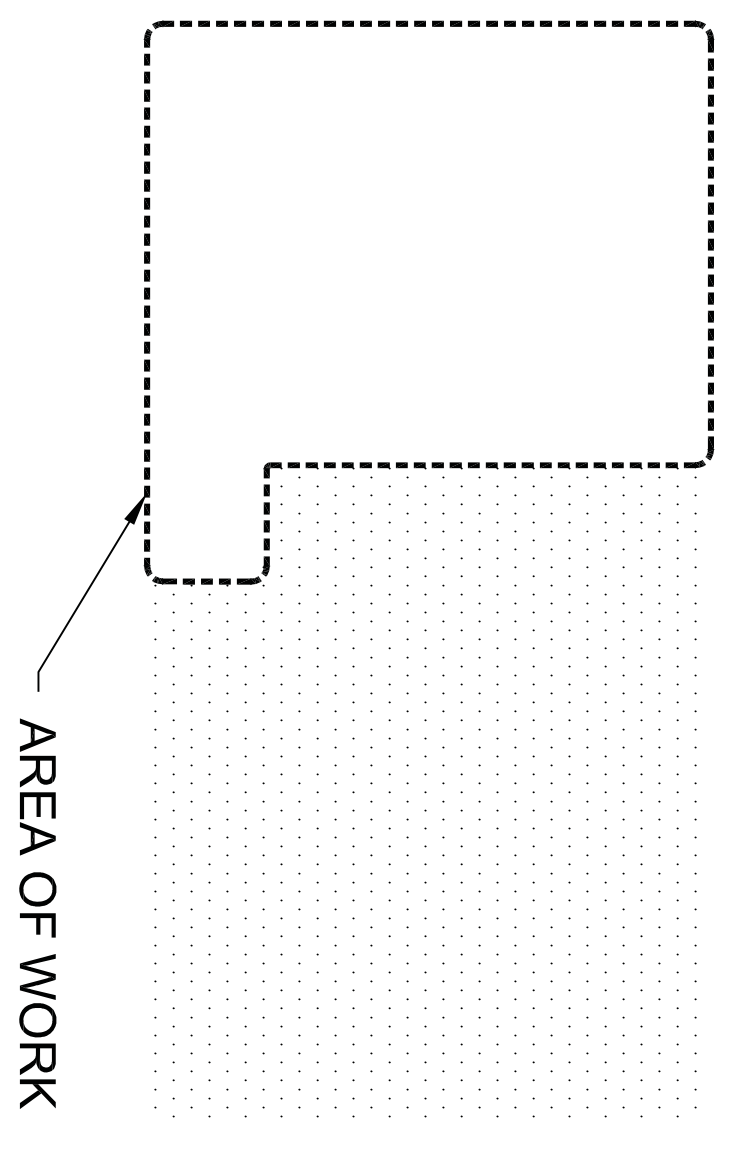


3 FSR PWB-250 - FLAT PANEL DISPLAY AND WALL BOX BACKING  
T401 SCALE: NTS

- NOTES:
1. BACKING AND J-BOX FOR WALL MOUNTED FLAT PANEL DISPLAY.
  2. BACKING MUST BE MIN 32\"/>

RENDER ONLY

KEY PLAN  
NTS



Date:	02.14.18	T401
Drawn:	JWV	
Checked:	JP	
For Bidding	02-14-18	
TECHNOLOGY INFRASTRUCTURE DETAILS		

©2018 Compass 5 Partners, LLC 18USC01  
Project Number: 18USC01

University of South Carolina  
William Brice Building  
School of Nursing 409 Renovation  
Columbia, SC

**THE SEXTANT GROUP, INC.**  
315 W PONCE DE LEON AVE  
SUITE 475  
DECATUR, GA 30030  
404.371.8080

**THE SEXTANT GROUP**

AUDIOVISUAL • IT CONSULTANT

**Compass 5 Partners, LLC**  
1329 State Street Cayce, SC 29033  
803 765 0838 compass5partners.com