



# VCU Procurement Services

July 17, 2019

ABS Technology  
Hunter Dorroh  
2809 S. Lynnhaven Road, Suite 250  
Virginia Beach, VA 23452  
hdorroh@abstechnology.com

RE: Contract #: 7406884AA  
Renewal No.: 2 of 4

To Whom It May Concern:

ABS Technology's contract with Virginia Commonwealth University (VCU) for Network Cabling Services expires on 7/31/2019. VCU intends to exercise the renewal of this contract in accordance with the terms of contract #7406884AA.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

**OPTIONAL USE CONTRACT:**

This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Services shall be provided in accordance with the contract for the renewal period: 8/1/2019 through 7/31/2020.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, P.O. Box 843040, Richmond, VA.

Please return this document to me as soon as possible. Your response may be emailed to me at [lofgreenj@vcu.edu](mailto:lofgreenj@vcu.edu)

Sincerely,

*Jason Lofgreen*  
Jason Lofgreen  
Senior Buyer

Contract #: 7406884AA

**RESPONSE:**

ABS Technology  
Name of Firm

  
Signature

Hunter Dorroh  
Name Printed

CEO  
Title

7/17/2019  
Date



# VCU Procurement Services

Date June 30, 2018

Hunter Dorroh  
ABS Technology  
2809 S. Lynnhaven Road, Suite 250  
Virginia Beach, VA 23452

RE: Contract #: 7406884AA  
Renewal No.: 1 of 4

**Procurement Services**  
University Purchasing

912 W Grace Street, 5<sup>th</sup> Floor  
Box 980327  
Richmond, Virginia 23284

804 828-1077  
Fax: 804 828-7837  
TDD: 1-800-828-1120  
[www.vcu.edu/procurement](http://www.vcu.edu/procurement)

Dear Mr. Dorroh:

Your firm's contract with Virginia Commonwealth University (VCU) for Network Cabling Services expires on July 31, 2018. VCU intends to exercise the renewal of this contract in accordance with Section XI Special Terms and Conditions, Item N. Renewal of Contract.

Your signature constitutes your firm's acceptance of this renewal.

This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Services shall be provided in accordance with the contract for the renewal period: August 1, 2018 through July 31, 2019

By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return this document to me no later than July 15, 2018. Your response may be e-mailed to me at [aranthes@vcu.edu](mailto:aranthes@vcu.edu). If you have any questions, please contact me at (804) 828-1070.

Sincerely,

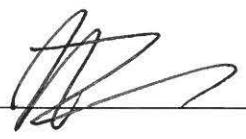
Amy Anthes  
Category Manager

Contract #: 7406884AA

**RESPONSE:**

ABS TECHNOLOGY

Name of Firm



Signature

HUNTER DORROIT

Name Printed

CEO

Title

7/2/2018

Date



**VCU**

# Request for Proposals

RFP #: 7406884AA

RFP Title #: Term Agreements for Network Cabling Services

Issuing Agency: Virginia Commonwealth University

Using Dept.: Technology Services

Issue Date: April 3, 2017

Closing Date: April 28, 2017, 11:00 a.m.



A VASCUPP Member Institution

**Request for Proposals RFP #7406884AA**

**Issue Date: April 3, 2017**

**Title:** Term Agreements for Network Cabling Services

**Send all Proposals To:** Virginia Commonwealth University  
RFP #7406884AA  
Attention: Amy Anthes  
912 W Grace St, 5th floor  
Richmond, Virginia 23284

**Sealed Proposals Shall Be Received Until: 11:00 a.m. local time on April 28, 2017**

**Direct ALL inquiries concerning this RFP to: Amy Anthes, Senior Buyer, at [aranthes@vcu.edu](mailto:aranthes@vcu.edu)**

**Contract Term will be for one (1) year with four (4) optional one (1) year renewals**

**Questions concerning this RFP must be received via email no later than: April 14, 2017 at 2:00PM EST**

This Request for Proposals & any Addenda are posted on the eVA website at: <http://www.eva.virginia.gov>

HARD-COPY, ORIGINAL PROPOSALS MUST BE RECEIVED IN VIRGINIA COMMONWEALTH UNIVERSITY'S DEPARTMENT OF PROCUREMENT SERVICES ON OR BEFORE THE DATE AND TIME DESIGNATED ON THIS SOLICITATION. ELECTRONIC SUBMISSIONS AND FACSIMILE SUBMISSIONS WILL NOT BE ACCEPTED IN LIEU OF THE HARD-COPY, ORIGINAL PROPOSAL. VENDORS ARE RESPONSIBLE FOR THE DELIVERY OF THEIR PROPOSAL. PROPOSALS RECEIVED AFTER THE OFFICIAL DATE AND TIME WILL BE REJECTED. THE OFFICIAL DATE AND TIME USED IN RECEIPT OF RESPONSES IS THAT TIME ON THE CLOCK OR AUTOMATIC TIME STAMP IN THE DEPARTMENT OF PROCUREMENT SERVICES.

**IF PROPOSALS ARE HAND DELIVERED OR SENT BY FEDEX, UPS, OR ANY OTHER PRIVATE COURIER, DELIVER TO THE ADDRESS NOTED ABOVE: VIRGINIA COMMONWEALTH UNIVERSITY, RFP #7406884AA, ATTENTION: Amy Anthes, 912 W. GRACE ST., 5<sup>TH</sup> FLOOR, RICHMOND, VA 23298-0327.** IF USING US MAIL (NOT RECOMMENDED): IF PROPOSALS ARE MAILED VIA US MAIL ONLY, MAIL TO VIRGINIA COMMONWEALTH UNIVERSITY, RFP#7406884AA Attn: Amy Anthes, PO BOX 980327, RICHMOND, VA 23298-0327. THE RFP NUMBER, DATE AND TIME OF PROPOSAL SUBMISSION DEADLINE, AS REFLECTED ABOVE, MUST CLEARLY APPEAR ON THE FACE OF THE RETURNED PROPOSAL PACKAGE.

In Compliance With This Request for Proposals And To All Conditions Imposed Therein and Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services Described Herein In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation. Furthermore, The Undersigned Agrees Not To Start Any Work Relative To This Particular Solicitation Until A Resulting Formal Signed Purchase Order Is Received By The Contractor From University's Department of Procurement Services. Any Work Relative To This Request for Proposals Performed By The Contractor Prior To Receiving A Formal Signed Purchase Order Shall Be At The Contractor's Own Risk And Shall Not Be Subject To Reimbursement By The University.

**Signature below constitutes acknowledgement of all information contained through links referenced herein.**

**NAME AND ADDRESS OF COMPANY:**

_____	Date: _____
_____	By ( <i>Signature In Ink</i> ): _____
_____ Zip Code _____	Name Typed: _____
E-Mail Address: _____	Title: _____
Telephone: ( ____ ) _____	Fax Number: ( ____ ) _____
<b>Toll free, if available</b>	<b>Toll free, if available</b>
DUNS NO.: _____	FEI/FIN NO.: _____

REGISTERED WITH eVA: ( ) YES ( ) NO	SMALL BUSINESS: ( ) YES ( ) NO
VIRGINIA DSBSD CERTIFIED: ( ) YES ( ) NO	MINORITY-OWNED: ( ) YES ( ) NO
DSBSD CERTIFICATION #: _____	WOMEN-OWNED: ( ) YES ( ) NO

**A Pre-Proposal conference will be held. See Section V herein.**

**THIS SOLICITATION CONTAINS 43 PAGES.**

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I. **PURPOSE:**

The intent and purpose of this Request for Proposals (RFP) is to allow interested Contractors an opportunity to provide information that will be evaluated to establish term agreements for Network Cabling Services for Technology Services at Virginia Commonwealth University (the lead issuing institution and hereafter referred to as “the University” or “VCU”), an agency of the Commonwealth of Virginia.

It is the intent of this solicitation and resulting contract(s) to allow for cooperative procurement. Accordingly, any public body, public or private health or educational institution or lead-issuing institution's affiliated foundations may access any resulting contract(s) if authorized by the Contractor.

Participation in this cooperative procurement is strictly voluntary. If authorized by the Contractor(s), the resultant contract(s) may be extended to the entities indicated above to purchase at contract prices in accordance with contract terms. The Contractor shall notify the lead-issuing institution in writing of any entities accessing the contract. No modification of this contract or execution of a separate contract is required to participate. The Contractor shall provide usage reports for all entities accessing the Contract upon request. Participating entities shall place their own orders directly with the Contractor(s) and shall fully and independently administer their use of the contract(s) to include contractual disputes, invoicing and payments without direct administration from the lead-issuing institution. The lead-issuing institution shall not be held liable for any costs or damages incurred by any other participating entity as a result of any authorization by the Contractor to extend the contract. It is understood and agreed that the lead-issuing institution is not responsible for the acts or omissions of any entity, and will not be considered in default of the Agreement no matter the circumstances.

Use of this contract(s) does not preclude any participating entity from using other contracts or competitive processes.

Additional information on cooperative procurement is available at:

[http://documents.procurement.vcu.edu/purchasing/pdf\\_docs/forms/RFP Website Link Cooperative Procurement.pdf](http://documents.procurement.vcu.edu/purchasing/pdf_docs/forms/RFP_Website_Link_Cooperative_Procurement.pdf)

II. **GOVERNING RULES:**

This solicitations is issued in accordance with the provisions of:

A. Purchasing Manual for Institution of Higher Education and their Vendors  
(<https://vascupp.org>)

B. Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public institution of Higher Education of the Commonwealth of Virginia  
(<https://vascupp.org>)

III. **OPTIONAL USE CONTRACT:**

The resulting contract(s) will be an optional use contract. VCU is in no way required to make purchases from the Contractor and may in its sole discretion purchase the identical and/or similar



goods/services from other sources. Any estimates/quantities contained herein do not represent a purchase commitment by VCU.

**IV. THE UNIVERSITY:**

Virginia Commonwealth University (VCU) is a large urban University located in Richmond, Virginia. The University has 13 schools and 1 college offering over 220 undergraduate, graduate, doctoral and certificate programs, and conducted over \$270 million in sponsored research in fiscal year 2016. With more than 31,000 students and 21,000 full- and part-time employees in both VCU and VCU Health, the University is recognized as both one of the largest Universities in Virginia, and the largest employer in Richmond.

Additional information is available at:

[http://documents.procurement.vcu.edu/purchasing/pdf\\_docs/forms/RFP\\_Website\\_Link\\_The\\_University.pdf](http://documents.procurement.vcu.edu/purchasing/pdf_docs/forms/RFP_Website_Link_The_University.pdf)

**V. PRE-PROPOSAL CONFERENCE:**

An optional pre-proposal conference will be held at **2:00 PM on April 12, 2017** at the:

VCU Technology Administration Building  
701 West Broad St.  
Room 202  
Richmond, Virginia 23220

**For directions and paid parking information visit:**

<http://business.vcu.edu/about-the-school/our-location/directions--parking/>

The purpose of the conference is to allow Offerors an opportunity to ask questions and obtain clarification relative to any facet of this solicitation. Offerors are strongly encouraged to submit questions in advance by emailing them to [aranthes@vcu.edu](mailto:aranthes@vcu.edu) prior to the conference.

**VI. STATEMENT OF NEEDS:**

This Section describes VCU's requested goods and/or services and the areas to be addressed in Offeror's Proposal. Proposal response must be written in the same order as outlined below. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities. Emphasis should be placed on completeness and clarity of content. Failure to submit all information requested may result in the elimination of the Proposal from consideration. Proposals that are substantially incomplete or lack key information may be rejected by VCU. Please note that utilization of the words "shall" or "must" indicates a mandatory requirement.

**A. Scope and Introduction**

1. The Network Services Department at VCU is responsible for the installation of data, voice and video distribution cabling throughout the University. There is an on-going need to supplement the efforts of the in-house staff with outside contractors. Network Services wishes to establish agreements to provide these Network Cable Installation Services.
- 2 Project / Contractor Assignment Under Agreement:
  - a. Projects valued at less than \$10,000:

Individual Cat 6e+ UTP cable projects will be assigned to Contractors during the agreement term utilizing a rotational matrix established for this purpose:

- i. The Small Project Matrix will be used for projects estimated to be less than the VCU Departmental Purchasing Delegated Authority (currently at \$10,000.00).
  - ii. Contractors will be listed on the Small Project Matrix in alphabetical order. Contractors will be assigned individual projects by proceeding in an “A-Z” direction on this matrix.
- b. Projects valued at greater than \$10,000:

Individual Cat 6e+ UTP cable projects valued at greater than \$10,000 will be awarded as the result of a competitive bid process among the Contractors participating in this Term Agreement. Projects will be awarded to the lowest responsive and responsible bidder.

3. The following information reflects the value and associated numbers of the total annual expenditures for the prior 3 fiscal years:

<u>Dollar Range</u>	<u># of Jobs</u>	<u>Dollar Value</u>
Under \$10,000	230	\$631,899.00
\$10,001-\$50,000	14	\$343,048.00
\$50,001-\$500,000	8	\$990,297.00

4. The initial period of the agreements shall be for one (1) year with the option to renew the term agreements for four (4) additional one-year periods. At the sole option of the University, VCU may elect to enter into agreements with additional Contractors at any time.

**B. Required Technical Specifications**

- 1. The Contractor shall furnish all materials, labor, supervision, tools, test equipment and conduct appropriate tests to provide installation service to VCU. All installations shall conform to appropriate installation standards and guidelines including State and University rules. The Contractor shall comply with all aspects of the following:
  - a. EIA/TIA-568-C and addenda, Commercial Building Telecommunications Wiring Standards.
  - b. EIA/TIA-569-B and addenda, Commercial Building Standard for Telecommunications Pathways and Spaces.
  - c. In order to ensure compliance with the above standards, the Contractor shall perform installations utilizing the methods and recommendations detailed in the building Industry Consulting Services International Telecommunications Distribution Methods Manual.
- 2. The Contractor shall fire stop all cable runs to meet national and local fire codes. All walls must maintain their fire rating. Specifications on fire stop to be used (i.e. manufacturer name and part number) shall be adhered to.
- 3. The Contractor shall provide as-built drawings in hard copy format.
- 4. The Contractor shall submit a detailed list of materials to include part numbers and quantities to be used for all VCU Network Services’ projects with response to individual project assignments. A detailed list of materials is to be submitted with bids in order to be considered for award.

5. Prior to starting work, the Contractor must provide a detailed work schedule to VCU Network Services, to include:
  - a. The on-site Supervisor shall be on-site at all times.
  - b. The on-site Supervisor's name and phone number shall be provided on the schedule.
  - c. The name of all wiring technicians, for each project, shall be provided on the schedule. The names will be cross-referenced with the certifications that were submitted during the RFP process.
6. All Contractor personnel working on VCU Network Services' projects shall be responsible for obtaining a VCU Contractors and affiliates ID card. This ID card shall be worn at all times. The VCUCard office will issue the ID badge at a cost, to the Contractor, of \$20 each. If the contractor's technician is unable to provide the VCU identification badge, upon request, he/she will be asked to leave the job-site. The technician cannot return to the job-site until the proper identification badge is obtained. Identification badges are to be returned to VCU Network Services' Project Manager at the time of final inspection. The identification badge will be kept on file and redistributed when another project has been awarded.
7. All VCU cabling installations shall carry a Siemon Company Structured Cable Warranty. All associated registration and documentation guidelines shall be followed. Once a project has been awarded, it is the Contractor's responsibility to register the job with the Siemon Company and follow through with all necessary information to obtain the Siemon Certificate of Warranty. Failure to follow the procedures will result in the withholding of final payment.

**Note:** The Siemon Company reserves the right to perform audits throughout the duration of Network Service's cabling projects.
8. The Contractor shall correct any damage to existing systems which occurs during an installation at no cost to the University.
9. All installations require proper grounding as required by ANSI-J-STD-607-A and addenda and consideration of NEC Article 250 and Article 800 is recommended for communication circuits.
10. The Contractor shall use an Underwriter Laboratories (UL) listed polymer based formula cable pulling lubricant when pulling communication cables through existing conduits. The lubricant shall be applied immediately before or during the pull.
11. The Contractor shall submit a detailed list of materials to include part numbers and quantities to be used for all VCU Network Services projects that are competitively solicited under the resulting agreement. It is the responsibility of the Contractor to notify VCU Network Services of any part number and or item description discrepancies, prior to ordering materials.
12. Fiber Optic Installation Requirements:
  - a. Fiber cable runs interconnecting between buildings are to be installed using a gel filled, loose buffer tube fiber optic cable.
  - b. Fiber cable runs within buildings are to be installed with tight buffer OFNR rated cable.
  - c. Fiber cables shall have all fibers terminated at each end. LC type connectors with ceramic ferrules shall be used, unless otherwise specified by VCU Network Services. All fiber splices must be installed in a splice tray.
  - d. Anaerobic fiber connectors are accepted and shall meet the following characteristics:
    - i. Meet the Fiber Optic Connector Intermateability Standards (FOCIS) specifications of TIA/EIA-604-10.

- ii. Be available in simplex and duplex versions.
  - iii. Utilize same termination kit available for ST, SC and LC versions.
  - iv. Terminate 50/125µm, 62.5/125µm and 8.3/125µm optical fiber.
  - v. Have a quick field termination process, which does not require power.
  - vi. Have a termination process, which incorporates use of a reliable anaerobic adhesive, which has a high resistance to environmental extremes
  - vii. Utilize a precision Zirconia ceramic ferrule
  - viii. Have jacketed and buffered versions.
- e. All mechanical optical fiber connectors shall meet the following characteristics:
- i. Meet the Fiber Optic Connector Intermateability Standards (FOCIS) specifications of TIA/EIA-604-10.
  - ii. Be a pre-polished mechanical splice connector.
  - iii. Be available in simplex only versions.
  - iv. Terminate 50/125µm, 62.5/125µm and single mode optical fiber.
  - v. Have a quick field termination incorporating a dual-process activation to reduce termination time.
  - vi. Available for terminating 900µm buffered fiber only.
  - vii. Meet the multimode performance specifications for insertion loss (0.20db) and for return loss (-37db).
  - viii. Meet the singlemode performance specifications for insertion loss (0.20db) and for return loss (-55db).
- f. The connection to loose buffer tube fiber may use splices to pigtail fibers which are epoxied to the LC connector (splice trays must be used to store any finished splices) or appropriate breakout tubing with the LC connector directly connected to the fiber.
- g. Each fiber shall be tested bi-directionally at 850 and 1300nm (1300 and 1550nm for single-mode fiber) with an optical fiber power loss set. All splices and LC connectors shall test with less than 0.25db loss per connector or splice. Fibers exceeding the specified loss shall be repaired and retested.
- h. All cables shall be clearly labeled with printer-generated labels; black print with white background at time of final inspection as to origin and destination.
- i. The fiber distribution panels shall be designed to physically protect the fibers on both sides of the barrel. The only exception to this rule is for the fiber cables of four or less strands. These may be installed in a 2 ¾ " deep single gang outlet box with Siemon #MX-FP-S-XX-02 Max Modular Faceplates and Siemon #MX-F1-LC-X-02 Max Fiber adapter modules with duplex LC flat couplers. Fiber extension rings of 1" in depth may be used in conjunction with a 1 ½" deep single gang outlet box.
- j. All distribution fibers must be installed in conduit as described in Item 15. Communications Conduit Installation Requirements.

### 13. Fiber Optic Cable Requirements:

#### a. Multimode Fiber optic cables:

- i. The fiber specified by the owner shall be 62.5-micron core in a 125-micron cladding or a 50-micron core in a 125-micron cladding of multimode graded index glass.
- ii. The 62.5/125 $\mu$ m fiber shall be rated for dual wavelength use at both 850nm with at least 200MHz/km bandwidth and 1300nm with at least 500MHz/km bandwidth.
- iii. The 50/125 $\mu$ m fiber shall be rated for dual wavelength use at both 850nm and 1300nm with a minimum bandwidth of 500MHz/km at each wavelength.
- iv. The fiber shall have a maximum attenuation of 3.5dB/km at 850nm and a maximum attenuation of 1.0dB/km at 1300nm on all fibers within the cable.
- v. The glass fiber shall be of high quality and shall be traceable by lot number in case of problems. Fiber made by Corning Glass fulfills these requirements.
- vi. The cables shall have no conductive wires or elements (all dielectric construction).
- vii. The cables shall not be armored.
- viii. Qualified multimode fiber optical fiber cables shall be in compliance with the following standards ISO/IEC 11801:2002 OM3, ANSI/TIA/-568-C.3, ANSI/TIA/-568-C.3-1 except the limits for attenuation and bandwidth for cables containing 50/125 $\mu$ m or 62.5/125 $\mu$ m fiber shall be as noted above.
- ix. The 62.5/125 $\mu$ m fiber shall have a guaranteed transmission distance for Gigabit Ethernet of 275 meters at 850nm and 550 meters at 1300nm. The 50/125  $\mu$ m fiber shall have a guaranteed transmission distance for Gigabit Ethernet of 550 meters at both 850nm and 1300nm.
- x. Qualified cables shall perform in accordance with the attenuation limits as noted above when tested per ANSI/TIA-455-46, -53, -61 or -78 (as applicable).
- xi. Qualified cables shall perform in accordance with the bandwidth limits as noted above when tested.
- xii. The protocol pertinent to the transmission distances noted above for Qualified Cables is Gigabit Ethernet per IEEE 802.3:2002.
- xiii. Fiber will also have both a thermoplastic outer and inner jacket, contain inner Aramid yarn and Dielectric central strength members.

#### b. Single-mode Fiber optic cables.

- i. The fiber shall be 8.3-micron core in a 125-micron cladding.
- ii. The fiber shall be rated for dual wavelength use at both 1300nm with a mode-field diameter of 9.30-1550nm with a mode-field diameter of 10.50-1.00 micron.
- iii. The attenuation at 1383-3nm shall not exceed 2.1 dB/km.

- iv. The attenuation between 1285 and 1310nm shall not exceed the attenuation at 1310nm by more than 0.10 dB/km, between 1310 and 1330nm shall not exceed the attenuation at 1310nm by more than 0.05 dB/km, and between 1525 and 1575nm shall not exceed the attenuation at 1550 nm by more than 0.05 dB/km.
  - v. The zero dispersion wavelength shall be between 1300 and 1322 nm with a zero dispersion slope less than or equal to 0.092 ps/ (nm<sup>2</sup>-km).
  - vi. The cladding non-circularity shall not exceed 2.0%.
  - vii. Qualified singlemode optical fiber cables shall be in compliance with ISO/IEC 11801:2002 OS1, ANSI/TIA-568-C.3.
  - viii. Qualified cables shall perform in accordance with the attenuation limits as noted above when tested per ANSI/EIA/TIA-455-46, -53, -61 or -78 (as applicable).
  - ix. Qualified cables shall perform in accordance with the Zero Dispersion wavelength and slope limits as noted above when tested per ANSI/TIA-455-168, -169, or -175 (as applicable).
  - x. Shall be available in OFNR and OFNP ratings.
- c. Tight buffered fiber cables:
- i. The cables shall have at least a UL rating of Optical Fiber Nonconductive Riser (OFNR).
  - ii. The cables shall have a breakout jacket on each fiber such that a LC type connector can be directly attached to the fiber cable without requiring a pigtail splice of jacketed fiber to connect to the ST connector.
  - iii. The breakout jacket on each fiber shall have a standard color-coding for identification.
  - iv. The glass fiber shall have passed the Optical Fiber Proof Test at 100kpsi with a maximum flaw size of 0.7 microns.
  - v. The glass fiber shall have an Acrylate coating around the glass fiber to a diameter of 500 microns.
  - vi. The cable shall have a crush resistance greater than or equal to 200N/cm (EIA-455-41).
  - vii. The cable shall have an impact resistance greater than or equal to 20 impacts with 1.0 N-m per the EIA-455-25 standard.
- d. Gel filled, loose buffer tube fiber cables:
- i. The buffer tubes shall be filled with a waterproof gel.
  - ii. The buffer tubes shall contain 6 fibers each.
  - iii. Each fiber in the buffer tube shall have a standard color-coded coating for identification.

- iv. The glass fiber shall have passed the Optical Fiber Proof Test at 1000kpsi.
- v. The glass fiber shall have an Acrylate coating around the glass fiber to a diameter of 250 microns.
- vi. The cable shall have a crush resistance greater than or equal to 600N/cm (EIA-455-41).
- vii. The cable shall have an impact resistance greater than or equal to 20 impacts with 1.0 N-m per the EIA-455-25 standard.
- e. Fiber Optic Test Results:
  - i. The Contractor shall be responsible for bi-directional testing, using a fiber optic power meter. **OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) WILL NOT BE ACCEPTED.**
  - ii. Multi-mode fiber shall be tested at both 850nm and 1300nm.
  - iii. Single-mode fiber shall be tested at both 1300nm and 1550nm.
  - iv. Test results shall include, at a minimum, the following information: identification of each buffer tube and fiber strand color; length; limit (db); value (db); wavelength (nm; margin (db). Test results shall be saved in .TXT or .FLW format and include VCU Network Services HD#.
  - v. Fiber test results for the fiber listed above shall be delivered to VCU Network Services in hard copy format at time of final inspection.

14. Communications Conduit Installations Requirements:

- a. The Contractor shall x-ray floors prior to any penetrations using a certified x-ray technologist. Note: GPR (Ground Penetrating Radar) is also acceptable.
- b. All conduits shall be reamed throughout and bushed at both ends.
- c. There shall be no more than two (2) 90-degree bends between pull points.
- d. Pull Strings shall be left in all conduits and inner ducts.
- e. Conduit must be installed, at a minimum of, 6" away from sprinkler heads.
- f. Typical outlet boxes shall be single gang with a 1-inch conduit feed.
  - i. No more than 8 UTP cables shall be pulled through a 1-inch conduit.
- g. For additional outlets at one location, a double gang box with a 2-inch conduit feed may be used.
  - i. No more than 22 UTP cables shall be pulled through a 2-inch conduit.
- h. Outlet boxes shall not be daisy-chained together. Each box shall have a dedicated conduit from the main cable tray or distribution system.
  - i. **Note:** ½" and ¾" conduit is not to be used. Fill capacity for all other sizes to be

determined by VCU Network Services.

15. Category 5e/6e+ UTP Cable Specifications:

- a. Cable runs outside of conduit shall be supported every four (4) feet with J-hooks or equivalent from the outlet stub to the communication room. Cable and cable supports are not to be attached to or laid across other cables, pipes or conduit or ceiling grid wires. Cables may not touch any part of the ceiling grid at any time.
- b. All Category 5e/6e+ terminations shall follow the T568B wiring pin out standard, using Siemon Max or ZMAX series Category 6e+ components throughout (VCU standard: no substitutions).
  - i. Use angled or flat jacks at the outlet.
- c. Siemon #MX-PNL-XX or Z6-PNL-XX rack mounted patch panel frames shall be used to terminate the cabling in the Telecommunications Rooms (VCU standard: no substitutions).
  - i. Use Z6-20 ZMax jacks at the patch panels.
  - ii. Patch panel terminations shall be laid out in a geographically logical pattern, i.e. all terminations for room 334 will be located together, next to the terminations for room 335, etc.
- d. Cable used shall be Mohawk M57197 Advancenet – Green or MegaLAN #M56168 – Blue (4-pair, UTP PLENUM cable).
- e. All outlets, patch panels and cables shall be clearly labeled with printer-generated labels, black print on a white background. At a minimum, floor, room number, and jack position shall be indicated at both ends. Labels shall be applied within six (6) inches of the termination points of all cables.
- f. Terminate the room number end using the following Siemon Max Modular series components: Siemon XMX-FP-S-04-XX Max Faceplates shall be used with single-gang boxes, unless otherwise specified. Siemon #MX6-XX Category 6 modules shall be used. When Category 5e modules are specified MX5-XX shall be used for cable terminations.
- g. The Contractor shall be responsible for bi-directional testing of each run with a VCU approved Category 5e/6e+ test set (PentaScanner, LANTEK ProXL, or other equivalent test set).
  - i. Any run that does not pass testing shall be corrected and re-tested.
  - ii. The Contractor shall provide Network Services with a CD of all test results. The CD shall be labeled with HD#, Building Name and Date submitted (xx/xx/xxxx). Test results should include, as a minimum, the following information for each run:
    - Building
    - Floor(s)
    - Room(s)
    - Communication Room(s)
    - Patch panel #
    - Patch panel port



- iii. Siemon #S66M2-5T-128LR modular jack or approved equal, 66 blocks pre-wired to RJ-45, T568B wiring pattern shall be used to provide an interface between voice riser and the horizontal distribution patch panel in the Telecommunication Rooms.
16. Video Distribution Coax Specification:
- a. Horizontal distribution coax shall be Belden 9116P (RG6) coax or a VCU approved equivalent. Plenum cable is required.
    - i. Terminate on Siemon F-type coupler plates at the outlet (VCU standard: no substitutions).
    - ii. Terminate with F-type connectors in the closet. Do not mount in patch panels.  
Coil terminated coax in closet with enough slack to allow routing anywhere in the room. Label each cable clearly.
  - b. Riser coax shall be Times Fiber Communications, Inc. T10 625 Series Semiflex jacketed cable with aluminum sheath (Part Number T10625J) or a VCU approved equivalent.
    - i. Install, but do not terminate riser coax. Coil un-terminated coax in closet with enough slack to allow routing anywhere in the room. Label each cable clearly.

**\*\* Detailed specifications are written specifically for each project. In case of a conflict with these general requirements, the detailed project specifications will take precedence.**

**VII. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS:**

A. Proposal Submission Instructions are as follows:

1. Complete and return Page 2 of the RFP. Proposals shall be signed by an authorized representative of the Offeror.
2. Complete and return signed addenda acknowledgments (if applicable).
3. Submit **one (1) original hard copy (paper)** of the entire proposal, including all attachments and proprietary information. The original proposal must be clearly marked on the outside of the proposal. Submit one (1) unsecured, electronic copy (on a disc or flash drive) of the entire proposal including all attachments and **INCLUDING ANY PROPRIETARY INFORMATION** and one (1) unsecured, electronic copy (on a disc or flash drive) of the entire proposal including all attachments and **EXCLUDING ANY PROPRIETARY INFORMATION**. These discs or flash drives must be clearly marked on the outside whether it includes or excludes proprietary information. The copies of the RFP in this Section are for Procurement Services.
4. Submit three (3) **unsecured electronic copies** (on a disc or flash drive) of the **entire** proposal, **INCLUDING ALL ATTACHMENTS AND ANY PROPRIETARY INFORMATION** for the Evaluation Committee Members.
5. Proposal Presentation:
  - a. All information requested must be submitted. Failure to submit all information requested may result in the Purchasing Agency requiring prompt submission of missing information and/or giving a lowered evaluation of the proposal. Proposals which are substantially incomplete or lack key information may be rejected by the purchasing agency. Mandatory requirements are those required by law or regulation or are such that they cannot be waived and are not subject to negotiation.

- b. All information requested by this Request for Proposals on the ownership, utilization and planned involvement of small businesses, women-owned businesses and minority-owned businesses must be submitted. If an Offeror fails to submit all information requested, the Purchasing Agency may require prompt submission of missing information after the receipt of Contractors proposals.
  - c. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.
  - d. Proposals should be organized as specified in the RFP. All pages of the proposal should be numbered. The proposal should contain a table of contents, which cross-references the RFP requirements. Information which the offeror desires to present that does not fall within any of the requirements of the RFP should be inserted at an appropriate place or be attached at the end of the proposal and designated as additional material. Proposals that are not organized in this manner risk elimination from consideration if the evaluators are unable to find the RFP requirements are specifically addressed.
  - e. Each copy of the proposal should be bound or contained in a single volume where practical. All documentation submitted with the proposal should be contained in that single volume.
6. If applicable, the outside of the Proposal must be marked to clearly denote proprietary information is contained in the documents. **Written notice of proprietary information must be submitted as the first page of the Offeror's Proposal.** Notice must specifically identify the applicable portions of the Offeror's Proposal that contain data or materials to be protected and shall state the reasons why protection is necessary. In addition, the specific (i.e. specific words, figures or paragraphs) proprietary or trade secret material submitted must be identified on the applicable page(s) within the Offeror's Proposal, by some distinct method, such as highlighting, underlining, etc. **The classification of an entire Proposal document, line item prices and/or total Proposal prices as proprietary or trade secrets is not acceptable and may result in rejection and return of the Proposal.** Ownership of all data, materials and documentation originated and prepared for VCU pursuant to the RFP shall belong exclusively to the University and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by an Offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act; however, the Offeror must invoke the protections of Section 43F of The Governing Rules, in writing, either before or at the time the data or other material is submitted.
  7. Communications regarding this Request for Proposals (RFP) shall be formal from the date of the issuance for this RFP, until either a Contractor has been selected or the University Procurement Services Department rejects all proposals. Formal communications shall be directed to the University Procurement Department only. Informal communications including but not limited to, request for information, comments or speculations, regarding this RFP to any University employee other than Procurement Services Department representative may result in the offending Offeror's Proposal being rejected.
  8. Oral Presentation: Offerors who submit a proposal in response to this RFP may be required to conduct an oral presentation of their proposal to VCU. Oral presentations are an option and may or may not be required. Should an oral presentation be required, VCU will designate the date and location for the presentation; the date is critical and alternative dates will not be available. Offerors who are invited to conduct an oral presentation shall include the individual(s) who would be the primary point of contact for VCU, on the Offerors presentation team. VCU reserves the right to re-score proposals following oral presentations.
  9. The version of the solicitation issued by the Virginia Commonwealth University Purchasing Department as amended by any addenda is the mandatory controlling version of the document. Any modification of or additions to the solicitation by the Offeror shall not modify the official

version of the solicitation issued by the Virginia Commonwealth University Purchasing Department unless accepted in writing by the University. Such modifications or additions to the solicitation by the Offeror may be cause for rejection of the proposal; however, Virginia Commonwealth University reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a proposal. If the modifications or additions are not identified until after the award of the contract, the controlling version of the solicitation document shall still be the official state form issued by the Purchasing Department.

10. Additional information is available at:

<http://go.vcu.edu/procurement-purchasing>

B. SPECIFIC PROPOSAL REQUIREMENTS:

Proposals should be as thorough and detailed as possible so that VCU may properly evaluate your capabilities to provide the required goods/services. Offerors are required to submit the following items as a complete proposal:

1. The return of the entire RFP cover sheet and all addenda acknowledgments, if any, signed in ink and filled out as required.
2. Proposed price as described in the pricing schedule. Please use the pricing scenario provided.
3. Describe the proposed plans and approach for providing the products and services as specified in the RFP Section VI, Statement of Needs, Items A and B. In addition to what is specifically identified in the Statement of Needs, please provide information for the items listed below, but do not limit information to these items:

a. Contractor Licensing:

Prior to submission of the proposals, Contractors are required to have a class "A" license with appropriate specialty classification as recognized by the Virginia Board for Contractors, Department of Professional and Occupational Regulation to perform cable installation services. Contractors interested in conduit and cable installation jobs must have either an Electrical Specialty or an Electronics Specialty. Submit a copy of your license.

Contractor's License No. \_\_\_\_\_

Class A Contractor: \_\_\_\_ Yes \_\_\_\_ No

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

Specialty: \_\_\_\_\_

b. Areas of Interest:

Indicate the goods/ services that your firm would like to provide. Check all that apply.  
Note: Firms may only be solicited for cabling projects in the categories indicated.

For Labor Only projects, firms will be solicited to provide technicians with tools as temporary personnel to provide installations services under the supervision of VCU personnel. All materials will be provided by VCU. An hourly rate will be established through a bid process.

For Project Management projects, VCU will seek temporary personnel to provide job planning, estimations, and supervision on a per project basis. Note that a firm providing

project management supervision for a project will **not** be allowed to participate in that project for installation services. An hourly rate will be established through a bid process.

Firms will be solicited to submit pricing for projects based on the Areas of Interest indicated in this section. Firms will be invited to submit pricing for individual projects based on the eight project categories listed. Please indicate which of the six (6) project classifications that interest your firm. Contractors may choose one, or all, of the six (6) project categories.

(Check all that apply):

Conduit  Yes  No

Cat5e/6e+  Yes  No

Fiber Optics  Yes  No

Video/Cabling  Yes  No

Labor Only Jobs  Yes  No

Project Management  Yes  No

c. Methodology/Approach and Experience/Qualifications:

- i. Contractor certifies that the firm has been providing similar goods/services for a period of not less than two (2) consecutive years.

State number of years firm has provided conduit/cable installations services:

\_\_\_\_\_ years

Has the firm provided these services in the Richmond Metropolitan area?

\_\_\_ Yes \_\_\_ No

Please list any State Agencies and/or Institutions of Higher Education that you have performed services for.

- ii. Contractor certifies that the firm has the ability to comply with projects identified during the term taking into account other business commitments.

\_\_\_Yes \_\_\_No

- iii. For Category 6e+ UTP cabling, the primary contractor and any subcontractor shall be certified to provide a 16 year Cabling System Warranty from the Siemon Company. A contractor that is in the process of gaining certification or is scheduled to be certified will be considered responsive. Written documentation from the Siemon Company shall be submitted with the Offeror's proposal. Certifications, when received from Siemon, must be submitted to VCU. The contractor shall not be allowed to bid on or perform Category 5e/6e+ wiring projects until certifications are received by VCU. The on-site supervisor and at least one installer on the job site, at all times, shall be certified in the installations, testing, and certification of Category 5e/6e+ UTP wiring from the Siemon Company. In-house or on the job training will not be acceptable. Provide the names and qualifications of UTP installers and on-site supervisors who hold this certification and attach a copy of the appropriate training certificates for each person listed.

Note: Certifications granted through the Siemon Company will be limited to VCU cabling projects. The contact phone number for Bruce Booberg is 410-991-3964.

- iv. List at least three (3) prior Category 6e+ UTP cabling projects and include information relative to the size of the project, scope of work, location, dates, and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project. ( Do not include projects completed at VCU).
- d. For fiber optic cabling, the Contractor certifies that the on-site supervisor and at least one installer on the job site, at all times, shall be trained in the installations, termination, and testing of fiber optic cables. Training shall be from a nationally recognized certification authority (BICSI, Siemon, etc). In-house or on the job training will not be acceptable.
    - i. Provide the names and qualifications of your firm's fiber installers and attach the appropriate training certificates for each person listed.
    - ii. Provide at least three (3) prior fiber optic cabling projects and include information relative to the size of the project, scope of work, location, dates and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project. (Do not include VCU projects.)
  - e. Project Management: Project managers must have a minimum of two years of recent and pertinent experience and accredited technical training in the work they are supervising. RCDD Certification is preferred. Provide resumes for your firm's proposed project managers.
    - i. List at least three (3) prior Project Management cabling projects and include information relative to the size of the project, scope of work, location, dates, and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project.

- f. The Contractor shall have a plan in place to coordinate with VCU and ensure timely, effective completion of projects. Please address your firm's methods of coordination of services and organization and management of projects.
- g. Quality Assurance: Describe your approach to assuring that the components and installations meet VCU requirements. The objective is to specify a solid, thorough approach to quality assurance, from acquisition of materials to final testing procedures, which shall be consistently applied to all projects.
- h. Testing Procedures: Describe the final testing and inspection procedures that shall be utilized for installations categories to include conduit, Category 6e+ UTP, fiber optic cable, video cable.
- i. Contractor should provide a list of at least three (3) references where similar goods and/or services have been provided in the past two (2) years. Only one (1) reference from VCU is acceptable. Each reference shall include the name of the organization, the complete mailing address, the name of the contact person, an email address if available, and telephone number. Firms should submit at least one reference for a project greater than \$100,000. At the sole option of the University, VCU may elect to request inspection privileges for installed jobs from the references submitted.
- j. List all construction-related lawsuits (other than labor or personal injury litigation) filed by, or against, the Contractor in the last five (5) years, and identify the nature of the claim, the amount of dispute, the parties, and the ultimate resolution of the lawsuit.
- k. Please submit a copy of your insurance certificate and provide your insurance Experience Modification Rate (EMR). Upon award, a certificate of insurance naming the Commonwealth of Virginia as an additional insured will be required.
- l. Information demonstrating the Contractor's financial stability to include:
  - 1) Full name, address, and telephone number of the organization;
  - 2) Date the firm was established;
  - 3) Ownership (e.g. public company, partnership, subsidiary, etc.);
  - 4) If incorporated, provide the state of incorporation;
  - 5) Number of full-time employees on January 1st for the last three (3) years or for the duration the firm has been in business, whichever is less.

**VIII. EVALUATION AND AWARD CRITERIA:**

Proposals will be evaluated based upon the information provided in the Offeror's Proposal using the following criteria: Offeror's qualifications and experience (40 points); methodology/approach to providing the requirements stated herein (40 points); and the Offeror's status as a Virginia certified SWaM Business or the Offeror's plans to utilize Virginia DSBSD-certified SWaM Businesses in the Offeror's performance of the contract (20 points). Selection shall be made of two or more Offerors deemed to be fully qualified and best suited among those submitting proposals. Negotiations shall be conducted with Offerors so selected. After negotiations have been conducted with each Offeror so selected, VCU shall select the Offeror which, in its opinion, has made the best offer, and shall award the contract to that Offeror. VCU reserves the right to make multiple awards from the solicitation. The University may cancel this Request for Proposals or reject Proposals at any time prior to an award, and is not required to furnish a statement of the reason why a particular Proposal was not deemed to be the most advantageous (Governing Rules Section 49.D). Should the University determine in writing and in its sole discretion that only one Offeror has made the best proposal, a Contract may be negotiated and awarded to that Offeror. The award document will be a Contract incorporating by

reference all the requirements, terms and conditions of the RFP, and the Offeror's response thereto. VCU reserves the right to award to multiple offerors, should such an award benefit the University.

Notice of Award(s) or Notice of Intent to Award may be accessed electronically at <http://www.eva.virginia.gov>.

**IX. REPORTING AND DELIVERY REQUIREMENTS:**

**By submitting a Proposal, Offerors certify that all information provided in response to the Request for Proposals is true and accurate. Failure to provide information required by this Request for Proposals will ultimately result in rejection of the Proposal.**

It is the policy of the Commonwealth of Virginia that 42% of its purchases be made from small businesses to contribute to the establishment, preservation, and strengthening of small businesses, and businesses owned by women and minorities, and to encourage their participation in VCU procurement activities. The Commonwealth encourages Contractors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts or other contractual opportunities.

**Use of Subcontractors:** If the Offeror intends to use subcontractors to perform any portion of the work described in this RFP, the Offeror must clearly so state. VCU is placing an increased emphasis on its SWaM (Small, Women, and Minority Owned) business program and is interested in identifying any potential opportunities that may be available to engage SWaM vendors to be certified by the Virginia Department of Small Business and Supplier Diversity (DSBSD) through new or existing contracts. **Identify and list any such opportunities that your firm would commit to if awarded this Contract in Appendix 1- Participation in VCU Procurement Transactions Small Businesses and Businesses Owned by Women and Minority.** The Offeror's response must include a description of which portion(s) of the work will be sub-contracted out and the names and addresses of potential Subcontractor(s) under the Contract.

**REPORT ON THE PARTICIPATION OF SMALL BUSINESSES AND BUSINESSES  
OWNED  
BY WOMEN AND MINORITIES**

Unless the Contractor is a DSBSD certified small business, the Contractor shall submit quarterly reports on the direct involvement of Department of Small Business and Supplier Diversity (DSBSD) certified SWaM Businesses in the performance of the Contract. The report shall specify the actual dollars spent to date with Small Businesses, Women-Owned Businesses, and Minority-Owned Businesses based upon the Contractor's commitment for utilization of DSBSD SWaM Businesses.

The Contractor shall provide this information to:

Virginia Commonwealth University  
Procurement Services Office  
Attn: SWaM Coordinator  
912 W. Grace Street, POB 980327  
Richmond, VA 23284  
Email: [swamreporting@vcu.edu](mailto:swamreporting@vcu.edu)

Failure to submit the required information will be considered a contract compliance issue and will be addressed accordingly. In addition, failure to submit the required information will result in invoices being returned without payment.

X. **GENERAL TERMS AND CONDITIONS:**

- A. **PURCHASING MANUAL:** This RFP is subject to the provisions of the Commonwealth of Virginia's Purchasing Manual for Institutions of Higher Education and their Vendors and any revisions thereto, which are hereby incorporated into this contract in their entirety. A copy of the manual is available for review at the VCU Procurement Services Office. In addition, the manual may be accessed electronically at <http://procurement.vcu.edu/> or a copy can be obtained by calling VCU Procurement Services at (804) 828-1077.
- B. **APPLICABLE LAW AND COURTS:** This RFP and any resulting Contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The Contractor shall comply with all applicable federal, state and local laws, rules and regulations.
- C. **ANTI-DISCRIMINATION:** By submitting their Proposals, Offerors certify to the Commonwealth and to VCU that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and Section 2.2-4311 of the *Virginia Public Procurement Act*. If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (*Code of Virginia*, § 2.2-4343.1).

In every Contract over \$10,000 the provisions in 1. and 2. below apply:

1. During the performance of this Contract, the Contractor agrees as follows:
  - a) Virginia Commonwealth University is an equal opportunity/affirmative action institution providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability. As such, the Contractor will not discriminate against any employee or applicant for employment because of age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability or any other basis prohibited by state law related to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
  - b) The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
  - c) Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.



2. The Contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
- D. ETHICS IN PUBLIC CONTRACTING: By submitting their Proposals, Offerors certify that their Proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other Offeror, supplier, manufacturer or subcontractor in connection with their Proposal, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.
  - E. IMMIGRATION REFORM AND CONTROL ACT OF 1986: By submitting their Proposals, Offerors certify that they do not and will not during the performance of this Contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986.
  - F. DEBARMENT STATUS: By submitting their Proposals, Offerors certify that they are not currently debarred by the Commonwealth of Virginia from submitting proposals on contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.
  - G. ANTITRUST: By entering into a Contract, the Contractor conveys, sells, assigns, and transfers to the Commonwealth of Virginia all rights, title and interest in and to all causes of the action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the Commonwealth of Virginia under said contract.
  - H. MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS: Failure to submit a Proposal on the official VCU Form provided for that purpose may be a cause for rejection of the Proposal. Modification of, or additions to, the General Terms and Conditions of the solicitation may be cause for rejection of the Proposal; however, the Commonwealth reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a Proposal.
  - I. PAYMENT:
    1. To Prime Contractor:
      - a) Invoices for items ordered, delivered and accepted shall be submitted by the Contractor directly to the payment address shown on the purchase order/Contract. All invoices shall show the VCU Contract number and/or purchase order number; social security number (for individual Contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).
      - b) Any payment terms requiring payment in less than thirty (30) days will be regarded as requiring payment thirty (30) days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than thirty (30) days, however.
      - c) All goods or services provided under this Contract or purchase order, that are to be paid for with public funds, shall be billed by the Contractor at the contract price, regardless of which public institution is being billed.

- d) The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.
- e) Unreasonable Charges. Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges which appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, VCU shall promptly notify the contractor, in writing, as to those charges which it considers unreasonable and the basis for the determination. A Contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification. The provisions of this Section do not relieve VCU of its prompt payment obligations with respect to those charges that are not in dispute (Code of Virginia, § 2.2-4363).

2. To Subcontractors:

- a) Contractor awarded a contract under this RFP is hereby obligated:
    - i. To pay the Subcontractor(s) within seven (7) days of the Contractor's receipt of payment from VCU for the proportionate share of the payment received for work performed by the Subcontractor(s) under the contract; or
    - ii. To notify VCU and the Subcontractor(s), in writing, of the Contractor's intention to withhold payment and the reason.
  - b) The Contractor is obligated to pay the Subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the Contractor that remain unpaid seven (7) days following receipt of payment from VCU, except for amounts withheld as stated in 2. above. The date of mailing of any payment by U.S. Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier Contractor performing under the primary contract. A Contractor's obligation to pay an interest charge to a Subcontractor may not be construed to be an obligation of VCU.
- J. PRECEDENCE OF TERMS: Paragraphs A-J of these General Terms and Conditions shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions in this solicitation, the Special Terms and Conditions shall apply.
- K. QUALIFICATIONS OF OFFERORS: VCU may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror to perform the services/furnish the goods and the Offeror shall furnish to VCU all such information and data for this purpose as may be requested. VCU reserves the right to inspect Offeror's physical facilities prior to award to satisfy questions regarding the Offeror's capabilities. VCU further reserves the right to reject any Proposal if the evidence submitted by, or investigations of, such Offeror fails to satisfy VCU that such Offeror is properly qualified to carry out the obligations of the Contract and to provide the services and/or furnish the goods contemplated therein.
- L. TESTING AND INSPECTION: VCU reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications.

- M. ASSIGNMENT OF CONTRACT: A Contract shall not be assignable by the Contractor in whole or in part without the written consent of the VCU Director of Procurement Services.
- N. CHANGES TO THE CONTRACT: Changes can be made to the Contract in any one of the following ways:
1. The parties may agree in writing to modify the scope of the Contract. An increase or decrease in the price of the Contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the Contract.
  2. The VCU Procurement Services Department may order changes within the general scope of the Contract at any time by written notice to the Contractor. Changes within the scope of the contract include, but are not limited to, things such as services to be performed, the method of packing or shipment, and the place of delivery or installation. The Contractor shall comply with the notice upon receipt. The Contractor shall be compensated for any additional costs incurred as the result of such order and shall give VCU a credit for any savings. Said compensation shall be determined by one of the following methods:
    - a) By mutual agreement between the parties in writing; or
    - b) By agreeing upon a unit price or using a unit price set forth in the Contract, if the work to be done can be expressed in units, and the Contractor accounts for the number of units of work performed, subject to the VCU's right to audit the Contractor's records and/or to determine the correct number of units independently; or
    - c) By ordering the Contractor to proceed with the work and keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the Contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The Contractor shall present VCU with all vouchers and records of expenses incurred and savings realized. VCU shall have the right to audit the records of the Contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to VCU within thirty (30) days from the date of receipt of the written order from VCU. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the Contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes Clause of this Contract or, if there is none, in accordance with the disputes provisions of the Commonwealth of Virginia's Purchasing Manual for Institutions of Higher Education and Their Vendors. Neither the existence of a claim or a dispute resolution process, litigation or any other provision of this Contract shall excuse the Contractor from promptly complying with the changes ordered by the VCU Procurement Service Office or with the performance of the Contract generally.
- O. DEFAULT: In case of failure to deliver goods or services in accordance with the Contract terms and conditions, VCU after due oral or written notice, may procure them from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which VCU may have in law or equity.
- P. USE OF BRAND NAMES: Unless otherwise provided in this RFP, the name of a certain brand, make or manufacturer does not restrict Offerors to the specific brand, make or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article, which the public body, in its sole discretion, determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

The Offeror is responsible to clearly and specifically identify the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable VCU to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Unless the Offeror clearly indicates in its proposal that the product offered is an "equal" product, such proposal will be considered to offer the brand name product referenced in the RFP.

- Q. TRANSPORTATION AND PACKAGING: By submitting their Proposals, all Offerors certify and warrant that the price offered for F.O.B. Destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, packing and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with purchase order number, commodity description, and quantity. Further, Offeror shall bear the risk of loss until the goods and equipment until VCU accepts Delivery of them.
- R. INSURANCE: By signing and submitting a Proposal under this RFP, the Offeror certifies that if awarded the Contract, it will have the following insurance coverages at the time the Contract is awarded. For construction contracts, if any Subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with §§ 2.2-4332 and 65.2-800 et seq. of the *Code of Virginia*. The Offeror further certifies that the Contractor and any Subcontractors will maintain these insurance coverages during the entire term of the Contract and that all insurance coverage will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

Minimum Insurance Coverages and Limits Required for Most Contracts:

1. Worker's Compensation - Statutory requirements and benefits. Coverage is compulsory for employers of three or more employees, to include the employer. Contractors who fail to notify VCU of increases in the number of employees that change their workers' compensation requirements under the *Code of Virginia* during the course of the Contract shall be in noncompliance with the Contract.
  2. Employers Liability - \$100,000.
  3. Commercial General Liability - \$1,000,000 per occurrence. Commercial General Liability is to include bodily injury and property damage, personal injury and advertising injury, products and completed operations coverage. VCU must be named as an additional insured and so endorsed on the policy.
  4. Automobile Liability - \$1,000,000 per occurrence. (Only used if motor vehicle is to be used in the contract.)
- S. ANNOUNCEMENT OF AWARD: Upon the award or the announcement of the decision to award a contract as a result of this RFP, VCU will publicly post such notice electronically at <http://www.eva.virginia.gov> for a minimum of ten (10) days.
- T. DRUG-FREE WORKPLACE: During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violation of such prohibition; (iii) state in all solicitations or

advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every Subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Subcontractor and/ or Vendor.

For the purposes of this section, “*drug-free workplace*” means a site for the performance of work done in connection with a specific Contract awarded to a Contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the Contract.

- U. NONDISCRIMINATION OF CONTRACTORS: A Bidder, Offeror, or Contractor shall not be discriminated against in the solicitation or award of this Contract because of race, religion, color, sex, national origin, age, disability, or against faith-based organizations or any other basis prohibited by state law relating to discrimination in employment. If the award of this Contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this Contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.
  
- V. eVA BUSINESS-TO-GOVERNMENT VENDOR REGISTRATION, CONTRACTS, AND ORDERS: The eVA Internet electronic procurement solution, website portal [www.eVA.virginia.gov](http://www.eVA.virginia.gov), streamlines and automates government purchasing activities in VCU. The eVA portal is the gateway for vendors to conduct business with VCU Institution and other public bodies. All Vendors desiring to provide goods and/or services to VCU shall participate in the eVA Internet e-procurement solution by completing the free eVA Vendor Registration. All Bidders or Offerors must register in eVA and pay the Vendor Transaction Fees specified below; failure to register will result in the bid/proposal being rejected.

Vendor Transaction Fees are determined by the date the original purchase order is issued and are as follows:

1. For orders issued July 1, 2014 and after, the Vendor Transaction Fee is:
  - a) DSBSD-certified Small Businesses: 1%, capped at \$500 per order.
  - b) Businesses that are not DSBSD-certified Small Businesses: 1%, capped at \$1,500 per order.
  
2. For orders issued July 1, 2014 the vendor transaction fees can be found at [www.eVA.virginia.gov](http://www.eVA.virginia.gov)

The specified vendor transaction fee will be invoiced, by the Commonwealth of Virginia Department of General Services, approximately thirty (30) days after the corresponding purchase order is issued and payable thirty (30) days after the invoice date. Any adjustments (increases/decreases) will be handled through purchase order changes.

- W. FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA). The Selected Offeror/Vendor acknowledges that for the purposes of this Contract it will be designated as a “school official” with “legitimate educational interests” in the University education records, as those terms have been defined under FERPA and its implementing regulations, and the Selected Firm/Vendor agrees to abide by the limitations and requirements imposed on school officials. Selected Firm/Vendor will

use the education records only for the purpose of fulfilling its duties under this Contract for University's and its students' benefit, and will not share such data with or disclose it to any third party except as provided for in this Contract, required by law, or authorized in writing by the University.

**XI. SPECIAL TERMS AND CONDITIONS:**

- A. ADVERTISING: In the event a contract is awarded for supplies, equipment, or services resulting from this proposal, no indication of such sales or services to Virginia Commonwealth University will be used in product literature or advertising. The Contractor shall not state in any of the advertising or product literature that the Commonwealth of Virginia or any agency or institution of the Commonwealth has purchased or uses its products or services.
- B. AUDIT: The Contractor shall retain all books, records, and other documents relative to this contract for five (5) years after final payment, or until audited by the Commonwealth of Virginia, whichever is sooner. The agency, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period.
- C. AVAILABILITY OF FUNDS: It is understood and agreed between the parties herein that the agency shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.
- D. PROPOSAL ACCEPTANCE PERIOD: Any proposal in response to this solicitation shall be valid for sixty (60) days. At the end of the sixty (60) days, the proposal may be withdrawn at the written request of the Offeror. If the proposal is not withdrawn at that time it remains in effect until an award is made or the solicitation is cancelled.
- E. PROPOSAL PRICES: Proposal prices shall be in the form of a firm price for each item during the contract period.
- F. CANCELLATION OF CONTRACT: The purchasing agency reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon sixty (60) days written notice to the Contractor. In the event the initial contract period is for more than twelve (12) months, the resulting contract may be terminated by either party, without penalty, after the initial twelve (12) months of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the Contractor of the obligation to deliver and/or perform on all outstanding orders issued prior to the effective date of cancellation.
- G. DRUG FREE WORKPLACE: The Contractor acknowledges and certifies that it understands that the following acts by the Contractor, its employees and/or agents performing services on state property are prohibited:
  - 1. The unlawful manufacture, distribution, dispensing, possession or use of alcohol or other drugs; and
  - 2. Any impairment or incapacitation from the use of alcohol or other drugs (except the use of drugs for legitimate medical purposes).
  - 3. The Contractor further acknowledges and certifies that it understands that a violation of these prohibitions constitutes a breach of contract and may result in default action being taken by the Commonwealth in addition to any criminal penalties that may result from such conduct.

- H. EXTRA CHARGES NOT ALLOWED: The proposal price shall be for complete installation ready for Commonwealth's use, and shall include all applicable freight and installation charges; extra charges will not be allowed.
- I. FINAL INSPECTION: At the conclusion of the work, the Contractor shall demonstrate to the authorized owners representative that the work is fully operational and in compliance with contract specifications and codes. Any deficiencies shall be promptly and permanently corrected by the Contractor at the Contractor's sole expense prior to final acceptance of the work.
- J. IDENTIFICATION OF PROPOSAL: The proposal package should be identified as follows:

From: \_\_\_\_\_

Name of Offeror	Due Date	Time
Street or Box Number	RFP No.	
City, State, Zip Code +4	RFP Title	

Name of Contract / Purchase Officer or Buyer: Amy Anthes

The package should be addressed as directed on Page 2 of the solicitation.

If a proposal is not clearly identified, the Offeror takes the risk that the proposal may be inadvertently opened and the information compromised which may cause the proposal to be disqualified. Proposals may be hand delivered to the designated location in the office issuing the solicitation. No other correspondence or other proposals should be placed in the envelope.

LATE PROPOSALS: To be considered for selection, proposals must be received by the issuing office by the designated date and hour. The official time used in the receipt of proposals is that time on the automatic time stamp machine in the issuing office. Proposals received in the issuing office after the date and hour designated are automatically disqualified and will not be considered. The University is not responsible for delays in the delivery of mail by the U.S. Postal Service, private couriers, or the intrauniversity mail system. It is the sole responsibility of the Offeror to insure that its proposal reaches the issuing office by the designated date and hour.

- K. INDEMNIFICATION: Contractor agrees to indemnify, defend and hold harmless the Commonwealth of Virginia, its officers, agents, and employees from any claims, damages and actions of any kind or nature, whether at law or in equity, arising from or caused by the use of any materials, goods, or equipment of any kind or nature furnished by the Contractor/any services of any kind or nature furnished by the Contractor, provided that such liability is not attributable to the sole negligence of the using agency or to failure of the using agency to use the materials, goods, or equipment in the manner already and permanently described by the Contractor on the materials, goods, or equipment delivered.
- L. LIMITATION OF LIABILITY: To the maximum extent permitted by applicable law, the Contractor will not be liable under this contract for any indirect, incidental, special or consequential damages, or damages from loss profits, revenue, data or use of the supplies, equipment and/or services delivered under this contract. This limitation of liability will not apply, however, to liability arising from: (a) personal injury or death; (b) defect or deficiency caused by willful misconduct or negligence on the part of the Contractor; or (c) circumstances where the contract expressly provides a right to damages, indemnification or reimbursement.
- M. PRIME CONTRACTOR RESPONSIBILITIES: The Contractor shall be responsible for completely supervising and directing the work under this contract and all subcontractors that he may utilize,

using his best skill and attention. Subcontractors who perform work under this contract shall be responsible to the prime Contractor. The Contractor agrees that he is as fully responsible for the acts and omissions of his subcontractors and of persons employed by them as he is for the acts and omissions of his own employees.

- N. RENEWAL OF CONTRACT: This contract may be renewed by the Commonwealth upon written agreement of both parties for 4 (four) successive 1 (one) year periods, under the terms of the current contract, and at a reasonable time (approximately 90 days) prior to the expiration.
- O. SUBCONTRACTS: No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the Contractor desires to subcontract some part of the work specified herein, the Contractor shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The Contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.
- P. WARRANTY (COMMERCIAL): The Contractor agrees that the supplies or services furnished under any award resulting from this solicitation shall be covered by the most favorable commercial warranties the Contractor gives any customer for such supplies or services and that the rights and remedies provided therein are in addition to and do not limit those available to the Commonwealth by any other clause of this solicitation. A copy of this warranty should be furnished with the proposal.
- Q. POLICY OF EQUAL EMPLOYMENT: Virginia Commonwealth University is an equal opportunity/affirmative action employer. Women, Minorities, persons with disabilities are encouraged to apply. The University encourages all vendors to establish and maintain a policy to insure equal opportunity employment. To that end, Offerors should submit along with their proposals, their policy of equal employment.
- R. eVA BUSINESS-TO-GOVERNMENT CONTRACTS AND ORDERS: The solicitation/contract will result in purchase order(s) with the eVA transaction fee specified below assessed for each order.
  - 1. For orders issued July 1, 2011 thru June 30, 2013, the Vendor Transaction Fee is:
    - a) DSBSD-certified Small Businesses: 0.75%, Capped at \$500 per order.
    - b) Businesses that are not DSBSD-certified Small Businesses: 0.75%, Capped at \$1,500 per order.
  - 2. For orders issued July 1, 2013, and after, the Vendor Transaction Fee is:
    - a) DSBSD-certified Small Businesses: 1%, Capped at \$500 per order.
    - b) Businesses that are not DSBSD-certified Small Businesses: 1%, Capped at \$1,500 per order.

The specified vendor transaction fee will be invoiced, by the Commonwealth of Virginia Department of General Services, approximately 30 days after the corresponding purchase order is issued and payable 30 days after the invoice date. Any adjustments (increases/decreases) will be handled through purchase order changes.

The eVA Internet electronic procurement solution, website portal [www.eva.virginia.gov](http://www.eva.virginia.gov), streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies.

Vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution and agree to comply with the following: If this solicitation is for a term contract, may provide an electronic catalog (price list) or index page catalog for items awarded. The format of this electronic catalog shall conform to the eVA Catalog Interchange Format (CIF) Specification that can be accessed and downloaded



from [www.eVA.virginia.gov](http://www.eVA.virginia.gov). Contractors should email Catalog or Index Page information to [eVA-catalog-manager@dgs.virginia.gov](mailto:eVA-catalog-manager@dgs.virginia.gov).

- S. **DETERMINATION OF RESPONSIBILITY:** The Contract will be awarded to the responsive and responsible Offerors with a Proposal, conforming to the RFP, will be most advantageous to VCU, technical and financial factors considered. A responsible Offeror is one who affirmatively demonstrates to VCU that it has adequate financial resources and the requisite capacity, capability, and facilities to perform the Contract, has a satisfactory record of performance on other comparable projects, has a satisfactory record of integrity and business ethics, and is otherwise qualified and eligible to receive award under the solicitation and laws and regulations applicable to the procurement. VCU reserves the right to investigate the capabilities of Offeror, confirm any part of the information furnished by an Offeror, and require other evidence to determine that the Offeror is responsible.
- T. **REJECTION OF PROPOSALS & WAIVER OF MINOR INFORMALITIES/IRREGULARITIES:** VCU reserves the right to reject any or all Proposals in part or in total for any reason, to accept any Proposal if considered best for its interest, and to waive informalities and minor irregularities in Proposals received, commensurate with best public procurement practices.
- U. **AS-BUILT DRAWINGS:** The Contractor shall provide the Commonwealth a clean set of reproducible "as built" drawings and wiring diagrams, marked to record all changes made during installation or construction. The Contractor shall also provide the Commonwealth with maintenance manuals, and parts lists and a copy of all warranties for all equipment. All "as built" drawings and wiring diagrams, maintenance manuals, parts lists and warranties shall be delivered to the Commonwealth upon completion of the work and prior to final payment.
- V. **CONTRACTOR REGISTRATION:** If a contract for construction, removal, repair or improvement of a building or other real property is for one hundred and twenty thousand dollars (\$120,000) or more, or if the total value of all such contracts undertaken by the offeror within any 12-month period is seven hundred and fifty thousand dollars (\$750,000) or more, the offeror is required under Title 54.1-1100, *Code of Virginia* (1950), as amended, to be licensed by the State Board of Contractors as a "CLASS A CONTRACTOR". If such a contract is for seventy-five hundred dollars (\$7,500) or more but less than one hundred and twenty thousand dollars (\$120,000), or if the total value of all such contracts undertaken by offeror within any 12-month period is between one hundred and fifty thousand dollars (\$150,000) and seven hundred and fifty thousand dollars (\$750,000), the offeror is required to be licensed as a "CLASS B CONTRACTOR". If such a contract is for one thousand dollars (\$1,000) or more but less than seventy-five hundred dollars (\$7,500), or if the contractor does less than \$150,000 in business in a 12-month period, the offeror is required to be licensed as a "CLASS C CONTRACTOR". The board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors. The offeror shall place on the outside of the envelope containing the proposal and shall place in the proposal over his signature whichever of the following notations is appropriate, inserting his contractor license number:

Licensed Class A Virginia Contractor No. \_\_\_\_\_ Specialty: \_\_\_\_\_  
Licensed Class B Virginia Contractor No. \_\_\_\_\_ Specialty: \_\_\_\_\_  
Licensed Class C Virginia Contractor No. \_\_\_\_\_ Specialty: \_\_\_\_\_

If the offeror shall fail to provide this information on his proposal or on the envelope containing the proposal and shall fail to promptly provide said contractor license number to the Commonwealth in writing when requested to do so before or after the opening of proposals, he shall be deemed to be in violation of Section 54.1-1115 of the *Code of Virginia* (1950), as amended, and his proposal will not be considered.

If an offeror shall fail to obtain the required license prior to submission of his proposal, the proposal shall not be considered.

- W. CONTRACTOR'S TITLE TO MATERIALS: No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sales or other agreement by which an interest is retained by the seller. The Contractor warrants that he has clear title to all materials and supplies for which he invoices for payment.
- X. DELIVERY AND STORAGE: It shall be the responsibility of the Contractor to make all arrangements for delivery, unloading, receiving and storing materials in the building during installation. The Owner will not assume any responsibility for receiving these shipments. Contractor shall check with the Owner and make necessary arrangements for security and storage space in the building during installation.
- Y. GRAMM-LEACH-BLILEY ACT:  
The Contractor shall comply with the Act by implementing and maintaining appropriate safeguards to protect and prevent unauthorized release of student, faculty and staff nonpublic information. Nonpublic information is defined as social security numbers, or financial transactions, bank, credit and tax information.
- Z. PROTEST: Any Offeror who desires to protest the award or decision to award a Contract shall submit the protest in writing to:

Director of Procurement Services  
Virginia Commonwealth University  
912 West Grace, 5<sup>th</sup> Floor  
Richmond, VA 23284

VCU will announce the award utilizing the Commonwealth of Virginia's e-Procurement system (eVA). The protest must be received no later than ten (10) days after the award or the announcement of the decision to award, whichever occurs first. However, if the protest of any actual or potential Offeror depends in whole or in part upon information contained in public records pertaining to the procurement transaction that are subject to inspection under the Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia Governed by Subchapter 3 of the Restricted Higher Education Financial and Administrative Operations Act., Chapter 4.10 (§23-38.88 et seq) of Title 23 of the Code of Virginia, §34, then the time within which the protest shall be submitted shall expire ten (10) days after those records are available for inspection by such Offeror under §34, or at such later time as provided in this section.

VCU Notices of Award(s) or Notices of Intent to Award may be accessed electronically at <http://www.eva.virginia.gov>.

No protest shall lie for a claim that the selected Offeror is not a responsible Offeror.

The written protest shall include the basis for the protest and relief sought.

The VCU Director of Procurement Services shall issue a decision in writing within ten (10) days of receipt stating the reasons for the action taken. This decision shall be final unless the Offeror appeals within ten (10) days of receipt of the written decision by instituting legal action as provided in Section 54 of the Governing Rules.

Nothing in this paragraph shall be construed to permit a proposer to challenge the validity of the terms or conditions of the RFP.

"Days" as used in this paragraph refer to calendar days. If a deadline falls on a Saturday or Sunday, the next business day shall be considered to be the deadline.

XII. NON-CAPITAL OUTLAY TERMS AND CONDITIONS: These terms and conditions will apply to any competitive bid process after award of contract.

- A. DEFINITIONS: Whenever used in this solicitation or in the Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural and the male and female gender thereof:
1. Agency: The term, Agency, unless otherwise indicated, shall mean the Owner.
  2. Commonwealth: The term "Commonwealth" shall mean the Owner which is the Commonwealth of Virginia through the governing Body, the Board, the Building Committee or other agent with authority to execute the contract for the institution or agency involved. The Commonwealth's Agent is the official with the authority to sign the contract on behalf of the Commonwealth.
  3. Construction: As used in these documents shall include new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon buildings and ancillary facilities owned or to be acquired by the Commonwealth and any draining, dredging, excavation, grading or similar work upon real property.
  4. Contractor: The person, firm or corporation named as such in the contract and includes the plural number and the feminine gender when such are named in the contract as the Contractor.
  5. Defective: An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspections, standard, test or approval referred to in the Contract Documents, or has been damaged prior to final payment.
  6. Emergency: Any unforeseen combination or circumstances or a resulting state that poses imminent danger to health, life or property.
  7. Final Acceptance: The Agency's acceptance of the Project from the Contractor upon confirmation from the Project Manager and Project Inspector and the Contractor that the project is totally complete in accordance with the contract requirements and that all defects have been eliminated. Final acceptance is confirmed by the making of final payment of the contract amount including any change order or adjustment thereto.
  8. Notice: All written notices, demands, instructions, claims, approvals and disapprovals required to obtain compliance with the Contract requirements. Any written notice by either party to the Contract shall be sufficiently given if delivered to or at the last known business address of the perform, firm or corporation constituting the party to the Contract, or to his, their or its authorized agent, representative or officer, or when enclosed in a postage prepaid envelope addressed to such last known business address and deposited in a United States mailbox.
  9. Notice to Proceed: A written notice given by the Owner to the Contractor fixing the date on which the Contract time will commence for the Contractor to begin the prosecution of the Work in accordance with the requirements of the Contract Documents.
  10. Owner: The Commonwealth of Virginia, i.e., an agency, institution, or department, with whom the Contractor has entered into a contract and for whom the Work or services is to be provided.

11. Project Inspector: One or more individuals employed by the Owner to inspect the Work and/or to act as clerk of works to the extent required by the Owner. The Owner shall notify the Contractor of the appointment of such Project Inspector(s).
12. Provide: Shall mean furnish and install ready for its intended use.
13. Submittals: All drawings, diagrams, illustrations, schedules and other data required by the Contract Documents which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by the Contractor to illustrate material or equipment for some portion of the Work.
14. Subcontractor: An individual, partnership or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of the Work. It includes one who provides on-site labor but does not include one who only furnishes or supplies materials for the project.
15. Substantial Completion: The Work which is sufficiently complete, in accordance with the Contract Documents, so that the project can be utilized by the Owner for the purposes for which it is intended.
16. Supplier: A manufacturer, fabricator, distributor, material man or vendor who provides material for the project but does not provide on-site labor.
17. Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which are or have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
18. Work: The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

**B. CONTRACT DOCUMENTS:**

1. The Contract entered into by the parties shall consist of the Request for Proposals; the proposal submitted by the Contractor; General and Conditions, these Additional Terms and Conditions; the Special Terms and Conditions; the drawings, if any; the specifications; and all modifications and addenda to the foregoing documents; the request for quote or Invitation for Bids for individual projects; all of which shall be referred to collectively as the Contract Documents.
2. All time limits stated in the Contract Documents, including but not limited to the time for completion of the Work, are of the essence of the Contract.
3. Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all, except that a provision clearly designed to negate or alter a provision contained in one or more of the other Contract Documents shall have the intended effect.

C. LAWS AND REGULATIONS:

1. The Contractor complies with all laws, ordinances, regulations and lawful orders of any public authority bearing on the performance of the Work and shall give all notices required thereby.
2. The Contract and all other contracts and subcontracts are subject to the provisions of Articles 3 and 5, Chapter 4, Title 40.1, *Code of Virginia*, relating to labor unions and the "right to work". The Contractor and its Subcontractors, whether residents or nonresidents of the Commonwealth, who perform any work related to the project shall comply with all of the said provisions.
3. The provisions of all regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia and as issued by the Department of Labor and Industry under Title 40.1 of the *Code of Virginia* shall apply to all work under this Contract. Inspectors from the Department of Labor of Industry shall be granted access to the Work for inspection without first obtaining a search warrant from the court.
4. Building Permit: Because this is a project of the Commonwealth of Virginia, codes or zoning ordinances of local political subdivisions do not apply. Building permits where required will be obtained and paid for by the Owner. This does not include any local license fees, business fees or similar assessments which may be imposed by the appropriate political subdivision. Exceptions to Section XI, Item C.3 are specified in Section IV. Item J.
5. The Contractor, if not licensed as an asbestos, lead paint or mold abatement contractor or an RFS contractor in accordance with Section 54.1-514, *Code of Virginia*, shall have all asbestos lead paint or mold related Work performed by subcontractors who are duly licensed as asbestos contractors or RFS contractors as appropriate for the Work required.

D. PREPARATION AND SUBMISSION OF BIDS: Bids must give the full business address of the Bidder and be signed by him/her with his/her usual signature. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership or any authorized representative, followed by the designation of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the State in which it is incorporated and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. A proposal by a person who affixes to the signature the word "President", "Secretary", "Agent" or other designation without disclosing the principal, may be held to be the proposal of the individual signing. When requested by the Commonwealth, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.

E. WITHDRAWAL OR MODIFICATION OF BIDS: Bids may be withdrawn or modified by written, telefaxed, or telegraphic notice received from Bidders prior to the time fixed for proposal receipt. The withdrawal or modification may be made by the person signing the proposal or by an individual(s) who is authorized by him on the face of the proposal. Written modifications may be made on the proposal form itself, on the envelope in which the proposal is enclosed, or on a separate document. Written modifications, whether the original is delivered or telefaxed, must be signed by the person making the modification or withdrawal, and telegraphic messages must be sent in the name of said person.

F. RECEIPT AND OPENING OF BIDS:

1. It is the responsibility of the Bidder to assure that the proposal is delivered to the place designated for receipt of bids and prior to the time set for receipt of bids. No bids received after the time designated for receipt of bids shall be considered.
2. Bids will be opened at the time and place stated in the advertisement, and their contents made public for the information of Bidders and others interested who may be present either in person or by representative. The officer or agent of the Owner, whose duty it is to open them, will decide when the specified time has arrived. No responsibility will be attached to any officer or agent for the premature opening of a proposal not properly addressed and identified.
3. The provisions of Section 34 of The Governing Rules, as amended, shall be applicable to the inspections of bids received.

G. ERRORS IN BIDS:

1. A Bidder may withdraw his proposal from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the proposal was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a proposal.
2. No proposal may be withdrawn under this section when the result would be the awarding of the contract on another proposal of the same Bidder.
3. No Bidder who is permitted to withdraw a proposal shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn proposal was submitted, without the approval of the contracting authority. The person or firm to whom the contract was awarded and the withdrawing Bidder are jointly liable to the contracting authority in an amount equal to any compensation paid to or for the benefit of the withdrawing Bidder without such approval.
4. If a proposal is withdrawn under authority of this section, the next higher Bidder shall be deemed to be the low Bidder on the project.

H. SUBCONTRACTS:

1. The Contractor shall as soon as practicable after the signing of the Contract, notify the Owner in writing of the names of Subcontractors proposed for the principal parts of the Work. The Contractor shall not employ any Subcontractor that the Owner may, within a reasonable time, object to as unsuitable. The Owner will not direct the Contractor to contract with any particular Subcontractor unless provided in the specifications or Proposal form.
2. The Owner shall, on request, furnish to any Subcontractor, if practicable, the amounts of payments made to the Contractor, the Schedule of Values and Requests for Payment submitted by the Contractor and other documentation submitted by the Contractor which would tend to show what amounts are due and payable by the Contractor to the Subcontractor.
3. The Contractor agrees that he is as fully responsible to the Owner for the acts and omissions of his Subcontractors, Suppliers and invitees upon the site of the project and of persons either directly or indirectly employed by them, as he is for acts and omissions of persons directly employed by him.

I. SEPARATE CONTRACTS:

1. The Owner reserves the right to let other contracts in connection with the project, the work under which may proceed simultaneously with the execution of this Contract. The Contractor shall afford other separate Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work. The Contractor shall cooperate with them and shall take all reasonable action to coordinate his Work with theirs. If the Owner has listed other separate contracts in the Request for Bids which it expects simultaneously with the Work of the Contractor, and has included the estimated timing of such other Contracts in the Request for Bids, the Contractor shall integrate the schedule of those separate contracts into his scheduling. The Contractor shall make every reasonable effort to assist the Owner in maintaining the schedule for all separate contracts. If the Work performed by the separate Contractor is defective or performed so as to prevent this Contractor from carrying out his Work according to the drawings and specifications of this contract, this Contractor shall immediately notify the Owner upon discovering such conditions.
2. If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Sections 18(c) and 18(d) of these Additional Terms and Conditions, the Owner may clean up and charge the cost thereof to the respective Contractors in proportion to their responsibility. If a Contractor disputes the Owner's apportionment of cleanup costs, it shall be that Contractor's burden to demonstrate and prove the correct apportionment.

J. TAXES: The Contractor shall, without additional expense to the Owner, pay all applicable federal, state, and local taxes, fees, and assessments except the taxes, fees, and assessments on the real property comprising the site of the project. If the State Building Official elects to have the local building official inspect the Work as provided by Section 36-98.1 of the *Code of Virginia*, the Owner will pay the resulting fees to the local building official.

K. PATENTS: The Contractor shall obtain all necessary licenses to use for any invention, article, appliance, process, or technique of whatever kind and shall pay all royalties and license fees. The Contractor shall hold and save the Owner, its officers, agents and employees, harmless from any loss or liability for or an account of the infringement of any patent rights in connection with any invention, process, article or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless such invention, process, article or appliance is specifically named in the specifications or drawings as acceptable for use in carrying out the Work. If before using any invention, process, article or appliance named in the specifications or drawings as acceptable for use in carrying out the Work, the Contractor has or acquires information that the same is covered by letters of patent making it necessary to secure the permission of the patentee, or other, for the use of the same, he shall promptly advise the Owner. The Owner may direct that some other invention, process, article or appliance be used. Should the Contractor have reason to believe that the invention, process, article or appliance so specified is an infringement of a patent, and fail to inform the Owner, he shall be responsible for any loss due to the infringement.

L. INSPECTION:

1. All material and workmanship shall be subject to inspection, examination and test by the Owner and its Project Inspector at any and all times during construction. The Project Inspector shall have authority to reject defective material and workmanship and require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefore, and the Contractor shall promptly segregate and remove the rejected material from the premises. If the Contractor fails to proceed at once with replacement of rejected material and/or the correction of defective workmanship, the Owner may, by contract or otherwise, replace such material

and/or correct such workmanship and charge the cost to the Contractor, or may terminate the right of the Contractor to proceed, the Contractor and surety being liable for any damages.

2. Jobsite inspections, tests conducted on site or tests of materials gathered on site, which the Contract requires to be performed by independent testing entities, shall be contracted and paid for by the Owner. Examples of such tests are the testing of cast in-place concrete, foundation materials, soil compaction, pile installations, caisson bearings and steel framing connections. Although conducted by independent entities, the Owner will not contract and pay for tests or certifications of materials, manufactured products or assemblies which the Contract, codes, standards, etc., require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual or ASTM. If there are any fees to be paid for such tests and certifications, they will be paid by the Contractor. The Contractor shall also pay for all inspections, tests, and certifications which the Contract specifically requires him to perform or pay together with any inspections and tests which he chooses to perform for his own quality control purposes. The Contractor shall promptly furnish, without additional charge, all reasonable facilities, labor and materials, necessary and convenient for making such tests. Except as provided in (c) below, whenever such examination and testing finds defective materials, equipment or workmanship, the Contractor shall reimburse the Owner for the cost of reexamination and retesting.
3. Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire Work to make an examination of Work already completed, by removing or tearing out portions of the Work, the Contractor shall on request promptly furnish all necessary facilities, labor and material to expose the Work to be tested to the extent required. If such Work is found to be defective in any respect, due to the fault of the Contractor or his Subcontractors, he shall defray all the expenses of uncovering the Work, of examination and testing, and of satisfactory reconstruction. If, however, such Work is found to meet the requirements of the Contract, the actual cost of the Contractor's labor and material necessarily involved in uncovering the Work, the cost of examination and testing and Contractor's cost of material and labor necessary for replacement shall be paid to the Contractor and he shall, in addition, if completion of the Work has been delayed thereby, be granted a suitable extension of time.
4. The Project Inspector may recommend to the Owner that the Work be suspended when in his judgment the drawings and specifications are not being followed. Any such suspension shall be continued only until the matter in question is resolved to the satisfaction of the Owner. The cost of any such Work stoppage shall be borne by the Contractor unless it is later determined by the Project Inspector that no fault existed in the Contractor's Work.
5. The Project Inspector has no authority to and shall not:
  - a. Authorize deviations from the Contract Documents;
  - b. Enter into the area of responsibility of the Contractor's superintendent
  - c. Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or in regard to safety precautions and programs in connections with the Work;
  - d. Authorize or suggest that the Owner occupy the project, in whole or in part;
  - e. Issue a certificate for payment.

**M. SUPERINTENDENCE BY CONTRACTOR:**

1. The Contractor shall have a competent foreman or superintendent, satisfactory to the Owner, on the job site at all times during the progress of the Work. The Contractor shall be responsible for all construction means, methods, techniques, sequences and procedures for



coordinating all portions of the Work under the Contract except where otherwise specified in the Contract Documents, and for all safety and worker health programs and practices. The Contractor shall notify the Owner, in writing, of any proposed change in superintendent including the reason therefore prior to making such change.

2. The Contractor shall, at all times, enforce strict discipline and good order among the workers on the project, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him/her, or anyone who will not work in harmony with those employed by the Contractor, the Subcontractors, the Owner or the Owner's separate contractors and their subcontractors.
  3. The Owner may, in writing, require the Contractor to remove from the Work any employee the Owner deems to be incompetent, careless, not working in harmony with others on the site, or otherwise objectionable.
- N. ACCESS TO WORK: The Owner, the Owner's inspectors and other testing personnel, and inspectors from the Department of Labor and Industry shall have access at all times to the Work at all times. The Contractor shall provide proper facilities for access and inspection.
- O. AVAILABILITY OF MATERIALS: If material specified in the Contact Documents is not available on the present market, alternate materials may be proposed by the Contractor for approval of the Owner.
- P. CONTRACTOR'S TITLE TO MATERIALS: No materials or supplies for the Work shall be purchased by the Contractor or by any Subcontractor subject to any security interest, installment or sales contract or any other agreement or lien by which interest is retained by the seller or given to a secured party. The Contractor warrants that he has good clear title to all materials and supplies for which he uses in the Work or for which he accepts payment in whole or in part.
- Q. WARRANTY OF MATERIALS AND WORKMANSHIP:
1. The Contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the work under the Contract shall be new, first class, and in accordance with the Contract Documents. The Contractor further warrants all workmanship shall be first class and in accordance with Contract Documents and shall be performed by persons qualified in their respective trades.
  2. Work not conforming to these warranties shall be considered defective.
  3. This warranty of materials and workmanship is separate and independent from and in addition to any other guarantees in this Contract.
- R. USES OF PREMISES AND REMOVAL OF DEBRIS:
1. The Contractor shall:
    - a. Perform his Contract in such a manner as not to interrupt or interfere with the operation of any existing activity on the premises or with the Work of any other Contractor;
    - b. Store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the Work as will not unduly interfere with the progress of his Work or the Work of any other Contractor; and
    - c. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.

2. The Contractor expressly undertakes, either directly or through his Subcontractor(s), to effect all cutting, filling or patching of his Work required to make the same conform to the drawings and specifications, and, except with the consent of the Owner, not to cut or otherwise alter the work of any other Contractor. The Contractor shall not damage or endanger any portion of the Work or premises, including existing improvements, unless called for by the Contractor.
3. The Contractor expressly undertakes, either directly or through his Subcontractor(s), to clean up daily all refuse, rubbish, scrap materials and debris caused by his operation, to the end that at all times the site of the work shall present a neat, orderly and workmanlike appearance. No such refuse, rubbish, scrap material and debris shall be left within the completed Work nor buried on the building site, but shall be removed from the site and properly disposed of in a licensed landfill or otherwise as required by law.
4. The Contractor expressly undertakes, either directly or through his Subcontractor(s), before final payment, to remove all surplus material, false work, temporary structures, including foundations thereof, plants of any description and debris of every nature resulting from this operations and to put the site in a neat, orderly condition; to thoroughly clean and leave reasonably dust free all finished surfaces including all equipment, piping, etc., on the interior of all building included in the Contract; and to thoroughly clean all glass installed under the Contractor the removal of all paint and mortar splatters and other defacements. If a Contractor fails to clean up at the completion of the Work, the Owner may do so and charge for costs thereof to the Contractor.
5. During and at completion of the Work, the Contractor shall prevent site soil erosion, the runoff of silt and/or debris carrying water from the site, and the blowing of debris off the site in accordance with the applicable requirements and standards of the Virginia Erosion and Sediment Control Handbook, latest edition, and of the Contract Documents.
6. The Contractor shall not operate or disturb the setting of any valves, switches or electrical equipment on the service lines to the building except by proper previous arrangement with the Owner. The Contractor shall give ample advance notice of the need for cut-offs which will be scheduled at the convenience of the Owner.

S. PROTECTION OF PERSONS AND PROPERTY:

1. The Contractor expressly undertakes, both directly and through its Subcontractor(s), to take every reasonable precaution at all times for the protection of persons and property which may come on the building site or be affected by the Contractor's operation in connection with the Work.
2. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.
3. The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, issued by the Department of Labor and Industry under Title 40.1 of the *Code of Virginia* shall apply to all work under this Contract.
4. The Contractor shall continuously maintain adequate protection of all of his work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. He shall adequately protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. He shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority, local conditions,

any of the Contract Documents or erected for the fulfillment of his obligations for the protection of persons and property.

5. In an emergency affecting the safety or life of person or of the Work, or of adjoining property, the Contractor, without special instruction or authorization from the Owner, shall act, at his discretion, to prevent such threatened loss or injury. Also, should he, to prevent threatened loss or injury, be instructed or authorized to act by the Owner, he shall so act immediately, without appeal. Any additional compensation or extension of time claimed by the Contractor on account of any emergency work shall be determined as provided in paragraph O. of the General Terms and Conditions.

T. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT:

If the Work should be stopped under an order of any court or other public authority for a period of ninety (90) days through no fault of the Contractor or of anyone employed by the him, or if the Owner should fail to pay to the Contractor within thirty (30) days when no dispute exists as to the sum, then the Contractor may, upon ten (10) calendar days written notice to the Owner, stop work or terminate the Contract and recover from the Owner payment for the cost of the Work actually performed, together with overhead and profit thereon, but profit shall be recovered only to the extent that the Contractor can demonstrate that he would have had profit on the entire contract if he had completed the Work. The Contractor may not receive profit or any other type of compensation for parts of the Work not performed. The Contractor may recover the cost of physically closing down the job site, but no other costs of termination. The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. In no event shall termination of the Contract by the Contractor terminate the obligations of the Contractor's surety on its payment and performance bonds.

U. OWNER'S RIGHT TO TERMINATE THE CONTRACT FOR CAUSE:

1. If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, the Owner may terminate the Contract. If the Contractor should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to Subcontractors or Suppliers of materials or labor, or persistently disregards laws, ordinances or written instructions of the Owner, or otherwise be guilty of a substantial violation of any provision of the Contractor, then the Owner may terminate the Contract.
2. Prior to termination of the Contract, the Owner shall give the Contractor his surety ten (10) calendar days written notice, during which the Contractor and/or his surety may rectify the cause of the termination. If rectified to the satisfaction of the owner within said ten (10) days, the owner may rescind his notice of termination. If it does not, the termination for cause shall become effective at the end of the ten-day (10) notice period. In the alternative, the Owner may postpone the effective date of the termination notice, at its sole discretion, if it should receive reassurances from the Contractor and/or its surety that the causes of termination will be remedied in a time and manner which the Owner finds acceptable. If at any time more than ten (10) days after the notice of termination, the Owner determines that the Contractor and/or its surety has not or is not likely to rectify the causes of termination in an acceptable manner or within the time allowed, then the Owner may immediately terminate the Contract for cause giving written notice to the Contractor and its surety. In no event shall termination for cause terminate the obligations of the Contractor's surety on its payment and performance bonds.
3. Notices of terminations, whether initial or given after a period of postponement, may be served upon the Contractor and the surety by mail or any other means at their last known

places of business in Virginia or elsewhere, by delivery to any officer or management/supervisory employee of either wherever they may be found, or, if so such officer, employee or place of business is known or can be found by reasonable inquiry within three (3) days, by posting the notice at the job site. Failure to accept or pick up registered or certified mail addressed to the last known address shall be deemed to be delivery.

4. Upon termination of the Contractor, the Owner shall take possession of the premises, and of all materials, tools and appliances thereon and finish the Work by whatever method he may expedient. In such case the Contractor shall not be entitled to receive any further payment. If the expense of finishing the Work, including compensation for additional managerial and administrative services, shall exceed the unpaid balance of the Contract price, the Contractor shall pay the difference to the Owner, together with any other expenses of terminating the Contract and having it completed by others.
5. If it should be judicially determined that the Owner improperly terminated this Contract for cause, then the termination shall be deemed to be a termination for the convenience of the Owner.
6. Termination of the Contract under this section is without prejudice to any other right or remedy of the Owner.

V. TERMINATION BY OWNER FOR CONVENIENCE:

1. Owner may terminate this Contract at any time without cause, in whole or in part, upon giving the Contractor notice of such termination. Upon such termination, the Contractor shall immediately cease Work and remove from the project site all of its labor forces and such of its materials as Owner elects not to purchase or to assume in the manner hereinafter provided. Upon such termination, the Contractor shall take such steps as Owner may require to assign to the Owner the Contractor's interest in all Subcontracts and purchase orders designated by Owner. After all such steps have been taken to Owner's satisfaction, the Contractor shall receive as full compensation for termination and assignment the following:
  - a. All amounts then otherwise due under the terms of this Contract.
  - b. Amounts due for work performed subsequent to the latest Request for Payment through the date of termination.
  - c. Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The Contractor shall not be entitled to any compensation for lost profits or for any other type of contractual compensation or damage other than those provided by the preceding sentence. Upon payment of the foregoing, Owner shall have no further obligations to Contractor of any nature.
2. In no event shall termination for the convenience of the Owner terminate the obligations of the Contractor's surety on its payment and performance bonds.

W. GUARANTEE OF WORK:

1. Except as otherwise specified, all work shall be guaranteed by the Contractor against defects resulting from the use of inferior materials, equipment or workmanship for one (1) year from the date of final acceptance of the entire project by the Owner in writing. Equipment and facilities, which have seasonal limitations on their operation, shall be guaranteed for one (1) full year from the date of seasonally appropriate tests and acceptance, in writing, by the Owner.
2. If, within any guarantee period, defects are noticed by the Owner which require repairs or changes in connection with the guaranteed work, those repairs or changes being in the opinion

of the Owner rendered necessary as the result of the use of materials, equipment or workmanship, which are defective, or inferior, or not in accordance with the terms of the Contract, then the Contractor shall, promptly upon receipt of notice from the Owner, such notice being given not more than two weeks after the guarantee period expires, and without expense to the Owner.

- a. Place in satisfactory condition in every particular all of such work and correct all defects therein;
  - b. Make good all damage to the structure or site or equipment or contents thereof, which is the result of the use of materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the Contracts; and
  - c. Make good any work or materials or the equipment and contents of structures or the site disturbed in fulfilling any such guarantee.
3. In any case, where in fulfilling the requirements of the Contract or any guarantee embraced in or required thereby, the Contractor disturbs any work guaranteed under contract, he shall restore such work to a condition satisfactory to the Owner and guarantee such restored work to the same extent as it was guaranteed under such other Contract.
  4. If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expense incurred.
  5. All special guarantees applicable to definite parts of the work that may be stipulated in the specifications or other papers forming a part of the Contract shall be subject to the term of this section during the first year of the life of such special guarantee.
  6. Nothing contained in this section shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including liability for defective work under Section 17 of these additional terms and conditions. This paragraph relates only to the specific obligation of the Contractor contained in this section to correct the work and does not limit the time within which his obligation to comply with the Contract Documents may be sought to be enforced, nor of the time within which proceedings may be commenced to establish the Contractor's liability with respect to his other obligations under this Contract.
  7. In the event the work of the Contract is to be modified by another Contractor, either before or after the Final Inspection, the first Contractor shall remain in all respect under the Guarantee of Work and under any other warranties provided in the contract or by law. However, the Contractor shall not be responsible for any defects in material or workmanship introduced by the Contractor modifying its work. Both the first Contractor and the Contractor making the modifications shall each be responsible solely for the work done by each. The Contractor modifying the earlier work shall be responsible for any damage to or defect introduced into the work which it is modifying. If any Contractor shall claim that another Contractor has introduced defects of materials and/or workmanship into the work of the first, it shall be the burden of the Contractor making the claim to clearly demonstrate the nature and extent of such introduced defects and the responsibility of the other Contractor. Any Contractor modifying the work of another shall have the same burden if he asserts defects to have been caused by the Contractor whose work he is modifying.

**X. ASBESTOS, LEAD PAINT OR MOLD:**

1. This subsection applies to projects involving existing buildings where asbestos, lead paint or mold abatement is not a part of the Work. If the Contractor discovers or inadvertently disturbs any material that may contain asbestos, lead paint or mold that has not been previously identified, that was overlooked during the removal, or which was deemed not to be friable or which was encapsulated, the Contractor shall stop work in the area containing the asbestos, lead paint or mold, secure the area, and notify the Owner immediately by telephone or in person with written notice as soon as possible. The Owner will have the suspect material sampled.

If the sample is positive and must be disturbed in the course of the Work, the Owner will have the material repaired or removed and will pay for the bulk sample analysis.

If the material is disturbed is not with the Contractor's authorized Work and/or Work area or under this Contract, the Contractor will pay for all associated sampling and abatement costs.

2. If asbestos abatement is included as a part of the Work, the Contractor shall assure that the asbestos abatement work is accomplished by those duly licensed in accordance with the specific requirements of the Contract Documents.
3. If asbestos abatement is included as part of the Work, the licensed asbestos Subcontractor shall, in the insurance required, name the Commonwealth of Virginia and the Contractor as additional insureds.

**Y. TRAINING, OPERATION AND MAINTENANCE OF EQUIPMENT:**

1. The Contractor, in conjunction with his Subcontractors and Suppliers, shall provide the Owner's operations and maintenance personnel with instruction and training in the proper operation and maintenance of the equipment and related controls provided or altered in the Work.
2. The Contractor shall provide the Owner with a minimum of two (2) copies of operating, maintenance and parts manuals for all equipment provided in the project. Further specific requirements may be indicated in the specifications.

**Z. DRUG FREE WORKPLACE: The Contractor acknowledges and certifies that it understands that the following acts by the Contractor, its employees and/or agents performing services on state property are prohibited:**

1. The unlawful manufacture, distribution, dispensing, possession or use of alcohol or other drugs; and
2. Any impairment or incapacitation from the use of alcohol or other drugs (except the use of drugs for legitimate medical purposes).

The Contractor further acknowledges and certifies that it understands that a violation of these prohibitions constitutes a breach of contract and may result in default action being taken by the Commonwealth in addition to any criminal penalties that may result from such conduct.

**XIII. CONTRACT ADMINISTRATION:**

Upon award of the contract VCU shall designate, in writing, the name(s) of the Contract Administrator(s) who shall work with the contractor in formulating mutually acceptable plans and

standards for the delivery, installation and on-going service and/or maintenance that may be required.

- A. The Contract Administrator shall use all powers under the contract to enforce its faithful performance. The Contract Administrator shall determine the amount, quality and acceptability of work and shall decide all other questions in connection with the work.
- B. All direction and orders from VCU shall be transmitted through the Contract Administrator, or his designee. However the Contract Administrator shall have no authority to order changes in the work which alter the concept or scope of the work or change the basis for compensation to the contractor.

XIV. **ATTACHMENTS:** Offeror shall complete and submit Appendix I and Appendix II.

- A: Appendix I – Participation In State Procurement Transactions Small Businesses and Businesses Owned By Women and Minorities:

[http://procurement.vcu.edu/media/procurement/pdf/document-library/RFP\\_Website\\_Link\\_Appendix\\_1.pdf](http://procurement.vcu.edu/media/procurement/pdf/document-library/RFP_Website_Link_Appendix_1.pdf)

- B: Appendix II – Invoicing and Payment

[http://procurement.vcu.edu/media/procurement/pdf/document-library/RFP\\_Website\\_Link\\_Appendix\\_2.pdf](http://procurement.vcu.edu/media/procurement/pdf/document-library/RFP_Website_Link_Appendix_2.pdf)

## APPENDIX I

### PARTICIPATION IN STATE PROCUREMENT TRANSACTIONS SMALL BUSINESSES AND BUSINESSES OWNED BY WOMEN AND MINORITIES

The following definitions will be used in completing the information contained in this Appendix.

#### Definitions

- **Small business** is an independently owned and operated business which, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. Nothing in this definition prevents a program, agency, institution or subdivision from complying with the qualification criteria of a specific state program or federal guideline to be in compliance with a federal grant or program.
- **Women-owned business** is a business concern which is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more women, and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority-owned business** is a business concern which is at least 51 percent owned by one or more minorities or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more minorities and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority Individual:** “Minority” means a person who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:
  - “Asian Americans” means all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Marinas, the Philippines, U. S. territory of the Pacific, India, Pakistan, Bangladesh and Sri Lanka and who are regarded as such by the community of which these persons claim to be a part.
  - “African Americans” means all persons having origins in any of the original peoples of Africa and who are regarded as such by the community of which these persons claim to be a part.
  - “Hispanic Americans” means all persons having origins in any of the Spanish speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who are regarded as such by the community of which these persons claim to be a part.
  - “Native Americans” means all persons having origins in any of the original peoples of North America and who are regarded as such by the community of which these persons claim to be a part or who are recognized by a tribal organization.
  - “Eskimos and Aleuts” means all persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia and who are regarded as such in the community of which these persons claim to be a part.



PARTICIPATION BY SMALL BUSINESSES, BUSINESSES OWNED BY WOMEN  
BUSINESSES OWNED BY MINORITIES

This appendix should only be completed by firms that are not Virginia Department of Small Business and Supplier Diversity (DSBSD) certified small businesses.

Offeror certifies that it will involve Small Businesses, Women-Owned Businesses, and/or Minority-Owned Businesses (SWaM) in the performance of this contract either as part of a joint venture, as a partnership, as Subcontractors or as suppliers.

VCU has an overall goal of 42% SWaM participation for all annual purchases and seeks the maximum level of participation possible from all its contractors.

List the names of the SWaM Businesses your firm intends to use and identify the direct role of these firms in the performance of the contract. State whether the firm is a Small Business (SB), Women-Owned (WO), or Minority-Owned (MO).

Name of Businesses:

SB, WO, MO:

Role in contract:

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**Commitment for utilization of DSBSD SWaM Businesses:**

\_\_\_\_\_ % of total contract amount that will be performed by DSBSD certified SWaM businesses.

**Identify the individual responsible for submitting SWaM reporting information to VCU:**

Name Printed: \_\_\_\_\_

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

Phone: \_\_\_\_\_

Firm: \_\_\_\_\_

Offeror understands and acknowledge that the percentages stated above represent a contractual commitment by the Offeror. Failure to achieve the percentage commitment will be considered a breach of contract and may result in contract default.

Acknowledged:

By (*Signature*): \_\_\_\_\_

Name Printed: \_\_\_\_\_

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

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

Note: Small, Minority and/or Women-owned business sub-contractors are required to become certified and maintain certification through the Virginia Department of Small Business and Supplier Diversity (DSBSD; <http://www.sbsd.virginia.gov/swamcert.html> ) to fulfill the Offeror's commitment for utilization.

## APPENDIX II INVOICING AND PAYMENT

### Invoicing:

The Contractor shall submit a fully itemized invoice to Virginia Commonwealth University, Accounts Payable and Support Services, P. O. Box 980327, Richmond, VA 23298-0327, that, at minimum, includes the following information: the Virginia Commonwealth University purchase order number; a description of the goods or services provided; quantities; unit prices; extended prices; and total prices. Payment will be issued in accordance with the payment method selected below and with the Commonwealth of Virginia Prompt Payment Legislation.

Upon request by VCU, the Contractor shall submit invoices electronically using the Ariba Network or other e-commerce channel utilized by VCU; and agrees to comply, within reason, with any future e-commerce initiatives including, but not limited to: procurement, procurement content, sourcing or any other electronic procurement and sourcing solutions.

Questions regarding this method of invoicing should be sent to: [ecommerce@vcu.edu](mailto:ecommerce@vcu.edu).

### Payment:

VCU Procurement Services is automating the payment process to the greatest extent possible. Contractors are encouraged to accept payment electronically through the commercial card program. Please review the payment methods described below and select one for your firm. By selecting the payment method below, Contractor acknowledges that the selected payment method is **not specific to the contract resulting from this solicitation and will apply to all payments made to the Contractor** by Virginia Commonwealth University. For example, if the Contractor has an existing contract(s) and is currently receiving payment by paper check, and the Contractor is now electing to receive payment by the commercial card, **all payments** will be made using the commercial card once the commercial card payment process is implemented for the firm.

### **Payment Methods**

**1. Electronically through a Wells Fargo Visa commercial card:** Payment will be made ten days (10) after receipt of a proper invoice for the amount of payment due, or ten (10) days after receipt of the goods or services, whichever is later.

It is the Contractor's responsibility to contact its banking institutions to determine any credit limit that may restrict the payment of invoices. It is the Contractor's responsibility to have its credit limit raised as necessary to facilitate the timely payment of all invoices. Invoices exceeding the Contractor's credit limit will be returned unpaid.

Failure to accept the commercial card after award of contract will be considered a contract compliance issue and will be addressed accordingly. In addition, invoices will be returned without payment until the Contractor can accept the payment through the commercial card.

Questions regarding this method of payment should be sent to [commcard@vcu.edu](mailto:commcard@vcu.edu).

2. **ACH:** Electronic payment via automated clearing house (ACH) to the vendor provided bank account of record. Payment is processed thirty (30) days after receipt of a proper invoice for the amount of payment due, or thirty (30) days after receipt of the goods or services, whichever is later. Additional information about ACH payments is available at: <http://www.vcu.edu/treasury/VendorACH.htm>.

**Contractor must indicate the method of payment selected:**

\_\_\_\_\_ Commercial Card Payment (Wells Fargo VISA)

\_\_\_\_\_ Automated Clearing House (ACH)

**Invoicing and Payment Method Acknowledgement:**

Signature: \_\_\_\_\_  
Name Printed: \_\_\_\_\_  
Title: \_\_\_\_\_  
Name of Firm: \_\_\_\_\_  
Date: \_\_\_\_\_

Please identify the following contact information for the individual who will serve as the appropriate point of contact within your company to be contacted by VCU Accounts Payable to implement the electronic invoicing and payment processes:

Name of the individual: \_\_\_\_\_  
Title: \_\_\_\_\_  
Mailing address: \_\_\_\_\_  
\_\_\_\_\_  
Email address: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Fax number: \_\_\_\_\_



## RFP - Addendum

---

DATE: April 18, 2017

ADDENDUM NO. 1 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 7406884AA

Commodity/Title: Term Agreements for Network Cabling Services

Issue Date: April 3, 2017

Proposal Due: April 28, 2017, 11:00a.m.

Pre-Proposal Conference: Held April 12, 2017 at 2:00p.m.

**Clarification items from the Pre-Proposal Conference are as follows:**

**Page 15, Section VII, B.2-** Delete in its entirety.

**Page 17, Section VII, B.3.c.iii-** Current Siemon certification or documentation from Siemon that the Offeror is in the process of certification or is scheduled to be certified shall be submitted with the Offeror's proposal.

**Page 18, Section VIII Evaluation and Award Criteria-** The number of contractors selected for negotiations may be more than two as solely determined by VCU.

Awarded contracts will be posted on <http://eva.virginia.gov> and on <https://vascupp.org>

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Amy Anthes

Phone: (804) 828-1070

---

Name of Firm

---

Signature/Title

---

Date



# VCU Procurement Services

## COMMONWEALTH OF VIRGINIA STANDARD CONTRACT

**Contract Number: 7406884AA**

This contract entered into by ABS Technology Architects, hereinafter called the "Contractor" and Commonwealth of Virginia, Virginia Commonwealth University, called the "Purchasing Agency".

**WITNESSETH** that the Contractor and the Purchasing Agency, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

**PERIOD OF THE PERFORMANCE:** From August 1, 2017 through July 31, 2018 with Four (4) successive One (1) year renewal options.

**SCOPE OF CONTRACT:** The Contractor shall provide the goods/services to the Purchasing Agency as set forth in the Contract Documents.

The contract documents shall consist of:

- (1) This signed form;
- (2) The Request for Proposals # 7406884AA dated April 3, 2017 including Addendum 1 dated April 18, 2017;
- (3) The Contractor's Proposal dated April 28, 2017; and
- (4) The Negotiated Modifications dated July 3, 2017.

All of which documents are incorporated herein by reference.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

**CONTRACTOR:**

ABS Technology Architects

By: [Signature]

Name Printed: Hunter Dorroh

Title: CEO

Date: 7/17/2017

**PURCHASING AGENCY:**

Virginia Commonwealth University

By: [Signature]

Name Printed: Brenda Mowen

Title: Director of Procurement

Date: 7/26/17



Term Agreements for Network  
Cabling Services

RFP # 7406884AA


Virginia Commonwealth University

 Due date 04-28-17



Submitted by:  
ABS Technology Architects  
Hunter Dorroh, Owner/ CEO

 757.466.0004

 [hdorroh@abstechnology.com](mailto:hdorroh@abstechnology.com)

**Request for Proposals RFP #7406884AA**

**Issue Date: April 3, 2017**

**Title:** Term Agreements for Network Cabling Services

**Send all Proposals To:** Virginia Commonwealth University  
RFP #7406884AA  
Attention: Amy Anthes  
912 W Grace St, 5th floor  
Richmond, Virginia 23284

**Sealed Proposals Shall Be Received Until: 11:00 a.m. local time on April 28, 2017**

**Direct ALL inquiries concerning this RFP to: Amy Anthes, Senior Buyer, at [aranthes@vcu.edu](mailto:aranthes@vcu.edu)**

**Contract Term will be for one (1) year with four (4) optional one (1) year renewals**

**Questions concerning this RFP must be received via email no later than: April 14, 2017 at 2:00PM EST**

This Request for Proposals & any Addenda are posted on the eVA website at: <http://www.eva.virginia.gov>

HARD-COPY, ORIGINAL PROPOSALS MUST BE RECEIVED IN VIRGINIA COMMONWEALTH UNIVERSITY'S DEPARTMENT OF PROCUREMENT SERVICES ON OR BEFORE THE DATE AND TIME DESIGNATED ON THIS SOLICITATION. ELECTRONIC SUBMISSIONS AND FACSIMILE SUBMISSIONS WILL NOT BE ACCEPTED IN LIEU OF THE HARD-COPY, ORIGINAL PROPOSAL. VENDORS ARE RESPONSIBLE FOR THE DELIVERY OF THEIR PROPOSAL. PROPOSALS RECEIVED AFTER THE OFFICIAL DATE AND TIME WILL BE REJECTED. THE OFFICIAL DATE AND TIME USED IN RECEIPT OF RESPONSES IS THAT TIME ON THE CLOCK OR AUTOMATIC TIME STAMP IN THE DEPARTMENT OF PROCUREMENT SERVICES.

**IF PROPOSALS ARE HAND DELIVERED OR SENT BY FEDEX, UPS, OR ANY OTHER PRIVATE COURIER, DELIVER TO THE ADDRESS NOTED ABOVE: VIRGINIA COMMONWEALTH UNIVERSITY, RFP #7406884AA, ATTENTION: Amy Anthes, 912 W. GRACE ST., 5<sup>TH</sup> FLOOR, RICHMOND, VA 23298-0327. IF USING US MAIL (NOT RECOMMENDED): IF PROPOSALS ARE MAILED VIA US MAIL ONLY, MAIL TO VIRGINIA COMMONWEALTH UNIVERSITY, RFP#7406884AA Attn: Amy Anthes, PO BOX 980327, RICHMOND, VA 23298-0327. THE RFP NUMBER, DATE AND TIME OF PROPOSAL SUBMISSION DEADLINE, AS REFLECTED ABOVE, MUST CLEARLY APPEAR ON THE FACE OF THE RETURNED PROPOSAL PACKAGE.**

In Compliance With This Request for Proposals And To All Conditions Imposed Therein and Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services Described Herein In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation. Furthermore, The Undersigned Agrees Not To Start Any Work Relative To This Particular Solicitation Until A Resulting Formal Signed Purchase Order Is Received By The Contractor From University's Department of Procurement Services. Any Work Relative To This Request for Proposals Performed By The Contractor Prior To Receiving A Formal Signed Purchase Order Shall Be At The Contractor's Own Risk And Shall Not Be Subject To Reimbursement By The University.

**Signature below constitutes acknowledgement of all information contained through links referenced herein.**

**NAME AND ADDRESS OF COMPANY:**

ABS Technology Date: 4/28/2017  
2809 S Lynnhaven Rd, Ste 250 By (*Signature In Ink*): \_\_\_\_\_  
Virginia Beach, VA Zip Code 23452 Name Typed: Noel Barber  
E-Mail Address: hdorroh@abstechnology.com Title: Executive Vice President, Engineering Services  
Telephone: ( 757 ) 466-0004 Fax Number: ( 757 ) 466- 0600  
**Toll free, if available** **Toll free, if available**  
DUNS NO.: 145833526 FEI/FIN NO.: 54-1954271

REGISTERED WITH eVA:  YES  NO SMALL BUSINESS:  YES  NO  
VIRGINIA DSBSD CERTIFIED:  YES  NO MINORITY-OWNED:  YES  NO  
DSBSD CERTIFICATION #: 8419 WOMEN-OWNED:  YES  NO

**A Pre-Proposal conference will be held. See Section V herein.**

**THIS SOLICITATION CONTAINS 43 PAGES.**





## RFP - Addendum

---

DATE: April 18, 2017

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Reference - Request for Proposals: RFP# 7406884AA

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Awarded contracts will be posted on <http://eva.virginia.gov> and on <https://vascupp.org>

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Amy Anthes

Phone: (804) 828-1070

ABS Technology

---

Name of Firm

---

Signature/Title

4/28/2017

---

Date

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## Transmittal

April 28, 2017  
Amy Anthes  
Virginia Commonwealth University  
912 W Grace Street, 5<sup>th</sup> floor  
Richmond, Virginia 23284

ABS Technology is excited to submit this proposal to Virginia Commonwealth University for RFP # 7406884AA "Term Agreements for Network Cabling Services."

### Corporate Information at a Glance:

Innovative Systems and Solutions, Inc. dba ABS Technology (S-Corp)  
2809 South Lynnhaven Road, Suite 250  
Virginia Beach, VA 23452

### Individuals Authorized to negotiate on behalf of ABS:

Hunter Dorroh, Owner/CEO  
hdorroh@abstechnology.com | Phone: 757.419.2232

Greg Henderson, Regional Sales Manager  
ghenderson@abstechnology.com | Phone: 540.597.1817

Kristen Kavakava, Contract Administrator  
kkavakava@abstechnology.com | Phone: 757.419.2204

### Corporate Numbers:

- FEIN: 54-1954271
- FRN: 0013307558
- Virginia SWAM Vendor: 8419
- DUNS #: 145833526
- SCC #: 0525802-5

Thank you for the opportunity to submit a proposal for Network Cabling Services. ABS looks forward to developing our relationship with Virginia Commonwealth University.

Sincerely,



Hunter Dorroh  
CEO / Visionary

## Executive Summary

ABS is a Cisco Gold Partner and provider of advanced technology solutions serving Municipal, K-12, State, Higher Education, Healthcare, and Commercial markets throughout Virginia.

ABS was established as American Business Systems in 1972 and reincorporated as ABS Technology Architects in 1999. ABS has always been a family owned company. ABS achieved Cisco partnership in 1999, becoming the first Virginia-based firm to receive Cisco’s IP Telephony certification. ABS is the longest continuously certified Cisco voice partner in Virginia.

ABS has grown over the past four decades into a \$75 million enterprise. Currently, ABS employs over 130 professionals with varied expertise in Enterprise Networking, Wireless/Borderless Technology, Unified Communications, Data Center, Structured Cabling, and Physical Security.

In 2014, we simplified our name to ABS Technology and also made the Inc. 5000 list as one of the fastest growing, privately held businesses in the U.S., -- with our corporate roots firmly planted in Virginia Beach and other offices in Roanoke and Richmond from which we serve clients in Virginia and other states along the east coast! ABS is a SWaM-Certified technology consultant, and is proud to have been providing products and services for USAC/E-rate funded schools and libraries for over 16 years.



ABS leverages years of experience in designing and deploying networks to securely meet our clients’ current and future needs. Above is a visual representation of ABS capabilities and service offerings allowing us to be the comprehensive solutions provider many public entities seek.

Company: Innovative Systems and Solutions, Inc.  
d.b.a ABS Technology  
FEIN: 54-1954271  
www.abstechnology.com

Owner: Hunter Dorroh  
hdorroh@abstechnology.com  
757.419.2232

Address: 2809 S. Lynnhaven Road, Suite 250  
Virginia Beach, VA 23452

**ABS is 100%  
owned by CEO  
Hunter Dorroh**

## ABS Capabilities & Qualifications

The ABS Structured Cabling Team consists of 20 technicians, 11 of which are DCJS Certified (the others are pending) and three Cabling Managers all of which are DCJS certified, one located at each office location. As a company, ABS carries certifications with BICSI, Panduit, Valcom, Paxton, 3M and Hilti. Our teams are equipped with the latest in tools, materials and network testers to route, terminate, label and test the deployment of turnkey cabling solutions for the State of Virginia.

ABS can provide a wide spectrum of services including closet build-outs (racks, cabinets, ladder tray, grounding, and certification of copper and fiber), pathways, (ladder tray and j-hooks), installation of copper and fiber cables, patch panels and fiber housings. We utilize fusion splicers, fiber termination kits and industry leading testers to certify our work. Below is complete break down of ABS Capabilities in regards to Structured Cabling.

### **Copper / Fiber Solution Design and Installation**

- Category 5e, 6, 6e and 6A (10-Gb)
- Multimode OM3-OM4 50-Micron 10-Gigabit Fiber
- Single mode fiber
- Field terminated and pre-termination solutions
- Complete specification, design and install

### **Physical Access**

- Complete specification, design and install

### **Paging Systems**

- Complete specification, design and install

### **Professional Documentation Services**

- Test results
- Copper
- Fiber
- Power meter
- OTDR

### **Raised Floor Space Planning and Layout**

- Overhead drawings
- Space planning and maximization

### **Rack and Cabinet Solution Design and Installation**

- Server cabinet design and specification
- Network cabinet design and specification
- Rack specification; 2-post, 4-post, server, network
- Complete specification design and install

### **Pathway Solution Design and Installation**

- Overhead tray systems
- Raised floor tray systems
- Separate fiber and copper pathways systems
- Complete specification, design and install

### **Complete Specifications, Design and Installation**

- Bonding and grounding systems
- Fire stopping systems
- Data Center build-outs
- Copper backbone systems

ABS partners with leading manufacturers in the industry to provide vendor certified technicians and warranties. All of our Panduit equipment comes standard with up to 25 years of warranty.

Below is a list of certifications held by the ABS Structured Cabling Team:

- Registered Communications Distribution Designer (RCDD)
- Silver Enterprise Structured Cabling – Panduit Certified Installer, authorized to deploy Panduit Enterprise Structured Cabling Systems and participate in the Certification Plus System Warranty Program
- BICSI Installer 2, Copper
- Valcom Certified Installer
- Panduit Certified Technician (PCT), Fiber
- Panduit Certified Technician (PCT), Industrial Automation Design and Installation
- Hilti Firestop Certified Technician
- DCJS License ID # 11-4301

ABS has been accepted into the Siemon Company Certified Installer program. ABS is in the process of scheduling training with an expected completion of September 2017. Please see documentation from Seimons certifying our acceptance into the program in Appendix X.

## Specific Proposal Requirements

Proposals should be as thorough and detailed as possible so that VCU may properly evaluate your capabilities to provide the required goods/services. Offerors are required to submit the following items as a complete proposal:

1. The return of the entire RFP cover sheet and all addenda acknowledgments, if any, signed in ink and filled out as required.

**ABS complies.**

2. Describe the proposed plans and approach for providing the products and services as specified in the RFP Section VI, Statement of Needs, Items A and B. In addition to what is specifically identified in the Statement of Needs, please provide information for the items listed below, but do not limit information to these items:

**ABS has provided responses to Section VI, Statement of Needs, Items A and B in the Statement of Needs section of this proposal beginning on page 15.**

a. Contractor Licensing:

Prior to submission of the proposals, Contractors are required to have a class "A" license with appropriate specialty classification as recognized by the Virginia Board for Contractors, Department of Professional and Occupational Regulation to perform cable installation services. Contractors interested in conduit and cable installation jobs must have either an Electrical Specialty or an Electronics Specialty. Submit a copy of your license.

Contractor's License No. 2705092029

Class A Contractor:  Yes  No

Expiration Date: 2/28/2019

Specialty: ESC

b. Areas of Interest:

Indicate the goods/ services that your firm would like to provide. Check all that apply.  
Note: Firms may only be solicited for cabling projects in the categories indicated.

For Labor Only projects, firms will be solicited to provide technicians with tools as temporary personnel to provide installations services under the supervision of VCU personnel. All materials will be provided by VCU. An hourly rate will be established through a bid process.

For Project Management projects, VCU will seek temporary personnel to provide job planning, estimations, and supervision on a per project basis. Note that a firm providing

project management supervision for a project will not be allowed to participate in that project for installation services. An hourly rate will be established through a bid process.



Firms will be solicited to submit pricing for projects based on the Areas of Interest indicated in this section. Firms will be invited to submit pricing for individual projects based on the eight project categories listed. Please indicate which of the six (6) project classifications that interest your firm. Contractors may choose one, or all, of the six (6) project categories.

(Check all that apply):

- 1. Conduit  Yes  No
- 2. Cat5e/6e+  Yes  No
- 3. Fiber Optics  Yes  No
- 4. Video/Cabling  Yes  No
- 5. Labor Only Jobs  Yes  No
- 6. Project Management  Yes  No

c. Methodology/Approach and Experience/Qualifications:

- i. Contractor certifies that the firm has been providing similar goods/services for a period of not less than two (2) consecutive years.

State number of years firm has provided conduit/cable installations services:

13 years

Has the firm provided these services in the Richmond Metropolitan area?

Yes  No

Please list any State Agencies and/or Institutions of Higher Education that you have performed services for.

- James Madison University
- Radford University
- Old Dominion University
- Liberty University
- Longwood University
- University of Mary Washington
- Christopher Newport University
- George Mason University
- Norfolk State University

- University of Virginia
- Virginia Tech

- ii. Contractor certifies that the firm has the ability to comply with projects identified during the term taking into account other business commitments.

Yes     No

- iii. For Category 6e+ UTP cabling, the primary contractor and any subcontractor shall be certified to provide a 16 year Cabling System Warranty from the Siemon Company. A contractor that is in the process of gaining certification or is scheduled to be certified will be considered responsive. Written documentation from the Siemon Company shall be submitted with the Offeror's proposal. Certifications, when received from Siemon, must be submitted to VCU. The contractor shall not be allowed to bid on or perform Category 5e/6e+ wiring projects until certifications are received by VCU. The on-site supervisor and at least one installer on the job site, at all times, shall be certified in the installations, testing, and certification of Category 5e/6e+ UTP wiring from the Siemon Company. In-house or on the job training will not be acceptable. Provide the names and qualifications of UTP installers and on-site supervisors who hold this certification and attach a copy of the appropriate training certificates for each person listed.

Note: Certifications granted through the Siemon Company will be limited to VCU cabling projects. The contact phone number for Bruce Booberg is 410-991-3964.

ABS has been accepted into the Siemon Company Certified Installer program. ABS is in the process of scheduling training with an expected completion of September 2017. Please see documentation from Seimons certifying our acceptance into the program in Appendix A.

- iv. List at least three (3) prior Category 6e+ UTP cabling projects and include information relative to the size of the project, scope of work, location, dates, and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project. ( Do not include projects completed at VCU).

#### Structured Cabling Infrastructure Implementation, Radford University, VA.

Installed structured cabling, labeling and testing for the new data, access points, and VOIP systems. Installed access control and camera cabling. Installed new telecom racks with grounding and terminations within five locations (MDF and four IDFs) all on different levels within the structure. 1500 + category 6 cabling. Over budget but did not charge customer for work within scope. 2015

#### Bon Secours Hospital Network Upgrade, Baltimore, MD

Complete network upgrade from cat5 to cat6 (approximately 2500 cables) and new fiber backbone throughout the entire facility. Built out new data closets (9) as part of phased approach. Project on budget. 2013 to 2015

### Centra Health, Gretna Virginia

New construction facility consisting of two data closets, one MDF and one IDF. Installed 1200+ cat6 cables in a new medical facility. We also installed access control cable to multiple door locations for a separate door integrator to connect his hardware from the door locations to the nearest closet. Installation of a fiber backbone to connect the MDF with the IDF

We tested all cables and provided the end user with completed results and drop locations. Project on budget.

2014

- d. For fiber optic cabling, the Contractor certifies that the on-site supervisor and at least one installer on the job site, at all times, shall be trained in the installations, termination, and testing of fiber optic cables. Training shall be from a nationally recognized certification authority (BICSI, Siemon, etc). In-house or on the job training will not be acceptable.
- i. Provide the names and qualifications of your firm's fiber installers and attach the appropriate training certificates for each person listed.

Names, qualifications and project profiles for our Structured Cabling team have been provided in Appendix B.

- ii. Provide at least three (3) prior fiber optic cabling projects and include information relative to the size of the project, scope of work, location, dates and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project. (Do not include VCU projects.)

### Fiber Optic Installation, Liberty University, Lynchburg, VA.

Worked with Liberty University staff to: install fiber optic cables both underground and above ground Installations running over 6000 feet of Fiber optic cable, troubleshoot fiber optic cables though out the campus using both OTDR and VFL, use fusion splicer for more than 1500 terminations around campus, repair and replace all fibers that were found to be not at correct levels at testing, install new and used existing cabling in the Football and Baseball stadiums, install cabling both Data and audio visual with terminations for new Cinematic wing, install cabling, rack and all terminations for the new observatory both inside and outside, and fusion splice Fiber Optic terminations at new Medical Center. Project on budget.

2014

### Fiber Optic Implementation, Carilion Hospital, Roanoke, VA.

Installed cabling for the new fiber optic backbone of 10 floors over 20 locations with more than 600 terminations to include testing of 50/125 fiber. Installed new telecom rack and numerus wall mounted enclosures with grounding and three outlying locations on the campus. Project on budget.

2016

### Wise County Public Schools, Virginia

Multi school (7 to 12) project that included pulling cat6 cables for a future Wireless Access Point project from either an existing MDF or IDF, or creating a new IDF. Installation of multi-mode fiber to connect the MDFs to the IDFs. Project on Budget.

2016-2017

- e. Project Management: Project managers must have a minimum of two years of recent and pertinent experience and accredited technical training in the work they are supervising. RCDD Certification is preferred. Provide resumes for your firm's proposed project managers.

We have provided resumes for our Project Management team in Appendix C.

- ii. List at least three (3) prior Project Management cabling projects and include information relative to the size of the project, scope of work, location, dates, and the extent to which the project was on time and within budget. If applicable, include at least one (1) State project.

#### Longwood University – Vice-Presidential Debates (2016), Farmville Virginia

This project consisted of several locations within Longwood University for the Vice-Presidential debates (2016); Media Center, Spin Alley, Main debate hall, Outdoor media Standups, surrogate locations. Media center consisted of 730 cat5e cables pulled from desk locations to designated mobile rack enclosures on the media center floor; 200 cat5e cables pulled for 4 analog voice pairs at the media desk locations; 100+ coaxial cables pulled to a T-tap providing the debate broadcast; fiber optic cable to the MDF on the mezzanine level. Spin Alley consisted of 120 cat5e cables pulled from sectioned off locations for media outlets; 33 coax cables for the debate broadcast. Main debate hall consisted of 200+ cat5e between the media stand ups, Dark Room desk stations and surrogate rooms. Outdoor Media Standups consisted of 75 cat5e cables pulled to designated media locations; 75 cat5e cables for 4 voice pairs and 50 coaxial cables for debate broadcast. Over all the projected was measured to be 75 miles of cat5e, 8 miles of fiber optic cable and 12 miles of Coaxial cable. Project on budget.

2016

#### Liberty University Medical School, Lynchburg Virginia

Construction and installation of eleven 2 post racks and ceiling level ladder tray. Pulling, labeling, terminating in the work area and terminating in the IDF closets 1200 cat6 Plenum cables; 656 Audio Visual cables to include Microphone (16/3), camera power (22/2), lighting triggers (18/6), Coaxial cable (1694A), and cat6 Plenum; Access Control Multi cable; Fiber Optic Cable for interconnect between MDF to 6 IDFs also terminated a 144 strand campus fiber backbone. Project on budget.

2013 to 2014

#### Carilion Ivy Market, Carilion, Roanoke VA

New construction setting for the wiring of a new Orthopedic and Neuro Science health center. Installed J-hooks and designed pathways. Ran copper/fiber network and voice cables for eight different closet locations, each closet had an average of 300 network locations. Interconnected all network closets to the MDF using 24 strand 50 multi mode fiber and 100 pair copper cable. Terminated fiber using pre-polished LC connectors. Terminated work area locations using rj45 110 punch down jacks, installed wall plates, labeled all wires correctly, terminated all cables in rack patch panels and certified all cables using a Fluke DSX-5000 tester. Built network racks for floor mount installation and installed ladder rack with all necessary hardware. Communicated with customer and GC to ensure all deadlines were met on time. Project was slightly over budget but customer was not charged extra for work within the scope.

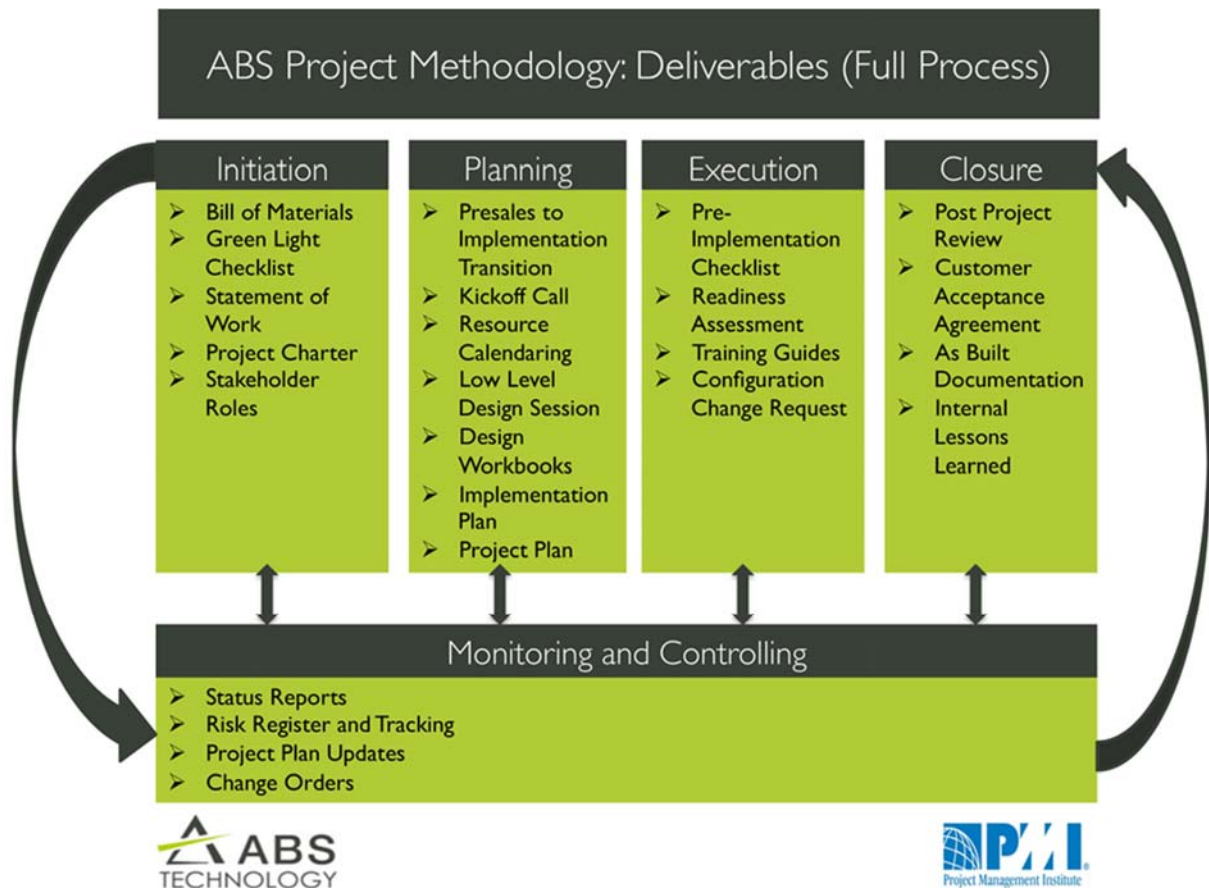
2015

- f. The Contractor shall have a plan in place to coordinate with VCU and ensure timely, effective completion of projects. Please address your firm’s methods of coordination of services and organization and management of projects.

Each project resulting from the contract would be managed by an ABS Project Management Professional. ABS’ Project Management Office has adopted a series of processes that are in alignment with the Project Management Institute (PMI) and the Information Technology Infrastructure Library framework (ITIL). These professionals work to ensure that projects are completed on-budget, on-time, and within the agree-upon scope.

Once a project is released the PM sends out an introduction letter requesting availability for all stake holders for the awarded project to establish an appropriate time for a kick off call. During that call we will establish the cadence for the frequency of status updates for the project. Future calls will address project status, potential changes in schedule, coordination with other trades and updated completion timeline. Once the project is completed we will have a post project review to establish customer satisfaction and address any deficiencies. The project manager will then finalize with an email that will contain the electronic as built drawings and test results. In addition we will provide VCUNS with a hard copy as well.

The evolution of our approach includes measures and tasks for Quality Assurance, Quality Control, Communications, and Continual Service Improvements. The below infographic demonstrates ABS Project Management Methodologies and full processes:



- g. Quality Assurance: Describe your approach to assuring that the components and installations meet VCU requirements. The objective is to specify a solid, thorough approach to quality assurance, from acquisition of materials to final testing procedures, which shall be consistently applied to all projects.

Once an opportunity has been identified, a Presales Engineer will walk-through the site with the client to understand the specific design needs we can tailor for an appropriate solution. Our Engineer will observe building construction with an understanding of local and state building codes, existing pathways, closet locations, available port space and existing cable plant to ensure that we are offering the correct solution to meet the needs.

We will then design the system and present the solution back to VCU in a very detailed quote which outlines the statement of work and necessary hardware. Upon acknowledgement from the customer that the design meets their needs, and successful award of the project, the order will be placed and the ABS Procurement Team will work to ensure the materials arrive on time to meet VCU's required deadlines.

Simultaneously, the opportunity is assigned to a dedicated Project Manager who will kick-off the project with a collaborative call which creates a cadence for the rest of the project. They will begin to align the necessary technicians, and develop a project plan and timeline.

Once the installation team is onsite, the lead technician will meet with the primary contact to discuss the project details. The Project Manager makes site visits and gets daily updates to gain an understanding of how the project is progressing with the intention of keeping the project on track for completion while addressing any issues.

ABS has an RCDD on staff that may inspect the installation looking for any deficiencies and area that need to be addressed when necessary. Upon completion of the installation we will then test and certify all fiber and copper cables to ensure each link is performing within its design standards and provide a detailed test report and as-built drawings for each link we install in hard copy and electronic format.

Finally, our Project Manager will have a final acceptance call with the customer to review the project installation and address any issues that may have arisen.

- h. Testing Procedures: Describe the final testing and inspection procedures that shall be utilized for installations categories to include conduit, Category 6e+ UTP, fiber optic cable, video cable.

ABS tests and certifies every copper and fiber cable we install. We own and deploy Fluke DTX1800 and DSX5000 testers with all applicable copper and fiber modules including the new CAT8 standard. The distributed video cables are not to be terminated per VCU's request so we would only visually inspected. The conduit will be visually inspected to ensure it is supported properly and that all fittings are firmly in place.

- i. Contractor should provide a list of at least three (3) references where similar goods and/or services have been provided in the past two (2) years. Only one (1) reference from VCU is acceptable. Each reference shall include the name of the organization, the complete mailing address, the name of the contact person, an email address if available, and telephone number. Firms should submit at least one reference for a project greater than

\$100,000. At the sole option of the University, VCU may elect to request inspection privileges for installed jobs from the references submitted.



Isle of Wight County Schools			
Reference's Current Point of Contact Name	Point of Contact Email	Point of Contact Phone Number	Reference's Contract No.
Eric Cooprider	ecooprider@iwcs.k12.va.us	(757) 365-1632	Uses combination of contract vehicles, RFPs and ITB.
Reference's Project Manager Name	Project Manager Email	Project Manager Phone Number	Project Description
Eric Cooprider	ecooprider@iwcs.k12.va.us	(757) 365-1632	Serveral New Constntruction Projects to include Cabling, Cabling for network and AV needs throughout district.
Reference's Contract Manager Name	Contract Manager Email	Contract Manager Phone Number	Date Implemented
Eric Cooprider	ecooprider@iwcs.k12.va.us	(757) 365-1632	2005 - present



City of Richmond Public Schools			
Reference's Current Point of Contact Name	Point of Contact Email	Point of Contact Phone Number	Reference's Contract No.
Charles Ponton	cponton@richmond.k12.va.us	804-354-1127	Utilizes cooperative contract
Reference's Project Manager Name	Project Manager Email	Project Manager Phone Number	Project Description
Charles Ponton	cponton@richmond.k12.va.us	804-354-1127	Associated cabling for implementation of Cisco wireless access points and switches.
Reference's Contract Manager Name	Contract Manager Email	Contract Manager Phone Number	Date Implemented
Alma Bell	abell@richmond.k12.va.us	804-780-6151	July 2014 - present



Brunswick County Public Schools			
Reference's Current Point of Contact Name	Point of Contact Email	Point of Contact Phone Number	Reference's Contract No.
Dr. Freddie Terry	terryfl@brun.k12.va.us	(434) 848-3138	utilizes cooperative contract
Reference's Lead Engineer Name	Lead Engineer Email	Lead Engineer Phone Number	Project Description
Elizabeth Lynch	elizabeth.lynch@brun.k12.va.us	(434) 848-3138	BCPS is ABS's longest standing K-12 account. Since 2001, ABS has supported BCPS' evolving network infrastructure with Structured Cabling services.
Reference's Contract Manager Name	Contract Manager Email	Contract Manager Phone Number	Date Implemented
Elizabeth Lynch	elizabeth.lynch@brun.k12.va.us	(434) 848-3138	2001- present



Highland County Schools			
Reference's Current Point of Contact Name	Point of Contact Email	Point of Contact Phone Number	Reference's Contract No.
Gary Lane	glane@highland.k12.va.us	540-468-6307	Utilizes cooperative contract
Reference's Project Manager Name	Project Manager Email	Project Manager Phone Number	Project Description
Gary Lane	glane@highland.k12.va.us	540-468-6307	Provided network cable drops to the high school and elementary school. Included J-hooks, Patch panel termination & new cabinets.
Reference's Contract Manager Name	Contract Manager Email	Contract Manager Phone Number	Date Implemented
Gary Lane	glane@highland.k12.va.us	540-468-6307	2015

- j. List all construction-related lawsuits (other than labor or personal injury litigation) filed by, or against, the Contractor in the last five (5) years, and identify the nature of the claim, the amount of dispute, the parties, and the ultimate resolution of the lawsuit.

**ABS has no construction or other labor/personal injury lawsuits to report.**

- k. Please submit a copy of your insurance certificate and provide your insurance Experience Modification Rate (EMR). Upon award, a certificate of insurance naming the Commonwealth of Virginia as an additional insured will be required.

**ABS has provide a certificate of insurance in Appendix D.**

- l. Information demonstrating the Contractor's financial stability to include:  
1) Full name, address, and telephone number of the organization;

**Innovative Systems and Solutions, Inc. dba ABS Technology  
2809 S. Lynnhaven Road, Suite 250  
Virginia Beach, VA 23452  
757-466-0004**

- 2) Date the firm was established;

**1972**

- 3) Ownership (e.g. public company, partnership, subsidiary, etc.);

**ABS is solely owned and operated by Hunter Dorroh.  
Hunter Dorroh  
hdorroh@abstechnology.com  
757.419.2232**

- 4) If incorporated, provide the state of incorporation;

**Virginia**

- 5) Number of full-time employees on January 1st for the last three (3) years or for the duration the firm has been in business, whichever is less.

- **As of 1/1/15 - 106 employees**
- **As of 1/1/16 - 110 employees**
- **As of 1/1/17 - 123 employees**



## Statement of Needs

This Section describes VCU’s requested goods and/or services and the areas to be addressed in Offeror’s Proposal. Proposal response must be written in the same order as outlined below. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities. Emphasis should be placed on completeness and clarity of content. Failure to submit all information requested may result in the elimination of the Proposal from consideration. Proposals that are substantially incomplete or lack key information may be rejected by VCU. Please note that utilization of the words “shall” or “must” indicates a mandatory requirement.

### A. Scope and Introduction

1. The Network Services Department at VCU is responsible for the installation of data, voice and video distribution cabling throughout the University. There is an on-going need to supplement the efforts of the in-house staff with outside contractors. Network Services wishes to establish agreements to provide these Network Cable Installation Services.

2. Project / Contractor Assignment Under Agreement: Projects valued at less than \$10,000:

- a. Projects valued at less than \$10,000:

Individual Cat 6e+ UTP cable projects will be assigned to Contractors during the agreement term utilizing a rotational matrix established for this purpose:

- i. The Small Project Matrix will be used for projects estimated to be less than the VCU Departmental Purchasing Delegated Authority (currently at \$10,000.00).
    - ii. Contractors will be listed on the Small Project Matrix in alphabetical order. Contractors will be assigned individual projects by proceeding in an “A-Z” direction on this matrix.

3. The following information reflects the value and associated numbers of the total annual expenditures for the prior 3 fiscal years:

Dollar Range	# of Jobs	Dollar Value
Under \$10,000	230	\$631,899.00
\$10,001-\$50,000	14	\$343,048.00
\$50,001-\$500,000	8	\$990,297.00

4. The initial period of the agreements shall be for one (1) year with the option to renew the term agreements for four (4) additional one-year periods. At the sole option of the University, VCU may elect to enter into agreements with additional Contractors at any time.

**ABS acknowledges and accepts the “Statement of Needs” for this contract to be utilized as staff augmentation in addition to VCU’s internal Network Services Department and that the contract is intended for data, voice and video distribution cabling projects valued at 10K or less. The successful contractors will be placed in an alphabetic project matrix for award.**

Additionally ABS acknowledges that any project exceeding 10K in value will be awarded based on a competitive bid process.

**B. Required Technical Specifications**

1. The Contractor shall furnish all materials, labor, supervision, tools, test equipment and conduct appropriate tests to provide installation service to VCU. All installations shall conform to appropriate installation standards and guidelines including State and University rules. The Contractor shall comply with all aspects of the following:
  - a. EIA/TIA-568-C and addenda, Commercial Building Telecommunications Wiring Standards.
  - b. EIA/TIA-569-B and addenda, Commercial Building Standard for Telecommunications Pathways and Spaces.
  - c. In order to ensure compliance with the above standards, the Contractor shall perform installations utilizing the methods and recommendations detailed in the building Industry Consulting Services International Telecommunications Distribution Methods Manual.

ABS understands and will comply with the understanding that we are required to furnish all materials, labor, supervision, tools, test equipment and appropriate. ABS as standard practice installs layer 1 cable plant per BICSI standards references above and provides our client with individual test results for each cable that we install.

2. The Contractor shall fire stop all cable runs to meet national and local fire codes. All walls must maintain their fire rating. Specifications on fire stop to be used (i.e. manufacturer name and part number) shall be adhered to.

ABS utilizes fire stop in accordance with national and local fire codes. We generally utilize Hilti products but have access to other methods.

3. The Contractor shall provide as-built drawings in hard copy format.

ABS provides as built drawings in hard copy Visio format.

4. The Contractor shall submit a detailed list of materials to include part numbers and quantities to be used for all VCU Network Services' projects with response to individual project assignments. A detailed list of materials is to be submitted with bids in order to be considered for award.

ABS provides a detailed quote in every response to a request for quote. This detailed quote includes specific statement of work, part numbers and quantities.

5. Prior to starting work, the Contractor must provide a detailed work schedule to VCU Network Services, to include:
  - a. The on-site Supervisor shall be on-site at all times.
  - b. The on-site Supervisor's name and phone number shall be provided on the schedule.
  - c. The name of all wiring technicians, for each project, shall be provided on the schedule. The names will be cross-referenced with the certifications that were submitted during the RFP process.

ABS will assign a dedicated Project Manager to coordinate the detailed work schedule with VCU and a Lead Technician acting as the onsite supervisor on every project. ABS acknowledges that we shall provide a schedule listing the names and certifications with the associated technician on any awarded project.

6. All Contractor personnel working on VCU Network Services' projects shall be responsible for obtaining a VCU Contractors and affiliates ID card. This ID card shall be worn at all times. The VCUCard office will issue the ID badge at a cost, to the Contractor, of \$20 each. If the contractor's technician is unable to provide the VCU identification badge, upon request, he/she will be asked to leave the job-site. The technician cannot return to the job-site until the proper identification badge is obtained. Identification badges are to be returned to VCU Network Services' Project Manager at the time of final inspection. The identification badge will be kept on file and redistributed when another project has been awarded.

**ABS understands this requirement and will comply.**

7. All VCU cabling installations shall carry a Siemon Company Structured Cable Warranty. All associated registration and documentation guidelines shall be followed. Once a project has been awarded, it is the Contractor's responsibility to register the job with the Siemon Company and follow through with all necessary information to obtain the Siemon Certificate of Warranty. Failure to follow the procedures will result in the withholding of final payment.

**Note:** The Siemon Company reserves the right to perform audits throughout the duration of Network Service's cabling projects.

ABS is in the process of obtaining our Siemon certification and shall meet the requirements of VCU as well as Siemon Company. Further we understand that each project shall be installed in such a way that will meet the requirements of Siemon Company to offer the 16 year or greater system warranty. Please see our attached letter of intent from Siemon Company to sign up ABS.

8. The Contractor shall correct any damage to existing systems which occurs during an installation at no cost to the University.
9. All installations require proper grounding as required by ANSI-J-STD-607-A and addenda and consideration of NEC Article 250 and Article 800 is recommended for communication circuits.
10. The Contractor shall use an Underwriter Laboratories (UL) listed polymer based formula cable pulling lubricant when pulling communication cables through existing conduits. The lubricant shall be applied immediately before or during the pull.

**ABS acknowledge and will comply with the above requirements in sections 8, 9 and 10.**

11. The Contractor shall submit a detailed list of materials to include part numbers and quantities to be used for all VCU Network Services projects that are competitively solicited under the resulting agreement. It is the responsibility of the Contractor to notify VCU Network Services of any part number and or item description discrepancies, prior to ordering materials.

ABS provides as normal practice a detailed quote including statement of work, specific part numbers and quantities. In addition we diligently negotiate with our distribution partners advantageous pricing for quality components offering the best value to VCU.

## 12. Fiber Optic Installation Requirements:

- a. Fiber cable runs interconnecting between buildings are to be installed using a gel filled, loose buffer tube fiber optic cable.
- b. Fiber cable runs within buildings are to be installed with tight buffer OFNR rated cable.
- c. Fiber cables shall have all fibers terminated at each end. LC type connectors with ceramic ferrules shall be used, unless otherwise specified by VCU Network Services. All fiber splices must be installed in a splice tray.
- d. Anaerobic fiber connectors are accepted and shall meet the following characteristics:
  - i. Meet the Fiber Optic Connector Intermateability Standards (FOCIS) specifications of TIA/EIA-604-10.
  - ii. Be available in simplex and duplex versions.
  - iii. Utilize same termination kit available for ST, SC and LC versions.
  - iv. Terminate 50/125 $\mu$ m, 62.5/125 $\mu$ m and 8.3/125 $\mu$ m optical fiber.
  - v. Have a quick field termination process, which does not require power.
  - vi. Have a termination process, which incorporates use of a reliable anaerobic adhesive, which has a high resistance to environmental extremes
  - vii. Utilize a precision Zirconia ceramic ferrule
  - viii. Have jacketed and buffered versions.
- e. All mechanical optical fiber connectors shall meet the following characteristics:
  - i. Meet the Fiber Optic Connector Intermateability Standards (FOCIS) specifications of TIA/EIA-604-10.
  - ii. Be a pre-polished mechanical splice connector.
  - iii. Be available in simplex only versions.
  - iv. Terminate 50/125 $\mu$ m, 62.5/125 $\mu$ m and single mode optical fiber.
    - v. Have a quick field termination incorporating a dual-process activation to reduce termination time.
    - vi. Available for terminating 900 $\mu$ m buffered fiber only.
    - vii. Meet the multimode performance specifications for insertion loss (0.20db) and for return loss (-37db).
    - viii. Meet the singlemode performance specifications for insertion loss (0.20db) and for return loss (-55db).
- f. The connection to loose buffer tube fiber may use splices to pigtail fibers which are epoxied to the LC connector (splice trays must be used to store any finished splices) or appropriate breakout tubing with the LC connector directly connected to the fiber.
- g. Each fiber shall be tested bi-directionally at 850 and 1300nm (1300 and 1550nm for single-mode fiber) with an optical fiber power loss set. All splices and LC connectors shall test with less than 0.25db loss per connector or splice. Fibers exceeding the specified loss shall be repaired and retested.
- h. All cables shall be clearly labeled with printer-generated labels; black print with white background at time of final inspection as to origin and destination.
- i. The fiber distribution panels shall be designed to physically protect the fibers on both sides of the barrel. The only exception to this rule is for the fiber cables of

four or less strands. These may be installed in a 2 ¾ “ deep single gang outlet box with Siemon #MX- FP-S-XX-02 Max Modular Faceplates and Siemon #MX-FI-LC-X-02 Max Fiber adapter modules with duplex LC flat couplers. Fiber extension rings of 1” in depth may be used in conjunction with a 1 ½” deep single gang outlet box.

- j. All distribution fibers must be installed in conduit as described in Item 15. Communications Conduit Installation Requirements.

ABS acknowledges and will comply with the above section 12 subsections A-J fiber optic installation requirements. ABS is experienced in installing fiber cable plants in State, Local and Educational clients as well as a variety of other Commercial and Industrial clients throughout the state of Virginia. We have been installing and certifying cable plants for over 10 years and hold a variety of VITA and VASCUPP State contracts.

### 13. Fiber Optic Cable Requirements:

- a. Multimode Fiber optic cables:
  - i. The fiber specified by the owner shall be 62.5-micron core in a 125-micron cladding or a 50-micron core in a 125-micron cladding of multimode graded index glass.
  - ii. The 62.5/125µm fiber shall be rated for dual wavelength use at both 850nm with at least 200MHz/km bandwidth and 1300nm with at least 500MHz/km bandwidth.
  - iii. The 50/125µm fiber shall be rated for dual wavelength use at both 850nm and 1300nm with a minimum bandwidth of 500MHz/km at each wavelength.
  - iv. The fiber shall have a maximum attenuation of 3.5dB/km at 850nm and a maximum attenuation of 1.0dB/km at 1300nm on all fibers within the cable.
  - v. The glass fiber shall be of high quality and shall be traceable by lot number in case of problems. Fiber made by Corning Glass fulfills these requirements.
  - vi. The cables shall have no conductive wires or elements (all dielectric construction).
  - vii. The cables shall not be armored.
  - viii. Qualified multimode fiber optical fiber cables shall be in compliance with the following standards ISO/IEC 11801:2002 OM3, ANSI/TIA/-568-C.3, ANSI/TIA/-568- C.3-1 except the limits for attenuation and bandwidth for cables containing 50/125µm or 62.5/125µm fiber shall be as noted above.
  - ix. The 62.5/125µm fiber shall have a guaranteed transmission distance for Gigabit Ethernet of 275 meters at 850nm and 550 meters at 1300nm. The 50/125 µm fiber shall have a guaranteed transmission distance for Gigabit Ethernet of 550 meters at both 850nm and 1300nm.
  - x. Qualified cables shall perform in accordance with the attenuation limits as noted above when tested per ANSI/TIA-455-46, -53, -61 or -78 (as applicable).
  - xi. Qualified cables shall perform in accordance with the bandwidth limits as noted above when tested.
  - xii. The protocol pertinent to the transmission distances noted above for Qualified Cables is Gigabit Ethernet per IEEE 802.3:2002.
  - xiii. Fiber will also have both a thermoplastic outer and inner jacket, contain inner Aramid yarn and Dielectric central strength members.

b. Single-mode Fiber optic cables.

- i. The fiber shall be 8.3-micron core in a 125-micron cladding.
- ii. The fiber shall be rated for dual wavelength use at both 1300nm with a mode-field diameter of 9.30-1550nm with a mode-field diameter of 10.50-1.00 micron.
- iii. The attenuation at 1383-3nm shall not exceed 2.1 dB/km.
- iv. The attenuation between 1285 and 1310nm shall not exceed the attenuation at 1310nm by more than 0.10 dB/km, between 1310 and 1330nm shall not exceed the attenuation at 1310nm by more than 0.05 dB/km, and between 1525 and 1575nm shall not exceed the attenuation at 1550 nm by more than 0.05 dB/km.
- v. The zero dispersion wavelength shall be between 1300 and 1322 nm with a zero dispersion slope less than or equal to 0.092 ps/ (nm<sup>2</sup>-km).
- vi. The cladding non-circularity shall not exceed 2.0%.
- vii. Qualified singlemode optical fiber cables shall be in compliance with ISO/IEC 11801:2002 OSI, ANSI/TIA-568-C.3.
- viii. Qualified cables shall perform in accordance with the attenuation limits as noted above when tested per ANSI/EIA/TIA-455-46, -53, -61 or -78 (as applicable).
- ix. Qualified cables shall perform in accordance with the Zero Dispersion wavelength and slope limits as noted above when tested per ANSI/TIA-455-168, -169, or -175 (as applicable).
- x. Shall be available in OFNR and OFNP ratings.

c. Tight buffered fiber cables:

- i. The cables shall have at least a UL rating of Optical Fiber Nonconductive Riser (OFNR).
- ii. The cables shall have a breakout jacket on each fiber such that a LC type connector can be directly attached to the fiber cable without requiring a pigtail splice of jacketed fiber to connect to the ST connector.
- iii. The breakout jacket on each fiber shall have a standard color-coding for identification.
- iv. The glass fiber shall have passed the Optical Fiber Proof Test at 100kpsi with a maximum flaw size of 0.7 microns.
- v. The glass fiber shall have an Acrylate coating around the glass fiber to a diameter of 500 microns.
- vi. The cable shall have a crush resistance greater than or equal to 200N/cm (EIA-455- 41).
- vii. The cable shall have an impact resistance greater than or equal to 20 impacts with 1.0 N-m per the EIA-455-25 standard.

d. Gel filled, loose buffer tube fiber cables

- i. The buffer tubes shall be filled with a waterproof gel.
- ii. The buffer tubes shall contain 6 fibers each.
- iii. Each fiber in the buffer tube shall have a standard color-coded coating for identification.

- iv. The glass fiber shall have passed the Optical Fiber Proof Test at 1000kpsi.
  - v. The glass fiber shall have an Acrylate coating around the glass fiber to a diameter of 250 microns.
  - vi. The cable shall have a crush resistance greater than or equal to 600N/cm (EIA-455- 41).
  - vii. The cable shall have an impact resistance greater than or equal to 20 impacts with 1.0 N-m per the EIA-455-25 standard.
- e. Fiber Optic Test Results:
- i. The Contractor shall be responsible for bi-directional testing, using a fiber optic power meter. OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) WILL NOT BE ACCEPTED.
  - ii. Multi-mode fiber shall be tested at both 850nm and 1300nm.
  - iii. Single-mode fiber shall be tested at both 1300nm and 1550nm.
  - iv. Test results shall include, at a minimum, the following information: identification of each buffer tube and fiber strand color; length; limit (db); value (db); wavelength (nm; margin (db). Test results shall be saved in .TXT or .FLW
  - v. format and include VCU Network Services HD#.
  - vi. Fiber test results for the fiber listed above shall be delivered to VCU Network Services in hard copy format at time of final inspection.

ABS acknowledges and will comply with the needs of the individual client application for section 12 sub-sections A-O. Further acknowledgement given to the requirement of using a Fiber Optic Power Meter and procedures for testing of all Fibers. ABS owns its own testing equipment in each of our 3 offices across the state of Virginia.

#### 14. Communications Conduit Installations Requirements:

- a. The Contractor shall x-ray floors prior to any penetrations using a certified x-ray technologist. Note: GPR (Ground Penetrating Radar) is also acceptable.
- b. All conduits shall be reamed throughout and bushed at both ends.
- c. There shall be no more than two (2) 90-degree bends between pull points.
- d. Pull Strings shall be left in all conduits and inner ducts.
- e. Conduit must be installed, at a minimum of, 6” away from sprinkler heads.
- f. Typical outlet boxes shall be single gang with a 1-inch conduit feed.
- g. No more than 8 UTP cables shall be pulled through a 1-inch conduit.
- h. For additional outlets at one location, a double gang box with a 2-inch conduit feed may be used.
- i. No more than 22 UTP cables shall be pulled through a 2-inch conduit.
- j. Outlet boxes shall not be daisy-chained together. Each box shall have a dedicated conduit from the main cable tray or distribution system.
- k. Note: ½” and ¾” conduit is not to be used. Fill capacity for all other sizes to be determined by VCU Network Services.

ABS acknowledges and will comply with the pathway requirements and stipulations of section 13 sub-sections A-H. We further acknowledge that for every conduit installation no smaller than 1” conduit is to be used and that we must consult VCUNS on the specific fill capacity for other sizes beyond 1”.

#### 15. Category 5e/6e+ UTP Cable Specifications:

- a. Cable runs outside of conduit shall be supported every four (4) feet with J-hooks or equivalent from the outlet stub to the communication room. Cable and cable supports are not to be attached to or laid across other cables, pipes or conduit or ceiling grid wires. Cables may not touch any part of the ceiling grid at any time.
- b. All Category 5e/6e+ terminations shall follow the T568B wiring pin out standard, using Siemon Max or ZMAX series Category 6e+ components throughout (VCU standard: no substitutions).
- c. Use angled or flat jacks at the outlet.
- d. Siemon #MX-PNL-XX or Z6-PNL-XX rack mounted patch panel frames shall be used to terminate the cabling in the Telecommunications Rooms (VCU standard: no substitutions).
- e. Use Z6-20 ZMax jacks at the patch panels.
- f. Patch panel terminations shall be laid out in a geographically logical pattern, i.e. all terminations for room 334 will be located together, next to the terminations for room 335, etc.
- g. Cable used shall be Mohawk M57197 Advancenet – Green or MegaLAN #M56168 – Blue (4- pair, UTP PLENUM cable).
- h. All outlets, patch panels and cables shall be clearly labeled with printer-generated labels, black print on a white background. At a minimum, floor, room number, and jack position shall be indicated at both ends. Labels shall be applied within six (6) inches of the termination points of all cables.
- i. Terminate the room number end using the following Siemon Max Modular series components: Siemon XMX-FP-S-04-XX Max Faceplates shall be used with single-gang boxes, unless otherwise specified. Siemon #MX6-XX Category 6 modules shall be used. When Category 5e modules are specified MX5-XX shall be used for cable terminations.
- j. The Contractor shall be responsible for bi-directional testing of each run with a VCU approved Category 5e/6e+ test set (PentaScanner, LANTEK ProXL, or other equivalent test set).
  - i. Any run that does not pass testing shall be corrected and re-tested.
  - ii. The Contractor shall provide Network Services with a CD of all test results. The CD shall be labeled with HD#, Building Name and Date submitted (xx/xx/xxxx). Test results should include, as a minimum, the following information for each run:
    - Building
    - Floor(s)
    - Room(s)
    - Communication Room(s)
    - Patch panel #
    - Patch panel port
  - iii. Siemon #S66M2-5T-128LR modular jack or approved equal, 66 blocks pre-wired to RJ- 45, T568B wiring pattern shall be used to provide an interface between voice riser and the horizontal distribution patch panel in the Telecommunication Rooms.

ABS acknowledges and will comply with section 14 sub-sections A-G. We will take special consideration when routing the cable to ensure that they are kept a suitable distance from EMI sources as well other building systems. We will only utilize the 568B pin out standard for the specified Siemon Company terminations. At the end of each project we will provide VCU Network Services a CD of all test results with the required information. ABS has been installing voice, data and distributed video cabling in the state of Virginia for over 10 years.



#### 16. Video Distribution Coax Specification:

- a. Horizontal distribution coax shall be Belden 9116P (RG6) coax or a VCU approved equivalent. Plenum cable is required.
  - i. Terminate on Siemon F-type coupler plates at the outlet (VCU standard: no substitutions).
  - ii. Terminate with F-type connectors in the closet. Do not mount in patch panels. Coil terminated coax in closet with enough slack to allow routing anywhere in the room. Label each cable clearly.
- b. Riser coax shall be Times Fiber Communications, Inc. T10 625 Series Semiflex jacketed cable with aluminum sheath (Part Number T10625J) or a VCU approved equivalent.
  - i. Install, but do not terminate riser coax. Coil un-terminated coax in closet with enough slack to allow routing anywhere in the room. Label each cable clearly.

\*\* Detailed specifications are written specifically for each project. In case of a conflict with these general requirements, the detailed project specifications will take precedence.

**ABS Acknowledges and will comply with section 15 sub-sections A-B and that project specifications take precedence over the above stated general requirements. Further we acknowledge that we are not to mount to any RG6 coax to any patch panels and special requirements of leaving an unterminated service loop long enough to locate to anywhere in the room.**

## Appendix

- Appendix A: Seimons Certified Installer Program Acceptance Letter
- Appendix B: Project Profiles for Key Personnel and the ABS Structured Cabling Team
- Appendix C: Project Profiles for the ABS Project Management Team
- Appendix D: ABS Certificate of Insurance
- Appendix E: ABS Class A Contractor's License
- Appendix F: ABS Structured Cabling Sales Slick
- Appendix G: ABS Closet Clean-up Pictures
- Appendix H: Certification of Small Business Form
- Appendix I: Invoicing and Payment Form

## Appendix A: Seimons Certified Installer Program Acceptance Letter



April 27, 2017

To whom it may concern:

Re: ABS Technology (Virginia Beach, VA)

This is to advise that ABS Technology has been accepted into the Siemon Company Certified Installer program. Once the administrative and training requirements are complete, ABS Technology will be able to offer any of the Siemon Cabling System® Extended warranties.

Do not hesitate to contact me should you have any questions.

Sincerely

A handwritten signature in black ink that reads "Lynn Lamy".

Lynn Lamy  
Channel Inside Sales Rep – SE, NE & SW

cc: Bruce Booberg, The Siemon Company

The Siemon Company  
101 Siemon Company Drive  
Watertown, CT 06795-0400  
Tel: 860 945 4200  
[www.siemon.com](http://www.siemon.com)

## Appendix B: Project Profiles for Key Personnel and ABS Structured Cabling Team



# Hunter Dorroh

CEO, Visionary

hdorroh@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

From Calculators and Typewriters, to the Full Spectrum of Network Infrastructure

Since 1972, ABS Technology has been providing clients with the most advanced technologies available. Although times have changed, ABS maintains a focus on providing cutting edge products and solutions the business needs of its clients.

After purchasing the company from his father in 1999, Hunter Dorroh knew he needed to steer the company in a more forward-thinking direction. ABS focused their efforts on partnering with Cisco Systems and soon found success in the IP Telephony market. In 2001 ABS Technology installed the first Cisco Voice in Virginia. To date, ABS is the only Cisco Master Unified Communications Partner headquartered in Virginia.

In addition to Cisco Systems, ABS partners with many other top technology manufacturers including EMC, Microsoft, VMware, Nimble Storage, and many more. These strategic partnerships coupled with the host of talented and highly certified engineers, allow ABS to provide design and implementation services and support encompassing enterprise networking, data center/cloud, structured cabling, standard commodity hardware and software, lifecycle & managed services, and security.

With the help of his trusted team of advisors, Hunter has grown the company exponentially over the years forcing him to expand into a larger headquarters office. Hunter has also doubled the number of employees, opened 2 additional office locations, while operating as a highly profitable a debt-free organization with aggressive plans for continued growth.

## OVERVIEW

Hunter is the Chief Executive Officer and Visionary, who like all of the Dorroh kids started working at ABS under the leadership of his father pulling weeds and picking up cigarette butts. After graduation from the College of William and Mary in 1991 with a Bachelor of Science in Business Administration, he began in the accounting department. Rapidly developing a disdain for paperwork, he discovered a knack for computers and new technology, and transitioned into a position working with technicians. It comes as no surprise after decades of experience that Hunter's current responsibilities include leading the focus and direction of ABS.

## EDUCATION

William & Mary College  
Bachelor of Science in Business Administration



# Bryan Campbell

VP of Strategy and Operations

bcampbell@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Vice President of Strategy and Operations, ABS Technology, Virginia Beach

### OVERVIEW

Responsible for strategic planning, executive leadership, culture building, mentorship and financial management.

### EDUCATION

Bachelor's degree in Business Administration – University of Mary Washington  
Master of Business Administration with concentration in Management Accounting – Old Dominion University

### CERTIFICATIONS

Certified Public Accountant (CPA) – Virginia

- Responsible for strategic planning, executive leadership, culture building, mentorship and financial management.
- Development of \$70 million corporate budget; correlating departmental level goals with strategic business goals.
- Oversight of corporate tax returns and financial statement review.
- Audit, review, tax and advisory consulting service responsibilities, including planning, supervision, client relationship management and development. Experience includes capital raising, debt structuring, financial statement projections and analysis
- Tax compliance and advisory for pass-through entities, corporations and individuals. Includes tax credits and incentives, multi-state and nexus issues, inventory and depreciation methodologies, exit strategies, succession planning, and other formation and planning considerations.
- Leadership of professional teams with clients ranging in size from \$10 million to over \$1 billion in annual gross revenue. Coordinates with assurance, tax and advisory departments as necessary and served as point-of-contact.
- A leader in business development in Mid-Atlantic region, responsible for over \$1 million in net new revenue in past 5 years, including new clients and cross-sales to existing clients. Growth in net fees managed of 117% over four-year period.



# Noel Barber

Director of Engineering Services  
nbarber@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Vice President of Solutions and National Presales, ePlus, Inc.

Responsible for overlay Pre-Sales Engineering team supporting regions in pre-sales engineering for Networking, Virtualization, Storage and Video Collaboration. Responsible for National services Project Management Office, supporting and managing projects nationwide. Leader National Services Support teams including SOWDeak, Assessments, and Services Solution Productization functions.

Director, Solutions Engineering, Packet 360

Responsible for all aspects of VMware professional services within the Mid-Atlantic region (6 states). This includes managing a team of consultants, pre-sales support, definition and review of SOW's, managing the territory partner relationships, and managing the territory as a P&L.

Engagement Manager, VMware, Inc.

Responsible for all aspects of delivery of VMware professional services and engagement, as well as program basis. This includes delivery to SOW's, tracking and quality assurance of deliverables, managing all internal and external communications, project planning/tracking, and acting as technical advisor to on-site consultants as well as customer. Managed 4-6 concurrent projects concurrent projects for up to 3 programs with Fortune 500 company base.

## OVERVIEW

Over 23 years in Software Development, Services Delivery, Services Operations, Technical Pre-Sales and Project Management with a focus on Data Center, Virtualization, IP Telephony/Collaboration, and large scale software application delivery, integration, and solutions deployment.

Specialties: Professional Services, Cloud, Virtualization, Unified Communications, Collaboration, Voice Over IP, VoIP protocols (SIP,H323), Physical Design, Overall Team Management, and Engagement/Project Management.

## EDUCATION

New Mexico State University  
Bachelor of Science in Computer  
Technology

## CERTIFICATIONS

VMware Certified Professional



# Kenny Miller

Director of Structured Cabling  
kmiller@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Manager of Cabling and PBX Services, Professional Network Services

Managed multiple projects simultaneously while interpreting RFP's, conducting site surveys, preparing estimates and providing technical knowledge to colleagues and customers. Conferred with clients to ascertain the best design and equipment necessary to accomplish the customer's requirements. Developed the skills of field technicians by providing on the job training in fiber optics and copper installation, termination, splicing and testing. Develop employee appraisals and conduct reviews and raises. Managed and developed twenty-nine personal to include project managers, lead cable technicians cable technicians, PBX engineers and project manager assistant. Responsible for warehouse inventory, fourteen vehicles, vacation approval, expense approval and payroll approval. Work closely with chief financial officer to maintain a positive profit and loss statement.

Lead Technician, Professional Network Services

Supervised the installation of UTP, STP, SCTP and Fiber Optic cabling systems as well as voice integrated paging systems. Responsible for large projects of a time sensitive nature. Provided insight to management on issues that may develop during projects. Accountable for 2-15 personnel at any given time. Fulfilled better than 98% of all assigned task on time and under budget.

Project Forman, Ray Communications

Scheduling and supervision of work crews. Installed UTP, STP, SCTP and Fiber Optic cabling system. Installed pathways for cabling to include Panduit and Wiremold raceway, conduit, bridle rings, j-hooks and ladder rack. Troubleshoot cabling by utilizing the following test equipment Wirescope 100 field tester, Optical Time Domain Reflectometers, power meters and multi-meters. Assist project manager in design and layout of projects. Develop installation documentation to include As-Built drawings, copper and fiber cable test results and customer acceptance reports. Assigned to a crew designated to the installation of several large PBX installations.



## OVERVIEW

Responsible for the overall operation of the Structured Cabling Division. The primary focus is to build and maintain the resources and infrastructure necessary to insure the efficient, profitable, and professional operation of the division, while supplementing the regional activities as necessary

## CERTIFICATIONS

DMS 100/200 System Training.  
BTH125B-Merlin Legend Installation and Maintenance. ND 3600 Premises Distribution System Installation and Maintenance. Mitel SX2000 certified. Panduit certified. DCJS

## ACCOMPLISHMENTS

Cryptographic System Installation, Buried Cable Installation, Power Distribution Systems, Standard Installation Practices Training, Designing ValCom Voice Integrated Paging Systems, Technical Training Seminar, ValCom. Sales Force, Great Plains, Quick Books, Quote Works, Microsoft Office, Visio, ConnectWise, Access, AccuWare. Served in the United States Air Force

### Senior Installer, Bellsouth Communication System

Responsibilities included installation and termination of feeder cables (1200 pair and down) and frame layout. Installation of voice and data cabling, termination, testing, labeling, cross-connecting and troubleshooting station problems. Installation and termination of indoor and outdoor Fiber Optic cable including splicing and installation of related equipment. Implemented Engineering Change Orders and maintained cable records. Experience with basic PBX installation.

### Engineering and Installation Team Member, United States Air Force

Duties included providing Command, Control and Communication to customers throughout the Air Force. Perform all levels of installation and maintenance on inside plant telephone switch equipment to include adds, moves and changes, repairs, test, troubleshoot and overhaul of equipment. Other duties included construction of frames, cabinets and racks. Cable connection to equipment circuitry. Assisted in material inventories, inspection and technical evaluations of installations. Performed operational testing on newly installed equipment to ensure compliance with technical specifications. Operated and maintained vehicles, tools and test equipment.



# David Glickman

Structured Cabling Manager

[dglickman@abstechnology.com](mailto:dglickman@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

**Campostella STEM and Richard Bowling ES, Norfolk Public Schools, Norfolk, VA**

Structured Cabling design and build for new Elementary Schools(>800 cat6 Cable drops), Determining required parts, engineering solutions for site specific needs, oversaw implementation to meet deadline for school opening.

**Synerject Expansion, Continental Inc., Newport News, VA**

New network closet buildout for two locations, racks, panels backbone fiber and cable management for new telecom rooms in a Manufacturing facility.

**2016 VP Debate, Longwood University, Longwood, VA**

Determined materials and time required for transformation of University athletic facilities to accommodate needs for committee for presidential debates and worldwide media to facilitate and broadcast VP debate. Included fiber optic, UTP, coaxial connections for short term use and removal to return building to their original use.

**Cavalier Hotel, Gold Key PHR, Virginia Beach, VA**

Provided solution for SCS cabling for remodel of a historic hotel, accommodating guest room requirements, restaurants, on-site distillery, fitness rooms including backbone fiber, coax, and high count UTP, as well as distribution cat6, coax, and creative pathway solutions in preserving historic features of the site.

**St Mary's Hospital closet reorganization, Bon Secours Health System, Richmond, VA**

Provided solution for Network closet reorganization to facilitate switch upgrades and improve manageability of 25 Communications rooms.

**Bon Secours Baltimore Hospital rewire, Bon Secours Health System, Baltimore, MD**

Provided solution for SCS overhaul for entire facility (>3000 drops). Cat6 cable replacement and additions for a hospital, including patient care, Operating rooms, Administrative offices, food service and Department of corrections units. Included OM3 fiber backbone cabling, new closet buildouts as well as rebuilds, cutover assistance and demo of existing cabling plant.

## OVERVIEW

David attended Virginia Commonwealth University where he studied Psychology. Acquiring a Bachelor's degree in 2004. David began working that summer at ABS as a cable installer and has worked in K-12, Commercial, Industrial, Healthcare, and Government facilities. He built on his experience in the field to become a lead technician and estimator, eventually being promoted to Cabling services manager servicing Hampton roads and the State of Virginia.

His experience in the field has helped build the Core competencies of the structured Cabling division to include solutions for Overhead Paging, Audio/ Visual, Access Control, Video surveillance, outside plant applications and Industrial Automation. It also allows ABS to offer solutions from a wide variety of knowledge of manufacturer components, ensuring the proper material and accurate estimation of solutions to fit Client needs.

## EDUCATION

Virginia Commonwealth University,  
BS Psychology, 2004



# Adam Baber

Inventory Manager

ababer@abstechnology.com



## REPRESENTATIVE PROJECT EXPERIENCE

**Ruffner Middle School Rerouting Fiber New 25 Pair 2016, Roanoke City Public Schools, Roanoke, VA.**

Worked as part of a team to reroute fiber and run new 25 pair, and managed inventory for job.

**Cornerstone Detention Cabling Fiber Termination 2016, Norment Security Group Inc, Burkeville, VA.**

Worked as part of a team to test fiber, and make suggestions to fix bad termination ends.

**Humanities Cabling and Physical Security 2016, Radford University. Radford, VA**

Worked as a lead tech to hang AP's and Cameras, and managed inventory for the job.

**Centra Health, Langhorne Structured Cabling 2016, Lynchburg VA.**

Worked as part of a team to run, terminate and test copper.

## OVERVIEW

Adam Baber attended Virginia Western Community College where he studied Electrical Engineering and obtained an Associate's degree in 2015. He began working at ABS later that year as the Inventory Manager and has worked Testing copper and fiber. He has also helped the GE team successfully configure switches and ship out or deliver orders while meeting deadlines. Adam is a quick learner and is eager to develop his professional career.

## EDUCATION

Associates Degree in Electrical Engineering Virginia Western Community College

## CERTIFICATIONS

Microcomputer Systems Technology DCJS  
RE35 Electronic Security Technician



# Andrew Rhodes

Structured Cabling Manager

arhodes@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Sentara South Boston Wireless Upgrade, Sentara, Halifax County, VA

Designed project for wireless upgrade for various medical facilities throughout the county.

St. Mary's Hospital Closet Refresh, Bon Secours, Richmond, VA

Updated switches in 27 data closets throughout hospital. Minimized cutover time while installing new cabling and network hardware. Worked on design and implementation.

City of Richmond Public Schools Wireless Upgrade, City of Richmond Public Schools, Richmond VA

Updated existing wireless access points and installed new access points throughout school buildings and offices. Worked on design and implementation.

Marinemax Wireless Installation, Marinemax, Lake of the Ozarks, MO

Installation of wireless access points, wireless bridges, network cabling and conduit throughout marina facility and adjoining warehouses.

Isle of Wight County Public Schools Wireless Upgrade Isle of Wight County Public Schools, Isle of Wight, VA

Updated existing wireless access points and installed new access points throughout school buildings and offices.

Bon Secours Hospital Network Upgrade

St. Mary's Hospital, Baltimore, MD: Depaul Hospital, Norfolk, VA:

Mary Immaculate Hospital, Newport News, VA

Complete network upgrade from cat5 to cat6 and new fiber backbone throughout the entire facility. Built out new data closets as part of phased approach.

## OVERVIEW

Andrew attended James Madison University where he concentrated in Environmental Science as part of the Integrated Science and Technology program. He began working at ABS in 2011 as a structured cabling technician.

## EDUCATION

James Madison University – B.S

## CERTIFICATIONS

CCENT  
BICSI COPPER II  
DCJS



# Anthony Libengood

Lead Technician/Cabling Estimator  
alibengood@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Campostella Elementary School, Norfolk Public Schools, Norfolk, VA**

Led the implementation process till the end of the project. Brought up new employees and trained accordingly with ABS proper practices. Dealing with the clients and contractors on site to complete tasks. Generated site maps and spreadsheets.

**Tidewater Finance, TFC, Chesapeake, VA**

Led a portion of the implementation process. Dealing with clients and contractors to complete tasks. Generated site maps and spreadsheets.

**Georgie Tyler Middle School, IOWPS, Isle of Wight, VA**

Led the implementation processes through duration of project. Devices installed range from cameras, WAP's, phones, and projectors. Generated site maps and spreadsheets

**Windsor High School, SMS- IOWPS, Isle of Wight, VA**

Led the implementation processes through duration of project. Responsible for the installations of cameras and data.

**Beach Eye Care, Chesapeake, VA**

Led a portion of the implementation processes.

**Governor's School for the Arts, Norfolk, VA.**

Led the implementation processes for the duration of the project. Devices installed were cameras, WAP's, phones, speakers, clocks, door access and data. Brought up new technicians and trained accordingly with ABS proper practices.

**JPK, SPM, SMS, SHS, WES - FCPS, Franklin, VA**

Led the implementation processes of multiple sites. Devices installed range from cameras, WAP's, phones, and data. Took down networks and re punched all closets into new panels in one week with DF.

**Atlantic Shores Christian Schools, Virginia Beach, VA**

Led the implementation processes of multiple sites. (Life Center, Secondary Campus). Devices installed range from cameras, WAP's, projectors, speakers, and data.

## OVERVIEW

Anthony Libengood attended Landstown High School. Gained a large amount of job experience from working with underground utilities and as a finish carpenter. Anthony began working at ABS in 2013 as a technician and has worked in an array of implementation projects installing multiple types of devices and providing solutions to assist clients. Moved from the title of tech to lead technician within a year taking on the project GSA. Worked in the field as a Lead technician until 2015 and moved into a new position as a Cabling Estimator. As cabling estimator Anthony has gained a knowledge base of how to operate within quosal and how to articulate clean, thorough, and intelligent SOW's.

## EDUCATION

Landstown High School

## CERTIFICATIONS

DCJS- Electronic Security Technician



# Brian Strode

Cable Installer

[bstrode@abstechnology.com](mailto:bstrode@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

### Campostella STEM Academy, NPS, Norfolk, VA

Worked with Anthony learning the how to complete normal tasks asked of a Cable Tech. i.e. (Termination, 2 post rack installation, cable pulling, testing copper, grounding and bonding, AP installation)

### Richard Bowling ES, NPS, Norfolk, VA

Assisted in pulling fiber with Derek, Anthony, and Matt. Was given my first closet to dress in and terminate.

### NRHA Main Office, Mike Diaz, Norfolk, VA.

Learned how to terminate fiber with Anthony and was given the chance to terminate a few of the wires.

### Continental Automotive, RJ Erickson, Newport News, VA.

Was given the chance to dress in and terminate fiber into 12 pack and was able to do 3 of the 4 fiber enclosures.

### Isle of Wight PS, IOWPS, Isle of Wight, VA

Routed fiber in WSES, CES, HES. Assisted in hanging projectors, screens, and speakers. And mounted AP's.

### YVBC, Tom Wilder, Virginia Beach, VA

Assisted in running a dual backbone run from MDF to IDF. Dressed in lines to new IDF and punched down to PP.

### Valeo, Doug Paasch, Newport News, VA

Assisted in routing cables in both the office and warehouse areas. Dressed in cables to MDF side and terminated them.

### CRHA, Bob Sullivan, Chesapeake, VA

Installed PoE phones to CRHA main office and all satellite locations around Chesapeake.

### NRHA Whitaker Ln., Mike Diaz, Norfolk, VA

Installed AP's and Antennas for a wireless bridge and installed raceway in office for 13 new drops in building. Dressed in and terminated Wall mounted closet.

## OVERVIEW

Brian Strode began working at ABS in March of 2016 as a Cable Tech. He came into the field with framing and plumbing in his background. Brian has worked on many of the different major projects throughout 2016. Strong expertise in general commercial construction and a good grasp on the data field.

## EDUCATION

High School Graduate  
Some College

## CERTIFICATIONS

DCJS



# Charles Hudgins

Structured Cabling Manager  
chudgins@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Centra Healthcare, Lynchburg VA

Worked on Design, quoting and implementation of roughly 10 projects at various facilities over the last 3 years.

### Carilion Clinic, Roanoke VA

Worked on Design, quoting and implementation of 3 projects at various facilities over the last 2 years.

### Liberty University, Lynchburg VA

Worked on Design, quoting and implementation of 22 projects at various facilities over the last 3 years.

### Wise County Public Schools, Wise VA

Worked on Design, quoting and implementation of Structured Cabling infrastructure to support county wide wireless project.

### Orange County Public Schools, Orange VA

Worked on Design, quoting and implementation of Structured Cabling infrastructure to support county wide wireless project.

### Century Link/Longwood College 2016 Vice Presidential Debate Cabling Project

Worked on Design, quoting and implementation of Structured Cabling infrastructure to support cabling for the debate.

## OVERVIEW

Charles began working at ABS in September of 2012 as a Structured Cabling Manager and has worked in Presales and Cabling Manager types of projects: i.e Higher Ed, Healthcare, Large and Small Business Environments, K-12, etc deploying complex Structured Cabling Projects. Strong expertise in Structured Cabling Design, Estimating and Implementation.

## EDUCATION

Salem High School

## CERTIFICATIONS

Panduit PCI





# Charles Hudgins

Has achieved

**Enterprise Structured Cabling Deployment Certification**

**on 2017-01-18**

This certificate is only valid for employees or representatives  
of an active Panduit ONE<sup>SM</sup> Partner company.

**Date of Expiration**

2018-01-17





# Chris McCorkle

Structured Cabling Technician  
cmccorkle@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Carilion Ivy Market, Carilion, Roanoke VA

Worked as the Lead Cable Tech in a new construction setting for the wiring of a new Orthopedic and Neuro Science health center. Installed J-hooks and designed wirepaths. Ran copper/fiber network and voice cables for eight different closet locations, each closet had an average of 300 network locations. Interconnected all network closets to the MDF using 24 strand 50 multi mode fiber and 100 pair copper cable. Terminated fiber using OCC pre-polished LC cam connectors. Terminated work area locations using supplied OCC rj45 110 punch down jacks, installed wall plates, labeled all wires correctly, terminated all cables in rack patch panels and certified all cables using a Fluke DSX-5000 tester. Built network racks for floor mount installation and installed ladder rack with all necessary hardware. Communicated with Carilion and Turner Long Construction contacts to ensure all deadlines were met on time.

### Salem Water Treatment Plant, Salem VA

Lead Cable Technician, assisted with presales, quoting, and overall project management. Worked with the Salem City IT managers to install 11 new outdoor IP Axis Cameras. Determined wirepaths for Cat6 feeds for the new camera locations. Bent and installed EMT conduit for necessary locations. Used a 60' outdoor boom lift to install cameras after all cables had been terminated and tested. Communicated with customer to ensure obligations were satisfied.

### Alleghany High School Wireless Refresh, Alleghany VA

Lead Cable Technician. Pulled and terminated Cat6 for 46 new AP locations. Installed J hooks where needed. Installed new 7' rack at MDF. Used Fluke DSX-5000 to test all cables installed. Communicated with customer to ensure obligations were satisfied.

## OVERVIEW

Chris is a Lead Network Cabling Technician that joined the ABS team in 2015. He attended the College of Charleston and Virginia Tech before beginning his career with a Virginia-based company designing & installing home theater systems, cable & satellite, and security systems where he spent eight years. At ABS, Chris pulls, terminates, and tests fiber optic and copper network cabling for ABS clients. He installs ip cameras and Access Points along with cleaning up existing Rack cabling on working routers and switches. He also guides other cable technicians who work with him teaching them proper cabling installation techniques from Rack/Closet installations to Work Area Outlet terminations with a focus on attention to detail. Chris takes pride in his work and wants every install to look magazine worthy.

## CERTIFICATIONS

DCJS

RE35 Electronic Security Technician

Panduit Fiber & Copper

Paxton Access Control Technician

Ortronics Fiber & Copper

Control 4 Automation Technician

Control 4 Automation Sales 1 and 2

# Chris McCorkle

Has achieved

**Enterprise Structured Cabling Deployment Certification**

**on 2017-01-27**

This certificate is only valid for employees or representatives  
of an active Panduit ONE<sup>SM</sup> Partner company.

**Date of Expiration**

2018-01-27





# Dante Green

Lead Structure Cabling Technician  
dgreen@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**St. Mary's Hospital Case Work, Bon Secours  
Richmond, VA**

Various case work throughout facility including installation of new cat5e data cabling, relocation of existing lines, demolition of unused cabling infrastructure.

**Wise County Public Schools IPVS Cabling  
Wise County Public Schools, Wise County, VA**

Installation of cabling infrastructure for security cameras. Mounting of security camera hardware throughout facility.

**Fulton Financial Case Work, Fulton Financial  
Various Sites, VA**

Various case work throughout multiple sites including cat5e installation and work on existing POTS lines.

**Sentara Halifax Wireless Upgrade and Expansion,  
Sentara Health System, Halifax County, VA**

Installed new wireless access points throughout six facilities in Halifax County, Virginia. Coordinated with on-site contacts to repurpose existing lines and install new copper cabling wherever needed.

**City of Richmond Public Schools Wireless Upgrade,  
City of Richmond Public Schools, Richmond VA**

Updated existing wireless access points and installed new access points throughout school buildings and offices.

**Blackmesh WLAN Buildout,  
Blackmesh INC, Ashburn, VA**

Installation of cabling and new access points throughout office environment.

**VIDC Case Work,  
Public Defender's Office, Richmond, VA**

Installation of cabling throughout courthouse and office environment in Richmond, VA.

## OVERVIEW

Joining ABS in 2016, Dante has over 20 years of military and civilian telecommunication experience. Dante has been on both small and large scale, structured cabling projects throughout the metro-Richmond area.

## EDUCATION

Virginia Commonwealth University  
Major: Mass Communications  
US Army Signal Support Systems  
Specialist

## CERTIFICATIONS

DCJS  
Hilti Powder-Actuated tools



# David Burnopp

Led Technician

dburnopp@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Vice Presidential Debate Cabling Implementation, Longwood University, Farmville, VA.**

Pulled category 6 and coaxial cables to supply debate personnel and media data, phone, and television so that the debate could work flawlessly.

**Wireless Refresh, Wise County Schools, Wise, VA.**

Pulled category 6 cables to every classroom and terminated the cables with Panduit Minicom jacks. Hung swing out racks on closet walls.

**Cabling Implementation, Centa Health, Lynchburg, VA.**

Pulled category 6 cables to designated locations on our blueprints and terminated the cables with Panduit Minicom jacks. Erected rack in closet and routed cables in.

**Wireless Refresh, Orange County Schools, Orange, VA.**

Pulled category 6 cables to every classroom, terminated the cables with Panduit Minicom jacks, and hung Aero Hive access points in designated locations around the schools.

**Closet Clean-Up, Carilion Clinic Systems, Southwest, VA.**

Performed closet clean up at various different locations. To remove old jumpers (without outages) and install new ones in a new more updated manner to include switches and UPC's.

**Wireless Refresh, Alleghany County Schools, Alleghany, VA.**

Pulled category 6 cables to every class room, terminated cables with Panduit Minicom jacks, hung Cisco access points in each room.

## OVERVIEW

I came to the field with little experience and quickly worked my way up to a Lead Technician.

## EDUCATION

High School Graduate

## CERTIFICATIONS

Panduit Certification



# Deante Jones

Structured Cabling Technician  
djones@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Wireless Access Point Installation, Greene County Public Schools, Ruckersville VA

Installed new access points in various schools throughout the county in order to improve the wireless network infrastructure.

### 2016 Vice Presidential Debate Cabling, Longwood University, Farmville, VA

Installed voice and data infrastructure for debate utilizing copper and coaxial cable. Terminated numerous data outlets with RJ-45s and F-connectors. Helped retrofit gymnasium into debate hall.

### Cisco IPVS, Wise County Public Schools, Wise, VA

Installed new cabling infrastructure for security cameras throughout the county's schools.

### Sentara Halifax Wireless Upgrade and Expansion, Sentara Health System, Halifax County, VA

Installed new wireless access points throughout six facilities in Halifax County. Coordinated with on-site contacts to repurpose existing lines and install new copper cabling wherever needed.

### City of Richmond Public Schools Wireless Upgrade, City of Richmond Public Schools, Richmond VA

Updated existing wireless access points and installed new access points throughout school buildings and offices.

### St. Mary's Hospital Case Work, Bon Secours Richmond, VA

Various case work throughout facility including installation of new cat5e data cabling, relocation of existing lines, demolition of unused cabling infrastructure. Has also assisted on VOIP phone deployments.

### Optical Fiber Troubleshooting, Cumberland County Public Schools Cumberland County, VA

Worked to identify and troubleshoot problems with fiber optic network. Assisted with location of problems and retermination of fiber.

## OVERVIEW

A newcomer to the field, Deante began working with ABS in 2016.

## EDUCATION

LC BYRD HIGH SCHOOL

## CERTIFICATIONS

DCJS



# Derrick Freeman

Senior Lead Technician

dfreeman@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Campostella STEM and Richard Bowling ES, Norfolk Public Schools, Norfolk, VA

Installed new CAT6 cabling for data, voice, cameras, and access points. Installed fiber backbone to each IDF. Worked with SB Ballard, ASI, and Norfolk Public Schools to coordinate any changes or specific locations for devices. Designed drawings to show labels and drop locations for future reference

### Truck Enterprise, Hagerstown, MD

Coordinated with networking and cabling team to install paging system, door access, cameras, access points, data, and voice within new building. Installed all lines to various equipment. Worked with A/V contractor to ensure work to be completed within deadline and within proper locations. Compiled drawings to coordinate cabling with each device and devices specific information.

### VBPS Wireless Upgrade, Virginia Beach Public Schools, Virginia Beach, VA

Installation of multiple new cable lines for new access points and relocation of old access points. Designed and created drawings and spreadsheets to coordinate with various sites, along with devices information.

### RPS Wireless Upgrades, Richmond Public Schools, Richmond, VA

Installation of new lines at multiple Richmond public school sites. Worked with Richmond Public Schools to determine best plan of attack for budgeting purposes. Deployed new and old devices to expand wireless technology at sites.

### Bon Secours Wireless Upgrade, Bon Secours Richmond, Richmond, VA

Installation of new cabling at Bon Secours MRMC and Bon Secours St. Mary's hospitals. Deployed new devices on multiple floors in various locations within the main hospitals. Designed and created drawings and spreadsheets to coordinate with locations. Followed all safety rules and fire codes.

## OVERVIEW

Derrick attended ITT Technical Institute, where he studied computer network systems. Acquiring an associate's in applied science degree in information technology/computer network systems in 2009. Derrick has been in the IT/telecommunications field since 2006. He joined ABS in 2011.

Derrick has a variety of experience dealing with various networks, phone systems, as well as fiber. After joining ABS, he has continued to grow and learn more working with School systems, Healthcare, Commercial, Industrial, and Government facilities. With his widespread knowledge of different cabling systems, he goes above and beyond to keep clients satisfied, which has helped the Virginia Beach cabling office to grow as well. Teaching and assisting clients as well as new hires with any questions or tasks.

## EDUCATION

ITT Technical Institute – Associate of Applied Science Degree in Information Technology/ Computer Network Systems 2009

## CERTIFICATIONS

Panduit Certified  
Hilti Certified  
Fluke Test Certifications  
VA DCJS Registration: ES Sales, ES Technician, Locksmith



# Jamie Thomas

Lead Technician

jthomas@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Truck Enterprise – Hagerstown, Maryland

- Complete Cisco Door Access Control on 12 doors, including door sensors, PIR motions, card readers and programming the gateway.

### Suffolk Public Schools – Suffolk, Virginia

- Complete Cisco Door Access Control on 31 doors at 7 different schools including door sensors, PIR motions, card readers and programming the gateways.
- Installed outdoor 2n Helios camera's 1 at each of the 7 schools.

### Aerojet Rocketdyne – Orange County, Virginia

- Complete the Sip Fiber project
- Fusion spliced a 6 strand SM fiber at each of the buildings outdoor roadside pedestals.
- Fusion spliced a 6 strand SM fiber in each of the 4 buildings.
- Fusions spliced all 24 strands in each of the main MDF with LC fiber pigtails.
- Labeled all fiber optics, labeled all fiber enclosures.
- Tested all fiber.
- Completed and uploaded all test results to the project.

### Ratcliff Elementary School – Henrico, Virginia

- Installed and programed a Valcom Class Connections Intercom system.
- Install included all new 45ohm speakers throughout the school.
- Trouble shooting problems with the existing speakers and wiring.

### Liberty Title and Escrow – Virginia Beach, Virginia

- Installed and programed a Paxton Access Control System

### Tidewater Finance Company – Virginia Beach, Virginia

- Installation of Paxton Access Control system.
- Configuration of the Server and multiple gateways.
- Installation of Video Insight CCTV system.
- Configuration of the Server and multiple.

## OVERVIEW

Engineer attended University at Buffalo where he studied Computer Science. Engineer began working at ABS in 2011 as a Senior Lead Technician and has worked in many types of projects: Deploying Access Control and CCTV in Public Schools. High level fiber optics and many Intercom deployments throughout Virginia.

Strong expertise in Access Control, CCTV and Intercoms.

## EDUCATION

University at Buffalo

## CERTIFICATIONS

Corning Fiber Optics Preferred Installer  
Panduit Certified Installer  
Fluke Network Tester Certified  
Hilti Firestop Products Installer  
DCJS: Electronic Security Technician,  
Electronic Security Sales Rep,  
Locksmith Valcom Certified System Installer  
Paxton Access Control Installation Specialist  
Panduit PCI-IA certified





# Jamie Thomas

Has achieved

**Enterprise Structured Cabling Deployment Certification**

**on 2017-01-20**

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**Date of Expiration**

2018-01-20





# Jeremy Pittman

Cable Installer

jpittman@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Norfolk redevelopment and housing authority, City of Norfolk, Norfolk VA**

They bought out the top three floors on the Norfolk pnc building. ABS demoed the structured cables present. We then added two drops to each office as well as drops to cubicles.

**Norfolk public schools, city of Norfolk, Norfolk VA**

Worked in multiple schools over a course of five months with Russel. Mounting access points to ceiling grid and brick mounts. Pulling cables to each classroom.

**Tidewater Finance, Tidewater Finance Company, Norfolk VA**

Pulled multiple cables for outer and inner door access for Jamie. Two new drops added for management area.

**Isle of Wight Public schools, City of Suffolk, Suffolk VA**

Helped Andrew Trana mount projectors and projector screens.

**Valcom install Henrico county public schools, Richmond VA**

Installed intercom speaker and two way speakers for intercom install for Henrico county public schools. Worked at Sandston ES and Godwin HS.

**300 club telethon, Virginia Stage Company Norfolk VA**

Went with Anthony to extend cabling through patch cords to a central location. Site was set a nonpermanent stage for a weekend telethon.

**Naval base classrooms, Rencon Construction, Norfolk VA**

Four classrooms that are self-sustaining cable system. 24 drops each room with cabinet in each room. All drops will be face plated and labeled with the military's scheme.

**City Hall Fiber Pull, City of Portsmouth, Portsmouth VA**

Still in progress, fiber will be pulled from box office to city hall. Half of pull will be out door and underground. Other half is running through parking garage and up to second floor.

**Hagerstown paging system, Truck enterprises, Hagerstown VA**

Paging system had a buzzing noise. Troubleshoot the system to find a piece of equipment installed that didn't belong.

## OVERVIEW

Jeremy began working with abs in May of 2016. Building experience through working with different teammates and job sites, continuing to work towards a better understanding and knowledge of installing cable.

## EDUCATION

Lloyd Memorial High School



# Jesse Dibble

Senior Lead Cabling Technician – Roanoke  
jdibble@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Virginia Military Institute, Lexington Virginia

I joined an already deployed team of cabling techs in the installation, testing and deployment of Meraki access points throughout all 3 dorms on campus.

Liberty University Medical School, Lynchburg Virginia

Construction and installation of eleven 2 post racks and ceiling level ladder tray. Pulling, labeling, terminating in the work area and terminating in the IDF closets 1200 cat6 Plenum cables; 656 Audio Visual cables to include Microphone (16/3), camera power (22/2), lighting triggers (18/6), Coaxial cable (1694A), and cat6 Plenum; Access Control Multi cable; termination of Fiber Optic Cable in a looped pattern from the 1st floor to the 4th floor.

Future projects are to include additional ladder tray in several IDF's for multi layers of cable, 144 strand fiber termination at the Medical school and the source on campus, 55 additional cat6 plenum pulls for the network

CCS, Christiansburg Virginia

This project consisted of an add-on office building for CCS. We installed 48 runs of cat6 throughout new office construction to predetermined office locations according to the blueprints. A 25 pair and fiber strand was run underground from the existing office IDF to the new office IDF. This is an expanding project that will include more cat6 runs as the office building grows.

Centra Health, Gretna Virginia

New construction facility consisting of two data closets, one MDF and one IDF. We pulled 1200+ cat6 cables in a new medical facility. We also pulled access control cable to multiple door locations for a separate door integrator to connect his hardware from the door locations to the nearest closet.

We tested all cables and provided the end user with completed results and drop locations.

## OVERVIEW

Jesse is a Virginia native growing up in Orange County VA and Charlottesville VA. After serving in the US Navy, his career migrated into Law Enforcement with 16 years of experience. He began working at ABS in 2013 as a Senior Lead Structured Cabling Technician.

## EDUCATION

Central Shenandoah Criminal Justice Training Academy

## CERTIFICATIONS

Paxton Access Control Installer  
Millennium Access Control  
VA DCJS; Electronic Sales;  
Technician; Locksmith  
VA DCJS; Law Enforcement Officer  
Panduit PCA-IA  
Hilti – Powder Actuated; Fire Stop

## Advance Auto, Dayton Ohio

Advance Auto was having an issue with their intercom system in several departments of their distribution facility. I determined they were using too many speakers on one leg of an amplifier. I traced all of the speaker back and created a map of deployment. We determined they would need two additional amps. The parts were ordered and I returned two weeks later to install.

## Truck Enterprises Inc.; Roanoke, Richmond, Manassas, Harrisonburg, Lynchburg Virginia, Keyser WV

Multiple jobs over a 4 month span for data, voice and intercom. Each location is designed similar, but has its own variation depending on the facility.

## Virginia Military Institute, Lexington Virginia

VMI performed a study of their wireless coverage and needed several Wireless Access Points moved from one room to another. Data drops from the rooms above needed to be removed a console and pulled into the room below. They were terminated with a RJ45 due to space constrictions.

## Carilion Medical, Roanoke Virginia

New construction facility consisting of six data closets, one MDF and five IDF's. Each IDF had a 12 strand fiber home run back to the MDF for termination. Each closet had two 100 pair feeder pairs home run back to the MDF for termination on wall mounted 100 pair blocks. Each closet had roughly 300 cat6 drops run back to the designated closet. Each run was terminated and tested. We also pulled cat6 cable for IP cameras and Wireless Access Points. There are also two additional sub-closets in the basement/garage of the facility. Each sub-closet has a 12 strand of fiber and a 50 pair for voice applications.

## Centra Health, Lynchburg Virginia

New construction facility for a health care system. Pulled 1100 cables into one MDF. We also pulled several access control cables for the security integrator to wire his hardware at the door and in the MDF. All data cables were terminated and tested.

## Liberty University, Lynchburg Virginia

5 other cable technicians and I were contracted for 4 weeks to assist the IT/AV department in punch lists before the first day of schools. This included fiber pulls from LaHaye fitness to the LaHaye ice rink. Data and AV drops inside of the ice rink. Data pulls in the new dorms. Removal and deployment of new cables the Religious Studies building.

## Norton City Schools, Norton Virginia

Several projects in the Norton Schools.

Burton High School; We pulled cable for and installed the hardware for an Access control system and IPVS Video surveillance system. As well as data pulls for new Wireless Access Points.

Norton Middle and Elementary School; Pulled data cables for Wireless Access Points, Access Control and IPVS Video Surveillance.

## Wise County Public Schools, Virginia

Multi school (7 of 12) project that included pulling cat6 cables for a future Wireless Access Point project from either an existing MDF or IDF, or creating a new IDF.

## Longwood University – Vice-Presidential Debates (2016), Farmville Virginia

This project consisted of several locations within Longwood University for the Vice-Presidential debates (2016); Media Center, Spin Alley, Main debate hall, Outdoor media Standups, surrogate locations

Media center consisted of 730 cat5e cables pulled from desk locations to designated mobile rack enclosures on the media center floor; 200 cat5e cables pulled for 4 analog voice pairs at the media desk locations; 100+ coaxial cables pulled to a T-tap providing the debate broadcast; fiber optic cable to the MDF on the mezzanine level.

Spin Alley consisted of 120 cat5e cables pulled from sectioned off locations for media outlets; 33 coax cables for the debate broadcast.

Main debate hall consisted of 200+ cat5e between the media stand ups, Dark Room desk stations and surrogate rooms.

Outdoor Media Standups consisted of 75 cat5e cables pulled to designated media locations; 75 cat5e cables for 4 voice pairs and 50 coaxial cables for debate broadcast.

Over all the projected was measured to be 75 miles of cat5e, 8 miles of fiber optic cable and 12 miles of Coaxial cable.



# Jesse Dibble

Has achieved

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# John Kelly

Cabling Technician

[jkelly@abstechnology.com](mailto:jkelly@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

**Fiber Optic Implementation, Carilion Hospital, Roanoke, VA.**

Installed cabling for the new Fiber optic backbone of 10 floors over 20 locations with more than 600 terminations to include testing of 50/125 fiber at the hospital building in Roanoke, Va. Installed new telecom rack and numerous wall mounted enclosures with grounding and three outlying locations on the campus.

**Closet Clean-Up, Carilion Clinic Systems, Southwest, VA.**

Performed closet clean up at various different locations. To remove old jumpers (without outages) and install new ones in a new more updated manner to include switches and UPC's.

**Structured Cabling Infrastructure Implementation, Carilion Clinic ION, Southwest, VA.**

Installed Backbone cabling for telephone (POTS) between locations within building. Installation testing and labeling of wall and cubicle, camera and access points throughout the building.

**Structured Cabling Infrastructure Implementation, Radford University, Radford, VA.**

Installed structured cabling, labeling and testing for the new data, access points, and VOIP systems. Installed access control and camera cabling. Installed new telecom racks with grounding and terminations within five locations (MDF and four IDFs) all on different levels within the structure.

**Structured Cabling Infrastructure Implementation, Centra Hospital, Lynchburg Internal Medicine, Lynchburg, VA.**

Installed structured cabling for the new data, access points, telephone, nurse call and speaker cabling of the hospital, which included all labeling and testing. Installed new telecom racks with grounding and terminations within one main location (MDF) within the structure.

## OVERVIEW

Jeff Kelly came to ABS with over 20 years of telecommunications experience with the United States Army.

## EDUCATION

Farrington University -B.S. degree in Telecommunications

National College – A.A.S. degree in Information Systems Engineering

## CERTIFICATIONS

CFOT – Certified Fiber Optics Technician (#2184984)



# Karl Mistele

Lead Technician

[kmistele@abstechnology.com](mailto:kmistele@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

### Lynchburg Internal Medicine, Centra Health, Lynchburg, VA

Ran 750 cables which included Data, Voice, card access, Nurse Call, speaker and coax. This project also included the building of the Network Closet/MDF.

### VA Dept. of Health, Centra Health, Lynchburg, VA

Ran 375 cables which included Data, Voice, feeder and coax. Relocated and redesigned ladder racking in MDF.

### Radford Science Building, Radford College, Radford, VA

Ran 2300 cables which included Data, card access, audio visual and coax. Installed WAPS and Cameras.

### Centra PACE, Centra Health, Gretna, VA

Ran 115 cables which included Data, Nurse Call, Speaker and coax. Designed ladder racking in existing closet/MDF.

### Centra Langhorne, Centra Health, Lynchburg, VA

Ran 600 cables which included Data, Voice, Fiber and coax. Also the building of 3 network closets. MDF/IDFS.

### Centra Danville, Centra Health, Danville, VA

Ran 500 cables which included Data, Nurse call, Access control, Speaker and coax. Also built the MDF.

### Centra Rivermount, Centra Health, Danville, VA

Ran 125 Data and coax cables. Built small MDF.

### Botetourt District Court 2016, Fincastle, VA

Ran 70 Data and multi-mode, Fiber Optic cables.

## OVERVIEW

Karl joined ABS in 2014 as a Structured Cabling Lead technician. He has a world of knowledge and experience in the business. He has been in structured cabling since 1999.

## EDUCATION

Kathrine Gibbs School of Business.

## CERTIFICATIONS

Panduit – Copper and Fiber  
Installer  
Hilti  
OSHA





# karl mistele

Has achieved

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## OVERVIEW

Mike joined ABS after spending 12 years selling cameras and photography services before making the jump to network cabling at ABS. He will tell you that he likes the IT field though, saying there is always something new to learn. At ABS, he works alongside other engineers pulling network cabling and mounting equipment, and leaving network closets looking flawless!

## EDUCATION

Virginia Commonwealth University  
2 years

## CERTIFICATIONS

DCJS

# Michael Creasy

Structured Cabling Technician

mcreasy@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Longwood University, Vice Presidential Debate  
Farmville, VA**

Set up data cabling for VP debate. Installed hardware in network cabinets. Added fiber optic, and backbone cabling to link up network cabinets.

**St. Mary's Hospital Closet Refresh, Bon Secours  
Richmond, VA**

Updated switches in 27 data closets throughout hospital. Minimized cutover time while installing new cabling and network hardware. Worked on design and implementation.

**City of Richmond Public Schools Wireless Upgrade,  
Richmond VA**

Updated existing wireless access points and installed new access points throughout school buildings and offices. Worked on design and implementation.

**Orange County Public Schools Wireless Upgrade, Orange, VA**

Installation of wireless access points, and network cabling throughout schools in the county.

**West Point Public Schools Fiber Upgrade, West Point, VA**

Installed and certified new fiber runs between, and within two schools.

**Bon Secours Hospital Network Upgrade,  
St. Mary's Hospital, Baltimore, MD**

Complete network upgrade from cat5 to cat6 and new fiber backbone throughout the entire facility. Built out new data closets as part of phased approach.

**Godwin High School Valcom Upgrade, Henrico County, VA**

Installed outdoor horns at school. Assisted with toning out existing lines to extend out 25 pair in network closet.



# Mike Creasy

Has achieved

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2018-02-20





# Russell Carlson

Lead Cable Technician,  
rcarlson@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

### Norfolk Public Schools – 26 Schools

Installed Cat6 cable lines following prints. Mounted and secured Cisco access points.

### Sentra – 7 Major Facilities and Several Satellite Facilities

Installed Cat5e network lines, mounted access points, and installed fire sleeves. Work with staff for ceiling permits.

### High Liner Foods – Newport News

Worked in freezer for coax install with cold weather access points.

### Isle of Wight – Co-public Schools

Installed new CAT6/CAT5E runs, terminated ends, mounted indoor/outdoor security cameras, installed rapid runs for projectors and teacher plates, mounted projectors with mounts, and mounted security phones for classrooms.

### Atlantic Shores Christian School – Virginia Beach, Va.

Installed fiber runs, installed a rolling rack/cabinet, mounted projectors/speakers, installed paging system, and installed rapid runs for projectors from teacher plate.

### Truck Enterprises Inc. – Chesapeake / Virginia

Installed CAT6 runs, mounted indoor/outdoor wireless access points, and mounted and installed a 2 post rack.

### Rappahannock Regional Jail – Stafford, Va.

Installed media converter and CAT5E patch cords. Performed walk through of building for troubleshooting potential problems.

### Nitto Denko Automotive – Chesapeake, Va.

Provided new install of cable pathway network drops for new addition.

## OVERVIEW

Russell is a Lead Structured Cabling Technician for ABS who joined the team in 2013. Skilled in copper and fiber installations, Russell is responsible for onsite project management as well as running and terminating network cable for ABS clients. He attended Advanced Technology Center focusing on telecommunications and fiber optic installations and went on to spend 6 years at Cox Communications.

## EDUCATION

Electric I & II at Salem High School  
Telecomm I & II at Advance  
Technology Center

## CERTIFICATIONS

Hilti Powder Actuated Tools  
Hilti Firestop Systems  
DCJS Locksmith  
DCJS Electronic Security  
Technician



# Russell Carlson

Has achieved

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# Simi Kavakava

Cable Technician

skavakava@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Inventory Manager, ABS Warehouse, Virginia Beach, VA**

- Shipment receiving
- Warehouse supply organization
- Project supply preparation
- Fleet management responsibilities

**AP Installation, Norfolk City Public Schools, Norfolk VA.**

Assisted in pulling and routing cables for access points throughout all of the schools. Once the cables were in place we terminated the cables and hung the AP's in the locations specified on the prints.

**Cabling, Suffolk Public Schools, Suffolk VA.**

Pulled, terminated and tested cables. Fixed three doors throughout the school.

**AP Installation, Campostella Public School, Norfolk, VA**

Assisted with the installation of APs campus wide, including appropriate labeling. Also pulled and terminated cable to support the infrastructure. Mounted IP phones to the wall throughout school.

**Richard Bolling Public Schools, Norfolk, VA**

Pulled, terminated and tested cables to support infrastructure. Mounted APs.

**Tidewater Finance, Virginia Beach, VA**

Pulled fiber, terminated cable, labeled faceplates and tested cables.

**Norfolk Redevelopment and Housing Authority, Norfolk, VA**

Pulled and terminated cable, labeled faceplates, tested cables, drilled holes for cable pathways.

## OVERVIEW

Simi joined the ABS Cabling team in 2016 as Inventory Manager. Simi is in charge of incoming and outgoing shipments from the ABS warehouse. Simi also assists on cabling projects as needed including mounting APs, pulling cable, and testing.

## EDUCATION

Taufa'ahau Pilolevu College, Tonga

## CERTIFICATIONS

DCJS Certified

## Appendix C: Project Profiles for the ABS Project Management Team



# Cheng Tu

Manager PMO

ctu@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

Manager PMO, ABS Technology

Responsible for creating, establishing and developing Project Management Office Processes and Procedures. Responsible for overseeing and supporting all Professional Service projects. Manage and mentor PM team handling 200+ simultaneous projects ranging from \$2000 to multi-million dollar projects.

Senior Project Manager, ABS Technology

Responsible for managing a multitude of projects in the healthcare, insurance, banking, K12 and higher education and technology industries; delivering these projects across various technology platforms. Managed projects valued at more than \$25 million that included multiple levels of developers, engineers and stakeholders.

Senior Network Engineer, ABS Technology

Performed on multi-functional teams while designing, managing, installing/upgrading and integrating network, data center, and IP Video Surveillance Solutions for colleges, universities, school districts, city, county, and state customers. Consulted on best practice network design solutions, migrations, upgrades, disaster recovery, high availability, and future planning solutions for clients.

Director of Instructional and Administrative Technology,  
Danville Public Schools

Oversaw \$8 million Magnet Program along with an over \$2 million district technology budget. Planned, developed, analyzed, and implemented technology for a district with nearly 10,000 users, 23 sites, and over 4,000 networked computers on a fiber optic MAN. Oversaw State reporting of information to comply with the performance indicators set by the State to maximize final fiscal year direct aid entitlements for the district budget.

## OVERVIEW

Over 20 years' experience in Information Technology, Technical Instruction, Services Implementation and Delivery, Technical Presales, and Project Management.

**Specialties:** Professional Services, Virtualization, IP Video Surveillance, IT Strategic Planning, Budgeting, Project Lifecycle Coordination & Management, Overall Team Management, Vendor Relations, Program Management, and Project Management.

## EDUCATION

Averett University  
Master of Business Administration

## CERTIFICATIONS

M B A  
MCSE  
CICSA (Email Security)  
MCT





# Philip Givens

Project Manager

[pgivens@abstechnology.com](mailto:pgivens@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

**Vice Presidential Debates, Longwood University, Longwood VA.**

This project consisted of a complete installation of the wireless, fiber and data infrastructure for the 2016 vice presidential debates.

**Carilion Community Hospital, Roanoke, VA.**

Complete replacement of the entire fiber backbone throughout the entire Hospital.

**Wise County Public Schools, Wise, VA.**

Managed the installation of the cabling infrastructure for the complete wireless deployment for the seven schools in Wise County, Virginia.

**Centra Health, Danville Medical Center, Roanoke, VA.**

Managed the installation of the network infrastructure for the Danville Medical Center in Danville Virginia.

**County of Botetourt, Botetourt, VA.**

Managed the installation of the data and fiber backbone infrastructure for the County of Botetourt in Botetourt Virginia.

**Fedstar Federal Credit Union, Salem, VA.**

Managed and designed new branch infrastructure

**Sentara Healthcare, Halifax, VA.**

Managed the installation of the network infrastructure for new wireless deployment thru out five large facilities in Halifax VA

**Radford University, Radford, VA.**

Managed the installation of the network infrastructure for new wireless deployment

**Russell County Public Schools, Lebanon, VA.**

Managed the installation of the video surveillance thru out the entire school system

## OVERVIEW

With over 20 years of experience in the cabling and telecommunications industry, Philip specializes in managing ABS's Structured Cabling projects. Philip is responsible for providing direction and project planning for both large and small projects managing fiber backbone installations, new construction, cable retrofits and wireless deployments throughout Virginia.

## EDUCATION

Virginia Western Community College

## CERTIFICATIONS

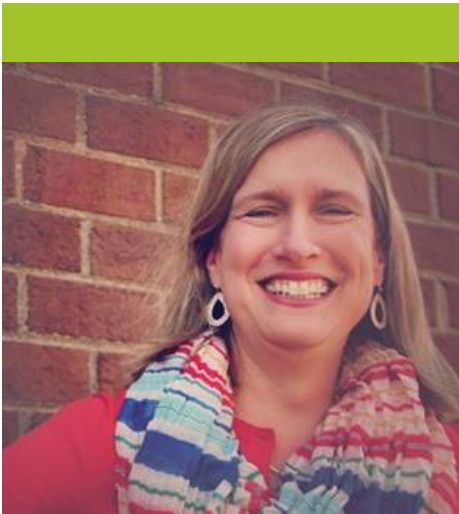
Siecor

Avaya

Mitel

Valcom

Paxton



# Kathleen Martin

Project Coordinator

[kmartin@abstechnology.com](mailto:kmartin@abstechnology.com)

## REPRESENTATIVE PROJECT EXPERIENCE

Various infrastructure upgrade projects, Greene County Public Schools, Stanardsville, VA.

Project manager on several projects to upgrade the district's wireless and wired infrastructure. ABS installed 240 Aerohive access points across six schools, upgraded core switches, deployed 10G links, and installed a wireless Aerohive bridge at the HS to connect to two mobile units.

Camera Addition, Server Upgrade and Core Stack Addition, Westminster Canterbury, Lynchburg, VA.

Project manager for the upgrade of the facility's Cisco VSM management server, installation of an additional outdoor security camera and adding a fourth switch to the client's core stack.

Elementary wireless upgrade projects, Richmond Public Schools, Richmond, VA.

Coordinated the upgrade of the existing wireless networks at four Elementary schools. Met with PM, school principals, Richmond IT staff, and ABS cable crews to install new cable drops and cisco access points, relocate and repurpose existing cable drops and access points, and install new wall brackets.

RGH NetBackup and UCS Storage Addition, Bon Secours Richmond, Richmond, VA.

Coordinated with Bon Secours Richmond Data Center team across three data centers to replace the backup system at Rappahannock General Hospital and standardize the environment with the NetBackup solution deployed across the Bon Secours Virginia enterprise.

Richmond Office Move, ABS Technology, Richmond, VA.

Project manager for the relocation of the Richmond office. Oversaw the physical relocation of the office including furniture, equipment, staff, and IT data center in a compressed time frame. Hired and managed multiple service providers and vendors for a smooth transition and successful go live on day one.

## OVERVIEW

Kathleen joined ABS in December 2014 with over 20 years of experience successfully leading change management and sales projects in the retail, paper and banking industries. Since joining ABS Kathleen has been an integral member of the PMO team focusing her analytical, planning, communication, and management skills on internal projects and managing projects for our education, small business and corporate clients.

## EDUCATION

Raymond A. Mason School of Business, College of William and Mary, MBA

Alleghany College, B.A.

## CERTIFICATIONS

DCJS



# Kelly Burton

Senior Project Manager

kburton@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Norfolk Public Schools – Campostella STEM/Richard Bowling ES**  
Cabling, Networking, Wireless and Voice Projects

These projects consisted of the installation of all data cabling, networking, wireless and voice hardware/infrastructure at two new schools for Norfolk Public Schools – Campostella STEM Academy and Richard Bowling ES. First all Cisco installations for Norfolk Public Schools and customer was extremely satisfied.

**Spirent Communications – UC IIX Migration Project**

Coordination of Cisco Unified Communications upgrade that took Spirent Communications UC systems to the latest releases (v11.5) and added full redundancy to all Unified Communications Application Servers to better align with Spirent's growth pattern over the next three years. All work was performed remotely and consisted of upgrades to Cisco CUCM, UCCX and CUC applications as well as firmware upgrades on 1200+ phones. Spirent Communications has offices all over the world and the upgrades were performed seamlessly.

**Checkered Flag – Wireless and Networking Upgrade Projects**

These projects consisted of networking and wireless infrastructure upgrades for five Checkered Flag dealerships in Virginia Beach, VA. Installation of new switching infrastructure and new wireless Access Points at each dealership provided increased wireless coverage and a much-needed boost in wireless speed at each dealership.

**Bon Secours Charity – VMWare Hosts and Storage Project**

Refresh of virtual environment for Good Samaritan Hospital in Suffern, New York. Coordination of the installation of two new Cisco UCS hosts, a new EMC Unity 300 Storage Platform with VMWare Enterprise Plus and VEEAM Backup and Replication Enterprise Plus licensing. After new hardware deployment, ABS worked with customer to migrate their existing virtual machines seamlessly to the new storage environment with no disruption to their Production environment.

## OVERVIEW

Kelly has achieved his PMP, CISSP, CCNP, MCSE, GSEC, ITIL Foundations and several Intermediate ITIL certifications. He has over 20 years of experience in information technology and project management. Prior to joining the ABS Team, Kelly was a Project Manager for HP handling enterprise level projects for federal, state and local government, education, universities, health care and major corporations. Prior to his work at HP, Kelly worked for government contractors CSC and CACI in support of Navy IT. Additionally, Kelly worked for the federal government for 18 years, starting out as a Nuclear Engineer and then moving into IT, specializing in networking and network security. Kelly is also an Old Dominion university graduate and received his Bachelors in Electrical Engineering in 1989.

## CERTIFICATIONS:

- Cisco CCIE Collaboration
- Cisco CCDP
- Cisco CCNP
- Cisco CCNA Voice
- Cisco IP Contact Center Express

### **San Mateo County, California – Network Upgrade Project**

This project consisted of a complete replacement of San Mateo County's core network infrastructure in six Data Centers throughout San Mateo County. Kelly replaced the existing project manager, adjusted schedules, coordinated downtime and cutovers with various county agencies and completed the project on-time and under budget.

### **St. Louis Community College – Data Storage Migration Project**

Coordination with St. Louis Community College personnel to schedule and perform 150TB data migration from existing EVA Storage Area Network over to new HP 3PAR SAN, including scripting support to ensure scheduled backups continue. Project completed with no loss of data.

### **East Greenbush Schools, NY – WLAN Upgrades**

Working with East Greenbush Schools providing an upgrade of their existing wireless network which included the installation and configuration of 433 new wireless access points across seven schools (Elementary, Middle and High School)

### **Washington Department of Licensing – Data Migration Project**

Coordination with Washington Department of Licensing personnel to schedule and perform 8 separate 30 TB data migrations from existing EVA Storage Area Network over to new HP 3PAR SAN, including scripting support to ensure scheduled backups continue. Project completed with no loss of data.

### **P&G – Voice Transformation Project**

Kelly provided PM oversight of several global projects for P&G including Centralized Voice Mail Support takeover, Japan Pricing initiative, OneBox VoiceMail Redesign Implementation for sites in Europe, Asia, North America and Latin America, Avaya Modular Messaging Relocation Project, and Voice Equipment Data Center relocation projects.



# Michael Pate

Project Manager

mpate@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**Virginia Beach City Public Schools- Network Edge Upgrade – Virginia Beach, VA. – 2016**

The WAN Edge and Distro switches at VBCPS were at End-of-Life, and while it is still supported until 2018, it was important to think about a suitable replacement for these switches and some beneficial features this replacement could offer VBCPS. After several technical discussions with the VBCPS technical team, the Cisco Catalyst 4500-X series switch is being chosen to seamlessly integrate into the VBCPS network. ABS installed (2) Cisco 4500x switches per site for a total of 83 sites. ABS was responsible for the configurations and setup of the Virtual Switching System(VSS) and OSPF network configurations were set up.

**Brunswick County Public Schools – Core and Wireless Refresh - Lawrenceville, VA. - 2016**

This project entailed an upgrade to the core at each site and a wireless refresh. A total of 236 Cisco 1702 wireless access points, two Cisco 4500x at each location, and replacing the Access Layer switch in each MDF with 2960x switches.

**Norfolk Redevelopment and Housing Authority, Office Relocation - Norfolk, VA. – 2016**

This project consisted of the installation of all data cabling, networking, wireless, virtual environment, and voice hardware/infrastructure for NRHA's new Central Head Quarters. The customer was extremely pleased with the outcome of the project and how it was performed under such tight constraints.

**Wythe County Public Schools, UC Deployment - Wytheville, VA. – 2016**

For this project ABS deployed a Cisco UC solution to the 6 schools covering Wythe's Western and Eastern regions. ABS deployed 6 voice gateways, configured 54 phones for the western region, and 55 phones with voicemail boxes for the eastern region schools. Training classes were held for WCPS end users on the functionality and unique features the new phones provided. The migration to the new gateways was seamless and outstanding reviews were presented post training.

## OVERVIEW

Since joining ABS in 2014 Michael has managed a variety of projects at ABS with progressively increasing budgets and technical requirements. He achieved his PMP certification in 2016 and was integral to the success of ABS's SharePoint integration. Michael handles government, education, health care, small business and corporate clients.

## EDUCATION

George Mason University, BA  
Economics.

Minor: Information Technology

## CERTIFICATIONS

PMP  
ITIL  
DCJS  
CSE



## OVERVIEW

Tara joined ABS in April of 2011 with over 4 years of Project Management Experience. Since working at ABS she has successfully managed an extensive variety of projects across all of ABS' technologies and markets. She especially excels in process improvement and skills analysis for large projects. Tara gained her ITIL certification in October of 2014 and also holds her Cisco Sales Expert Certification.

## EDUCATION:

Virginia Wesleyan College, BA in Communications, 2004

## CERTIFICATIONS:

ITIL – IT Management  
Cisco Sales Expert Certification

# Tara Hawkins

Project Manager

thawkins@abstechnology.com

## REPRESENTATIVE PROJECT EXPERIENCE

**MONROE BUILDING IT INFRASTRUCTURE, GOVERNOR'S SCHOOL FOR THE ARTS, NORFOLK, VA**

Provided project management for all our IT installations throughout the renovation of the Monroe Building located in downtown Norfolk. The Monroe Building was originally built in 1915 and was renovated with the purpose of housing the Governor's School for the Arts, a local arts high school, whose goal was to centralize the various departments into one building. This project consisted of numerous technologies: complete cabling, wireless, IPT, video surveillance, clocks, paging system, datacenter and infrastructure and door access technologies. Coordination was done with various city officials and entities and historical society members. The projects were completed prior to the grand opening ceremony on May 14, 2014.

**METRO WIRELESS MESH INSTALLATION, HOUSTON METRO, HOUSTON, TX**

Provided project management throughout the development, testing and installation of a wireless mesh system running on the Red Line Metro Track located in Houston, Texas. Coordinated with both Houston Metro and parent company Pfeiffer & Son for all testing and design work throughout installation. A total of 82 MESH Access Points were installed along the 8 mile stretch of tracks, with a total of 12 Access Points being directly mounted inside the Red Line train. This design allowed for consistent WiFi capabilities that spanned the full distance of the route for Houston Metro.

**GEORGIE D. TYLER MIDDLE SCHOOL INFRASTRUCTURE, ISLE OF WIGHT PUBLIC SCHOOLS, ISLE OF WIGHT, VA**

Provided project management throughout the construction of the new Georgie D. Tyler Middle School located in Isle of Wight, VA. Project included cabling throughout the school for various technologies, installation of speaker system for paging, installation of projector systems in all classrooms and respective screens, as well as a complete surveillance system on the interior and exterior of school. School was completed over the course of a year and a half and opened its doors to students Fall of 2014.

# Appendix D: ABS Certificate of Insurance



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
4/27/2017

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> London & Norfolk, Ltd. 999 Waterside Drive #2500 Norfolk VA 23510	<b>CONTACT NAME:</b> Edgar Isa <b>PHONE (A/C. No., Ext):</b> 757-623-0003 <b>FAX (A/C. No):</b> 757-623-0004 <b>E-MAIL ADDRESS:</b> eisa@lnorfolk.com														
<b>INSURED</b> ABSTE-1 Innovative Systems & Solutions Inc T/A ABS Technology 2809 S. Lynnhaven Rd, Ste 250 Virginia Beach VA 23452	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">INSURER(S) AFFORDING COVERAGE</th> <th style="width: 20%;">NAIC #</th> </tr> </thead> <tbody> <tr> <td><b>INSURER A:</b> Travelers Ins Co</td> <td></td> </tr> <tr> <td><b>INSURER B:</b> Phoenix Insurance Co</td> <td></td> </tr> <tr> <td><b>INSURER C:</b> Travelers Prop Casualty America</td> <td style="text-align: center;">25674</td> </tr> <tr> <td><b>INSURER D:</b> Travelers Indemnity of America</td> <td></td> </tr> <tr> <td><b>INSURER E:</b></td> <td></td> </tr> <tr> <td><b>INSURER F:</b></td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	<b>INSURER A:</b> Travelers Ins Co		<b>INSURER B:</b> Phoenix Insurance Co		<b>INSURER C:</b> Travelers Prop Casualty America	25674	<b>INSURER D:</b> Travelers Indemnity of America		<b>INSURER E:</b>		<b>INSURER F:</b>	
INSURER(S) AFFORDING COVERAGE	NAIC #														
<b>INSURER A:</b> Travelers Ins Co															
<b>INSURER B:</b> Phoenix Insurance Co															
<b>INSURER C:</b> Travelers Prop Casualty America	25674														
<b>INSURER D:</b> Travelers Indemnity of America															
<b>INSURER E:</b>															
<b>INSURER F:</b>															

**COVERAGES** **CERTIFICATE NUMBER: 1136118015** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC			H6304G088745PHX16	9/29/2016	9/29/2017	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
C	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			BA4G08649916TEC	9/29/2016	9/29/2017	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			HSMCUP4G088745TIL16	9/29/2016	9/29/2017	EACH OCCURRENCE \$3,000,000 AGGREGATE \$3,000,000 \$
D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	HHUB2379A81916	9/29/2016	9/29/2017	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$500,000 E.L. DISEASE - EA EMPLOYEE \$500,000 E.L. DISEASE - POLICY LIMIT \$500,000
C	Cyber/Professional Liability			ZPL91M427071613	9/29/2016	9/29/2017	Limit \$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

<b>CERTIFICATE HOLDER</b> Virginia Commonwealth University 912 W Grace St, 5th floor Richmond VA 23284	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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## Appendix E: ABS Class A Contractor's License

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-28-2019

NUMBER

2705092029

BOARD FOR CONTRACTORS  
CLASS A CONTRACTOR  
\*CLASSIFICATIONS\* ESC



INNOVATIVE SYSTEMS & SOLUTIONS INC  
ABS TECHNOLOGY ARCHITECTS  
2809 S LYNNHAVEN RD  
SUITE 250  
VIRGINIA BEACH, VA 23452



*Jay W. DeBoer*  
Jay W. DeBoer, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



CLASS A BOARD FOR CONTRACTORS  
CONTRACTOR

\*CLASSIFICATIONS\* ESC

NUMBER: 2705092029 EXPIRES: 02-28-2019

INNOVATIVE SYSTEMS & SOLUTIONS INC  
ABS TECHNOLOGY ARCHITECTS  
2809 S LYNNHAVEN RD  
SUITE 250  
VIRGINIA BEACH, VA 23452



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>




DPOR-PC (02/2017)

## Appendix F: ABS Structured Cabling Sales Slick

## STRUCTURED CABLING

ABS designs, installs, and services physical access 5e/6 copper and multimode/single mode fiber infrastructures for large facilities such as complexes, hospitals, warehouses, universities and K-12 environments.

### We design, install + service:

-  COPPER + FIBER INFRASTRUCTURES
-  ANALOG + IP LOUDSPEAKERS
-  PHYSICAL ACCESS

Let us build out your Data Center or clean up your closets.

-  RACKS
-  CABINETS
-  PATCH PANELS
-  GROUNDING
-  CERTIFICATION
-  FUSION SPLICING

### PARTNERSHIP AND SERVICE YOU CAN TRUST

ABS partners with leading manufactures and provide BICSI and vendor certified technicians and up to 25 year manufacturer warranties.



## COPPER + FIBER

Build your network on a solid foundation. ABS takes the time to inspect your site or architectural drawing to provide comprehensive design to meet your current growth standards. All infrastructures are installed according to BICSI standards, certified, labeled, and documented.

## INTEGRATED PAGING

ABS also designs, installs, and services analog and IP loudspeaker paging to include head-end equipment (amplifiers, power supplies, feedback eliminators, and control units) indoor and outdoor speakers (horns, flush mounted speakers, surface mount speakers) and volume controls.

## PHYSICAL ACCESS

Secure your environment, receive incident alerts, and protect your employees, students and investments through a robust physical security solution. Our team of physical access experts will survey your site to determine proper equipment placement, and certify full functionality of a video surveillance or access control solution.

## DATA CENTER CLOSET BUILD OUT + CLEAN UP

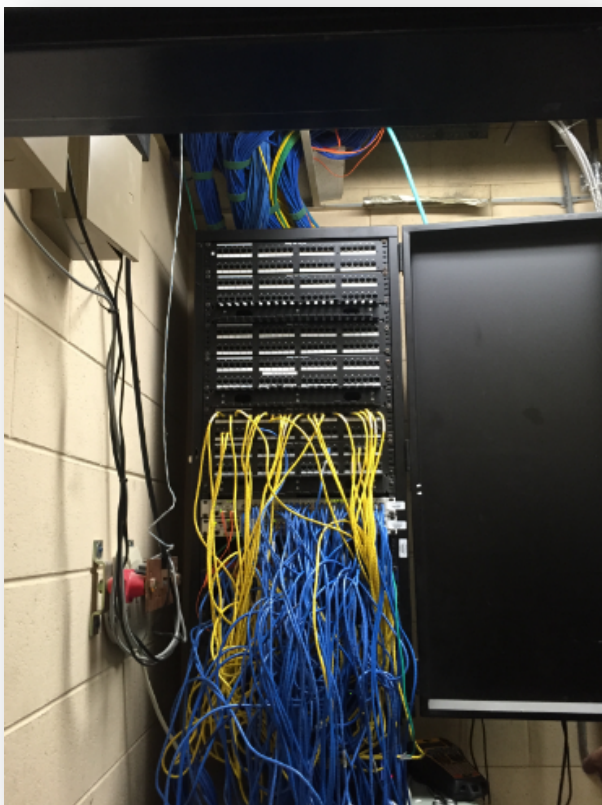
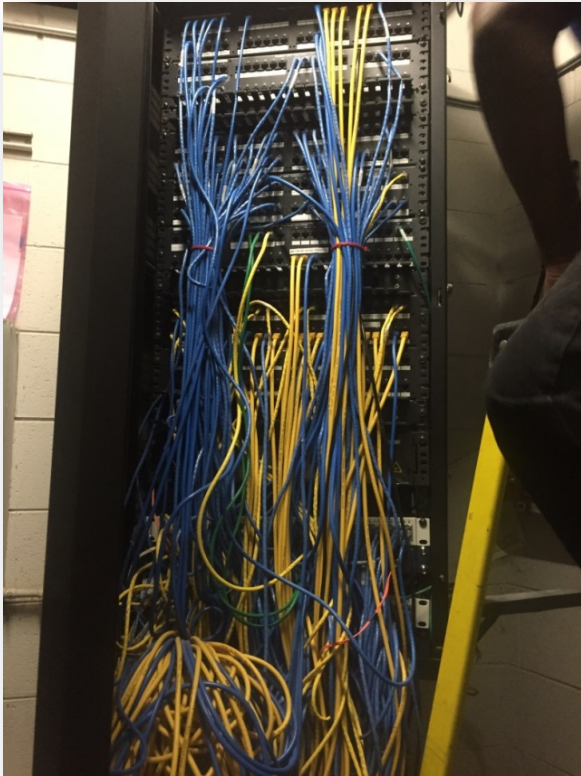
Simplify troubleshooting with a clean closet or start off on the right foot with a data center built out by ABS. ABS routinely installs cabinets, patch panels, ladder trays, and j-hooks. ABS also provides grounding, certification, and fusion splicing services.

## Appendix G: ABS Closet Clean-up Pictures

# Sample ABS Closet Cleanup

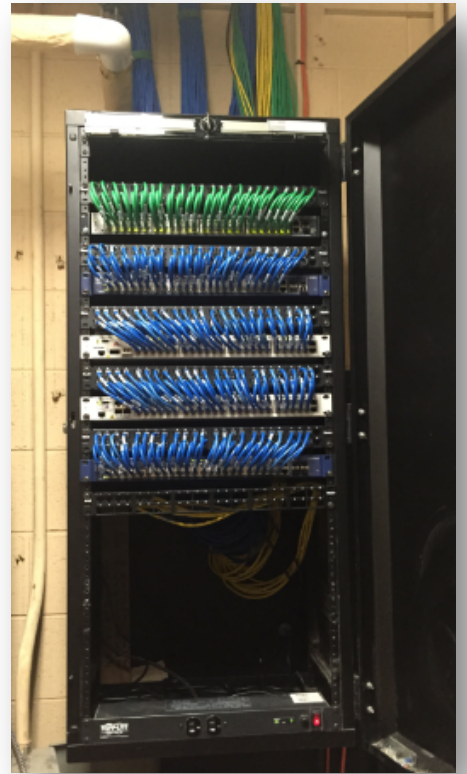
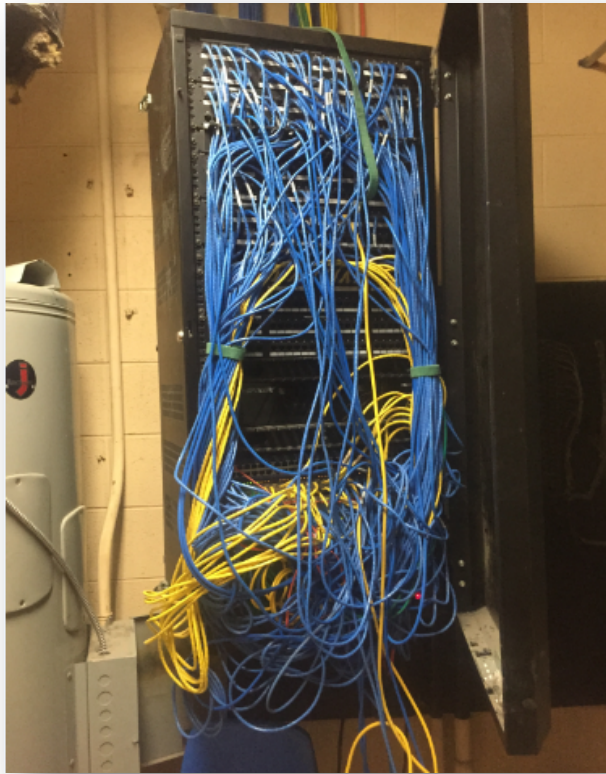
**Before**

**After**



**Before**

**After**





## Appendix H: Certification of Small Business Form

## APPENDIX I

### PARTICIPATION IN STATE PROCUREMENT TRANSACTIONS SMALL BUSINESSES AND BUSINESSES OWNED BY WOMEN AND MINORITIES

The following definitions will be used in completing the information contained in this Appendix.

#### Definitions

- **Small business** is an independently owned and operated business which, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. Nothing in this definition prevents a program, agency, institution or subdivision from complying with the qualification criteria of a specific state program or federal guideline to be in compliance with a federal grant or program.
- **Women-owned business** is a business concern which is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more women, and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority-owned business** is a business concern which is at least 51 percent owned by one or more minorities or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more minorities and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority Individual:** "Minority" means a person who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:
  - "Asian Americans" means all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Marinas, the Philippines, U. S. territory of the Pacific, India, Pakistan, Bangladesh and Sri Lanka and who are regarded as such by the community of which these persons claim to be a part.
  - "African Americans" means all persons having origins in any of the original peoples of Africa and who are regarded as such by the community of which these persons claim to be a part.
  - "Hispanic Americans" means all persons having origins in any of the Spanish speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who are regarded as such by the community of which these persons claim to be a part.
  - "Native Americans" means all persons having origins in any of the original peoples of North America and who are regarded as such by the community of which these persons claim to be a part or who are recognized by a tribal organization.
  - "Eskimos and Aleuts" means all persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia and who are regarded as such in the community of which these persons claim to be a part.

PARTICIPATION BY SMALL BUSINESSES, BUSINESSES OWNED BY WOMEN  
BUSINESSES OWNED BY MINORITIES

This appendix should only be completed by firms that are not Virginia Department of Small Business and Supplier Diversity (DSBSD) certified small businesses.

Offeror certifies that it will involve Small Businesses, Women-Owned Businesses, and/or Minority-Owned Businesses (SWaM) in the performance of this contract either as part of a joint venture, as a partnership, as Subcontractors or as suppliers.

VCU has an overall goal of 42% SWaM participation for all annual purchases and seeks the maximum level of participation possible from all its contractors.

List the names of the SWaM Businesses your firm intends to use and identify the direct role of these firms in the performance of the contract. State whether the firm is a Small Business (SB), Women-Owned (WO), or Minority-Owned (MO).

<u>Name of Businesses:</u>	<u>SB, WO, MO:</u>	<u>Role in contract:</u>
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N/A as ABS is a SWaM Certified Small Business.

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**Commitment for utilization of DSBSD SWaM Businesses:**

\_\_\_\_\_ % of total contract amount that will be performed by DSBSD certified SWaM businesses.

**Identify the individual responsible for submitting SWaM reporting information to VCU:**

Name Printed: \_\_\_\_\_

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

Phone: \_\_\_\_\_

Firm: \_\_\_\_\_

Offeror understands and acknowledge that the percentages stated above represent a contractual commitment by the Offeror. Failure to achieve the percentage commitment will be considered a breach of contract and may result in contract default.

Acknowledged:

By (*Signature*): \_\_\_\_\_

Name Printed: \_\_\_\_\_

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

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

Note: Small, Minority and/or Women-owned business sub-contractors are required to become certified and maintain certification through the Virginia Department of Small Business and Supplier Diversity (DSBSD; <http://www.sbsd.virginia.gov/swamcert.html> ) to fulfill the Offeror's commitment for utilization.

## Appendix I: Invoicing and Payment Form

## APPENDIX II INVOICING AND PAYMENT

### Invoicing:

The Contractor shall submit a fully itemized invoice to Virginia Commonwealth University, Accounts Payable and Support Services, P. O. Box 980327, Richmond, VA 23298-0327, that, at minimum, includes the following information: the Virginia Commonwealth University purchase order number; a description of the goods or services provided; quantities; unit prices; extended prices; and total prices. Payment will be issued in accordance with the payment method selected below and with the Commonwealth of Virginia Prompt Payment Legislation.

Upon request by VCU, the Contractor shall submit invoices electronically using the Ariba Network or other e-commerce channel utilized by VCU; and agrees to comply, within reason, with any future e-commerce initiatives including, but not limited to: procurement, procurement content, sourcing or any other electronic procurement and sourcing solutions.

Questions regarding this method of invoicing should be sent to: [ecommerce@vcu.edu](mailto:ecommerce@vcu.edu).

### Payment:

VCU Procurement Services is automating the payment process to the greatest extent possible. Contractors are encouraged to accept payment electronically through the commercial card program. Please review the payment methods described below and select one for your firm. By selecting the payment method below, Contractor acknowledges that the selected payment method is **not specific to the contract resulting from this solicitation and will apply to all payments made to the Contractor** by Virginia Commonwealth University. For example, if the Contractor has an existing contract(s) and is currently receiving payment by paper check, and the Contractor is now electing to receive payment by the commercial card, **all payments** will be made using the commercial card once the commercial card payment process is implemented for the firm.

### **Payment Methods**

**1. Electronically through a Wells Fargo Visa commercial card:** Payment will be made ten days (10) after receipt of a proper invoice for the amount of payment due, or ten (10) days after receipt of the goods or services, whichever is later.

It is the Contractor's responsibility to contact its banking institutions to determine any credit limit that may restrict the payment of invoices. It is the Contractor's responsibility to have its credit limit raised as necessary to facilitate the timely payment of all invoices. Invoices exceeding the Contractor's credit limit will be returned unpaid.

Failure to accept the commercial card after award of contract will be considered a contract compliance issue and will be addressed accordingly. In addition, invoices will be returned without payment until the Contractor can accept the payment through the commercial card.

Questions regarding this method of payment should be sent to [commcard@vcu.edu](mailto:commcard@vcu.edu).

2. **ACH:** Electronic payment via automated clearing house (ACH) to the vendor provided bank account of record. Payment is processed thirty (30) days after receipt of a proper invoice for the amount of payment due, or thirty (30) days after receipt of the goods or services, whichever is later. Additional information about ACH payments is available at: <http://www.vcu.edu/treasury/VendorACH.htm>.

**Contractor must indicate the method of payment selected:**

\_\_\_\_\_ Commercial Card Payment (Wells Fargo VISA)

X  Automated Clearing House (ACH)

**Invoicing and Payment Method Acknowledgement:**

Signature:	_____
Name Printed:	Noel Barber
Title:	EVP, Engineering Services
Name of Firm:	ABS Technology
Date:	4/28/3017

Please identify the following contact information for the individual who will serve as the appropriate point of contact within your company to be contacted by VCU Accounts Payable to implement the electronic invoicing and payment processes:

Name of the individual:	Lauren Carsey
Title:	Account Receivable Team Lead
Mailing address:	2809 S. Lynnhaven Road, Suite 250
	Virginia Beach, VA 23452
Email address:	lcarsey@abstechnology.com
Phone number:	757-466-0004
Fax number:	757-466-0600



# VCU

VCU Procurement Office  
 912 West Grace Street, 5th Floor  
 Box 980327  
 Richmond, Virginia 23284

**804 828-1077 • Fax: 804 828-9188**  
 TOLL: 1-800-828-1120  
[procurement.vcu.edu](http://procurement.vcu.edu)

an equal opportunity/affirmative action university

July 3, 2017

Hunter Dorroh  
 ABS Technology  
 2809 S Lynnhaven Road, Suite 250  
 Virginia Beach, VA 23452

RE: RFP # 7406884AA Term Agreements for Network Cabling Services

Good Afternoon,

Thank you for your submittal for the above referenced RFP. The committee is in the final stages of evaluation and is requesting that your firm review and respond to the following:

1) If awarded a contract, do you agree that any contract award will be an optional use, requirements based contract and that VCU is in no way required to make purchases from the Contractor?

YES  NO

If NO, please explain.

2) Do you agree that, if awarded a contract, you will actively participate in the SMALL PROJECT MATRIX that may be used for projects less than \$10,000 to supplement the efforts of in-house staff with outside contractors?

YES  NO

If NO, please explain.

3) If awarded a contract, will you furnish VCU with a certificate of insurance naming the Commonwealth of Virginia as an additional insured?

YES  NO

If NO, please explain.

4) Do you agree to the General Terms and Conditions, the Special Terms and Conditions, and the Non-Capital Outlay Terms and Conditions?

YES  NO

If NO, please explain.

5) If awarded a contract, do you agree that your firm will comply with all mandatory (“shall” and “must”) items in the solicitation?

YES  NO

If NO, please explain.

6) Do you agree, if your firm is awarded a contract, that all non-mandatory (“should” and “may”) items will be complied with as mandatory? (Should and May become Shall and Must)

YES  NO

If NO, please explain.

7) If awarded a contract, and, if your firm is not a DSBSD certified Small Business ([www.sbsd.virginia.gov/directory](http://www.sbsd.virginia.gov/directory)), will your firm agree to a 42% commitment of total contract amount to be performed by Department of Small Business and Supplier Diversity (DSBSD) certified SWaM businesses?

YES  NO

If NO, please explain.

N/A as ABS is a SWaM Certified Small Business.







## **VCU Sample Scope RFP for 2 x CAT6 cables**

**Quote # 015760**

Version 1

Prepared For

**Virginia Commonwealth University**

Prepared By

**Vince Palumbo**



Vince Palumbo

(757) 466-0004

vpalumbo@abstechnology.com

Friday, May 26, 2017

Virginia Commonwealth University  
John Seo  
Technology Administration Building  
701 W Broad Street, 4th Fl  
Richmond, VA 23220  
jseo@vcu.edu

Dear John,

ABS Technology is thrilled to partner with you and your team! Thank you for trusting ABS for your technology solutions needs.

Attached is our proposal, as requested. As one of the Mid-Atlantic's premier provider of advanced technology solutions, we are delighted to serve you.

Founded in 1972, ABS specializes in Communications and Collaboration (Unified Communications), Data Center, Network Solutions, Cloud Solutions, Advanced Security and Lifecycle Managed Services.

With over four decades worth of experience, ABS is the perfect choice for dependability, technical aptitude, and service. If at any time, you experience anything short of what we have promised to deliver, I invite you to contact our CEO and owner, Hunter Dorroh, personally at 757.419.2232.

Again, thank you for your continued patronage!

Vince Palumbo  
Account Manager  
Richmond



## A. Preamble

---

This Agreement and Statement of Work (SOW) is made by and between Virginia Commonwealth University (hereinafter referred to as "Customer") with principal place of business at Technology Administration Building 701 W Broad Street, 4th Fl, Richmond, VA 23220 and ABS Technology (hereinafter referred to as "ABS") with principal place of business at 2809 S Lynnhaven Rd #250, Virginia Beach, VA 23452 effective on the date of Customer signature ("Effective Date"). ABS and Customer may also be referred individually as "Party" or collectively as "Parties."

## B. Structured Cabling

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### ■ B.1 Structured Cabling Summary

Install 2 Cat 6 cables from the IDF to the room designated on provided prints.

### ■ B.2 Structured Cabling Assumptions

- Plenum cable required.
- Patch cords provided at each end of all newly installed cable runs.
- Cable runs originate in patch panels.
- Existing pathway to be used for all new cable runs.
- WAO location provided with conduit.
- All walls fishable. Block/Brick walls will require surface mount conduit at an additional cost resulting in a change order.

### ■ B.3 Structured Cabling Tasks

1. Supply, Install, Terminate, Test and Label 2 CAT 6 cables to 1 location.
2. Use the existing J hooks for trunk line support and add any additional J hooks that are required.
3. Re-seal fire stops and sleeves if any are penetrated.
4. All category 6 cabling from patch panel to WAO are provided and installed by ABS with labels.
5. Machine label all installed cables.
6. Test all installed cables with Fluke tester and provide test results.

### ■ B.4 Out of Scope

ABS will not be responsible for performing the following out of scope activities based on this Statement of Work:

1. Any tasks not specifically outlined as requirements in Scope Of Work.
2. ABS will not troubleshoot issues, perform configurations, or change any static IP addressing on equipment not purchased through a project's Bill of Materials, including but not limited to workstations or peripherals.
3. ABS will not be held responsible for changes in timeline when deploying equipment that cannot be connected when called for in the timeline due to environmental site conditions including, but not limited to: missing electrical outlets, missing Cat5/Cat6 cabling drops, construction, and/or no access to the facilities. Please reference.
4. ABS will not be responsible for any configuration of equipment beyond what is documented and required for functionality of this solution, including, but not limited to, any configuration or re-design of existing equipment, unless specifically noted in the design requirements.
5. Troubleshooting of any issue(s) that may arise that are: a) determined not to be caused directly by this solution and, b) not covered in this Statement of Work. This includes issues related to Customer responsibilities and the troubleshooting of any applications that are required for this project that are impacted by out-of-scope.

6. ABS will not implement new features to the existing deployment as a result of manufacturer/feature updates.
7. ABS will not coordinate or troubleshoot carrier or 3rd party vendor work.
8. Any delays caused by 3rd-party applications or 3rd-party vendors may result in additional charges.
9. ABS will not be held accountable for damages, theft, or network downtime related to deployment that follows the design agreed upon by the Customer.
10. Installation of IP cameras.
11. Outdoor or aerial platform work.
12. Identifying locations for new cable runs to be terminated.
13. Addressing or sealing firestops previously existing and not transversed by new cable runs.
14. Electrical work.
15. Assembly or disassembly of modular furniture.
16. Demolition or removal of existing wiring.
17. All required conduit is to be provided.
18. All boring of doors required for lever-set and crash-bar is to be provided by door vendor.
19. Any wall patching, painting and aesthetic repairs.
20. Connect electrified locking hardware power supplies to building fire alarm system, if required by AHJ, fire alarm relay provided by others.
21. Permit, county, and/or state fees are not included in this proposal. Any permits, county, and/or state fees required or requested by client are provided by others or will be proposed at additional cost.

## **B.5 Structured Cabling Deliverables**

ABS will deliver the following items to the customer upon completion of the tasks:

1. As-Built Documentation.( floorplan with data labeling)
2. Cable certification reports with drop IDs that correspond with as built prints.
3. Customer Acceptance Agreement.

## **B.6 Structured Cabling Schedule**

The timeline for the planning and execution of Services is estimated to begin within thirty (30) days from the Effective Date for duration of up to 1 **day**. If Services have not been scheduled as of the Effective Date of this Statement of Work, a timeline mutually agreed to timeline will be agreed to prior to the commencement of Services. The actual start date will depend on the following:

- Availability of a qualified structured cabling technician.
- Shipment/Receipt of equipment.
- Receipt of Customer signed SOW prior to proposed start date.
- Receipt of Purchase Order from Customer.

## **B.7 Optional Recommendations\***

*.\*All Optional Recommendations are for reference purposes only, and are not included in the scope or pricing of this SOW and will require additional time to create alternate proposal.*

## **C. Implementation Services**

---

Network Implementation Services are not included with this project.

## E. Change Control Procedure

---

### Change Control Procedure

The following provides a detailed process to follow if a change to a project specific Scope of Work is required:

1. The vehicle for communicating a change is a Project Change Request and it must describe the change, the rationale, and the effects on the project.
2. The requesting party's designated contact will review the proposed change for submission to the other party.
3. Both Project Managers will review the proposed change and will approve it for further investigation or reject it. If further investigation will result in any additional charges, ABS will explicitly state any such charges.
4. If further investigation is authorized, the Project Managers will sign the Project Change Request, which will constitute approval of any investigation charges. ABS will invoice Customer for these charges.
5. The results of the investigation will determine the effect that the implementation of the Project Change Request will have on price, schedule, and other terms and conditions of the Scope of Work.
6. A written Project Change Request must be signed by both parties to authorize implementation of the investigated changes.

Changes to the project may be made for the following reasons including, but not limited to:

1. Scope of Work
2. Specifications of the deliverables
3. Non-functioning or non-availability of materials beyond either party's control
4. Non-availability of resources beyond either party's control
5. Environmental or architectural impediments not previously identified
6. Rescheduling of ABS work

### Change Review and Approval

The Customer's designated contact and the ABS Project Manager are responsible for the following:

1. Tracking the change requests
2. Evaluating the change(s)
3. Negotiating the final change(s)
4. Obtaining the appropriate approvals for each change
5. Documenting approved change(s) as an addendum to the Statement(s) of Work
6. Implementing approved changes

The Customer's designated contact is responsible for obtaining budgetary approval, as required for the change(s).

Whenever there is a conflict between the Terms and Conditions set forth in a fully executed Project Change Request and those set forth in the original project, or previous fully executed Project Change Request, the Terms and Conditions of the most recent fully executed Project Change Request shall prevail.

Once the Project Plan has been agreed to by all parties, should any of the tasks assigned to responsible persons, who are neither ABS employees nor ABS sub-contracted resources, fail to be completed by their associated completion date, then ABS is deemed not responsible in any way for any resulting delays to other project tasks. ABS understands the Customer's designated contact will require additional internal approval for cost-related issues.



## G. Acceptance Criteria

---

### G.1 Completion Criteria

Project shall be deemed complete upon completion of any one of the following:

1. ABS accomplishes the tasks in Section B.3 (Structured Cabling - Tasks) & Section C.2.1 (Implementation Services Scope of Work - Tasks) of this proposal, and delivers all of the materials listed in Deliverables.
2. The system has been functioning based on the project specific SOW for 15 calendar days.
3. Customer or ABS terminates the project in accordance with the provision of this document's Cancellation & Rescheduling provisions.
4. Customer executes a Customer Acceptance Agreement (CAA). Upon successful testing of production system for five (5) business days, ABS will provide a CAA that indicates the project is successfully completed. Customer has (5) five business days to either sign and accept or deny acceptance of project completion. Customer's failure to respond within the designated (5) five business day period, signifies Customer's approval of the CAA. This authorizes ABS to invoice according to the Payment Terms in the Sales Agreement.

**Note: Issues outside of this Statement of Work are the responsibility of the Customer and shall not impact product delivery or payment.**

### G.2 Acceptance Criteria

All completion and acceptance notifications and acknowledgements regarding Services performed will be made in writing, by email, or by facsimile transmission.

Upon notification that ABS has completed Services, Customer has five (5) working days to schedule appropriate personnel to review the particular services performed and acknowledge the completion of the services as stated in the Scope or by signing the supplied Customer Acceptance Agreement document. Customer's failure to respond within the designated five (5) day period signifies Customer's acceptance and authorizes ABS to send Customer an invoice for the Services and agrees to make payment in full.

In order to refuse acceptance of the services performed, Customer must both indicate non-acceptance on the document and immediately provide written notification to ABS, describing why Customer is rejecting the services performed within the five (5) day response period for the Customer Acceptance. ABS shall make reasonable efforts to correct the problem after the receipt of such, given it is within ABS's scope to do so.



## VCU Sample Scope RFP for 2 x CAT6 cables

**Quote Information:**

Quote #: 015760  
 Version: 1  
 Delivered: 05/26/2017  
 Expires: 06/24/2017

**Prepared for:**

Virginia Commonwealth University  
 John Seo  
 Technology Administration Building  
 701 W Broad Street, 4th Fl  
 Richmond, VA 23220  
 jseo@vcu.edu  
 (804) 827-1478

**Prepared by:**

Vince Palumbo  
 (757) 466-0004  
 Fax (757) 466-0600  
 vpalumbo@abstechnology.com

### Professional Services - Structured Cabling

Ln #	Description
1	Update As Built prints and complete test results summary document(s)
2	Install J-hooks for cable support
3	Install horizontal cabling
4	Drop cables at WAO
5	Terminate WAO
6	Route and dress cables into relay rack
7	Label, Bundle and Prep MDF for termination
8	Terminate patch panels
9	Test and label horizontal cabling
10	Setup, take down and clean
<b>Professional Services - Structured Cabling Subtotal</b>	
<b>\$205.00</b>	

### Quote Summary

Description	Amount
Professional Services - Structured Cabling	\$205.00
Bill of Materials - Copper Parts	\$159.11
Bill of Materials - Supporting Cable Parts	\$24.00
<b>Shipping</b>	<b>TBD</b>
<b>Total</b>	<b>\$388.11</b>

This is not an executable contract and is for reference only.



## Bill of Materials - Copper Parts

Ln #	Part #	Description	Qty	Unit Price	Ext. Price
<b>1</b>		<b>Section Subtotal</b>			<b>\$0.00</b>
2	6P4P24-GN-P-MOH-AP	M57197B AdvanceNet Lime Green Cat6e+ Per Foot	300	\$0.32	\$96.00
3	Z6-20	ZMAX 6 OUTLET CAT 6 UNIVMTG IVORY	2	\$6.49	\$12.98
4	MX6-F20	FLT MAX 6 MOD NO DOOR IVORY	2	\$5.41	\$10.82
5	MX-FP-S-04-20	SG 4 OUT FACEPLATE - IVY	1	\$2.12	\$2.12
6	MX-BL-20	MAX MOD 10PK BLANKS-IVORY	1	\$3.83	\$3.83
7	MC6-01-07	MOD CORD CAT 6 UTP 1FT GREEN JKT	2	\$5.56	\$11.12
8	MC6-10-02	MOD CORD CAT6 UTP 10FT WHITE JKT CLEAR B	2	\$8.12	\$16.24
9	MISCELLANEOUS MATERIALS BUDGET	MISCELLANEOUS MATERIALS TAPE, CAULK, CONSUMABLES	1	\$6.00	\$6.00
<b>Bill of Materials - Copper Parts Subtotal</b>					<b>\$159.11</b>



## Bill of Materials - Supporting Cable Parts

Ln #	Part #	Description	Qty	Unit Price	Ext. Price
1		<b>J HOOKS - BLINE</b>			
2	BCH21C442	1 5/16" J HOOK W/ BEAM CLAMP	4	\$6.00	\$24.00
<b>Bill of Materials - Supporting Cable Parts Subtotal</b>					<b>\$24.00</b>

## Appendix: Project Change Request

---

### ■ Project Change Request

Project:

Date:

### ■ Change Request

The purpose of this change request is to document changes from the original project.

All references in this proposal are based on the existing project and will follow all terms and conditions previously set forth in the existing project.

### ■ Reason for Change

Description here

### ■ Changes to Statement of Work

Key Work Assumptions:

1. ...

ABS Responsibilities:

1. ...

Customer Responsibilities:

1. ...

Out of Scope:

1. ...



## Appendix: Customer Acceptance Agreement

---

Customer:  
Site Address:  
Contact:  
Telephone:  
Project:  
Completion Date:

1. Pursuant to the Statement of Work between ABS Technology (ABS) and the Customer named above, ABS hereby certifies that it has completed delivery, installation and testing of the equipment, software and services as of Completion Date set forth.
2. Customer accepts the Equipment and Services as of the Completion Date.
3. Customer authorizes ABS to send Customer an invoice for Equipment and Services and agrees to make payment in full according to the terms and conditions of the Sales Agreement.
4. If Customer has entered into a lease arrangement for all or a part of the Equipment and Services with a third party leaser, the execution of this agreement by Customer shall constitute irrevocable acceptance as of the Completion Date by the Customer as a lessee under the terms of the lease. Customer authorizes the Leaser to pay ABS for that portion of Equipment and Services that will be subject to the lease.
5. Customer's failure to respond to this document within the designated (5) five business day period, signifies Customer's approval of project completion.
6. Customer certifies that emergency services have been tested and are functional at all locations and/or assumes responsibility for emergency services database if this is a centralized PSTN design. ABS cannot and will not be held liable and/or responsible for any 911/emergency call functionality.

ABS Technology would like to take this opportunity to thank you for your business.

ABS Technology

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

Customer

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



## **VCU - Sample Scope 48 drops RFP**

**Quote # 015765**

Version 1

Prepared For

**Virginia Commonwealth University**

Prepared By

**Vince Palumbo**



Vince Palumbo

(757) 466-0004

vpalumbo@abstechnology.com

Friday, May 26, 2017

Virginia Commonwealth University  
John Seo  
Technology Administration Building  
701 W Broad Street, 4th Fl  
Richmond, VA 23220  
jseo@vcu.edu

Dear John,

ABS Technology is thrilled to partner with you and your team! Thank you for trusting ABS for your technology solutions needs.

Attached is our proposal, as requested. As one of the Mid-Atlantic's premier provider of advanced technology solutions, we are delighted to serve you.

Founded in 1972, ABS specializes in Communications and Collaboration (Unified Communications), Data Center, Network Solutions, Cloud Solutions, Advanced Security and Lifecycle Managed Services.

With over four decades worth of experience, ABS is the perfect choice for dependability, technical aptitude, and service. If at any time, you experience anything short of what we have promised to deliver, I invite you to contact our CEO and owner, Hunter Dorroh, personally at 757.419.2232.

Again, thank you for your continued patronage!

Vince Palumbo  
Account Manager  
Richmond





## A. Preamble

---

This Agreement and Statement of Work (SOW) is made by and between Virginia Commonwealth University (hereinafter referred to as "Customer") with principal place of business at Technology Administration Building 701 W Broad Street, 4th Fl, Richmond, VA 23220 and ABS Technology (hereinafter referred to as "ABS") with principal place of business at 2809 S Lynnhaven Rd #250, Virginia Beach, VA 23452 effective on the date of Customer signature ("Effective Date"). ABS and Customer may also be referred individually as "Party" or collectively as "Parties."

## B. Structured Cabling

---

### ■ B.1 Structured Cabling Summary

Install Cat 6 and fiber cabling to support office renovation.

### ■ B.2 Structured Cabling Assumptions

- Plenum cable required.
- Patch cords provided at each end of all newly installed cable runs.
- Cable runs originate in patch panels.
- Existing pathway to be used for all new cable runs if available.
- All WAO locations provided with conduit.
- Fiber backbone is based on the MDF being directly 3 floors below on the stacked risers between floors.
- Quote includes providing and installing a TMGB in the 3<sup>rd</sup> floor closet for grounding of the rack and basket tray. It will be the responsibility of VCU to have a qualified electrician provide a suitable ground to the TMGB.

### ■ B.3 Structured Cabling Tasks

1. Provide, Install, Terminate, Test and Label 48 Cat 6 cables to 24 locations.
2. Provide, Install, Terminate, Test and Label a 24 strand single mode fiber cable from the MDF to the 3<sup>rd</sup> floor IDF.
3. Assemble mount and install one 7' two post relay rack in 3<sup>rd</sup> floor IDF.
4. Ground rack and basket tray.
5. Install cable Jhooks to support all newly installed cables at regular intervals.
6. Machine label all installed cables.
7. Test all installed cables with Fluke tester and provide test results.
8. Re-seal fire stops and sleeves if any are penetrated.
9. Deploy 3 Access points.(transmitters)

### ■ B.4 Out of Scope

ABS will not be responsible for performing the following out of scope activities based on this Statement of Work:

1. Any tasks not specifically outlined as requirements in Scope Of Work.
2. ABS will not troubleshoot issues, perform configurations, or change any static IP addressing on equipment not purchased through a project's Bill of Materials, including but not limited to workstations or peripherals.
3. ABS will not be held responsible for changes in timeline when deploying equipment that cannot be connected when called for in the timeline due to environmental site conditions including, but not limited to: missing electrical outlets, missing Cat5/Cat6 cabling drops, construction, and/or no access to the facilities. Please reference.
4. ABS will not be responsible for any configuration of equipment beyond what is documented and required for functionality of this solution, including, but not limited to, any configuration or re-design of existing equipment, unless specifically noted in the design requirements.
5. Troubleshooting of any issue(s) that may arise that are: a) determined not to be caused directly by this solution and, b) not covered in this Statement of Work. This includes issues related to Customer

responsibilities and the troubleshooting of any applications that are required for this project that are impacted by out-of-scope.

6. ABS will not implement new features to the existing deployment as a result of manufacturer/feature updates.
7. ABS will not coordinate or troubleshoot carrier or 3rd party vendor work.
8. Any delays caused by 3rd-party applications or 3rd-party vendors may result in additional charges.
9. ABS will not be held accountable for damages, theft, or network downtime related to deployment that follows the design agreed upon by the Customer.
10. Installation of IP cameras.
11. Outdoor or aerial platform work.
12. Identifying locations for new cable runs to be terminated.
13. Addressing or sealing firestops previously existing and not transversed by new cable runs.
14. Electrical work.
15. Assembly or disassembly of modular furniture.
16. Demolition or removal of existing wiring.
17. All required conduit is to be provided by GC.
18. All boring of doors required for lever-set and crash-bar is to be provided by door vendor.
19. Any wall patching, painting and aesthetic repairs.
20. Connect electrified locking hardware power supplies to building fire alarm system, if required by AHJ, fire alarm relay provided by others.
21. Permit, county, and/or state fees are not included in this proposal. Any permits, county, and/or state fees required or requested by client are provided by others or will be proposed at additional cost.

## **B.5 Structured Cabling Deliverables**

ABS will deliver the following items to the customer upon completion of the tasks:

1. As-Built Documentation.( floorplan with data labeling)
2. Cable certification reports with drop IDs that correspond with as built.
3. Customer Acceptance Agreement.

## **B.6 Structured Cabling Schedule**

The timeline for the planning and execution of Services is estimated to begin within thirty (30) days from the Effective Date for duration of up to 5 days. If Services have not been scheduled as of the Effective Date of this Statement of Work, a timeline mutually agreed to timeline will be agreed to prior to the commencement of Services. The actual start date will depend on the following:

- Availability of a qualified structured cabling technician.
- Shipment/Receipt of equipment.
- Receipt of Customer signed SOW prior to proposed start date.
- Receipt of Purchase Order from Customer.

## **B.7 Optional Recommendations\***

None



*. \*All Optional Recommendations are for reference purposes only, and are not included in the scope or pricing of this SOW and will require additional time to create alternate proposal.*

## D. Project Management & Place of Performance

### D.1 ABS Project Management

The objective of Project Management is to establish and maintain a framework for the execution of the project's communication, reporting, procedural and contractual activities.

The ABS Project Manager will perform the following tasks:

1. Prepare a timeline/plan that identifies the major milestones for the effort of the ABS Professional Services team and the customer required personnel (if required) along with estimated dates on which they are to occur.
2. Participate in a project Kick Off meeting for Customer and ABS personnel. The project Kick Off meeting will accomplish the following:
  1. Review Statements of Work, Agreements and the responsibilities of Customer with Customer's designated Point of Contact (POC).
  2. Communicate the project's objectives to the project team
  3. Communicate the project's schedule of events along with time frames
  4. Establish roles and responsibilities
  5. Communicate the change management process
  6. Establish a framework for team communication
3. Participate in a project Design meeting for Customer and ABS personnel
4. Maintain project communication through the Customer Project Manager
5. Assist the Customer's designated contact in administering the Project Change Request
6. Participate in scheduled status, and other project related meetings, with Customer's designated POC

### D.2 Customer Point of Contact

Prior to the start of a Scope of Work, the Customer will designate a primary point of contact to serve as the focal point for all agreement matters and to whom all communications will be directed. Prior to the start of a project, Customer will advise ABS of the appointment of the Customer's primary point of contact.

The Customer's primary point of contact will be authorized as the responsible agent to:

1. Designate, in writing, other employees/departments from the Customer to authorize or approve any testing/troubleshooting/project change documents, as required.
2. Ensure the availability and continuity of adequate personnel from all functional areas as determined by the project plan.
3. Respond to project related requests within 48 hours. Delays in work caused by lack of response may result in Change Management and additional charges.
4. Notify the ABS Project Manager of any installation scheduling changes within 72 hours prior to the published installation event as indicated in the project plan.
5. Notify the ABS Project Manager of any schedule changes within 72 hours prior to the scheduled activity. Schedule changes and/or cancellations made after this 72-hour window shall be subject to ABS's cancellation/re-visit charge.
6. Administer the Project Change Request outlined in section E. Change Control Procedure, with the ABS Project Manager.
7. Manage all formal communications with the End-User(s).
8. Act as the point of contact to provide any feedback on project status, additional feature requests/changes, concerns, etc. Any concerns/request from other sources will be redirected by ABS staff to the Customer's primary point of contact for formal presentation (in writing) to ABS.
9. Provide detailed process for Change Control Procedure and details of any other processes in place (including maintenance windows and holidays) that may impact the implementation/schedule.
10. Oversee the completion of the portions of the design workbook that may require a large amount of information gathering and documenting from the customer.

11. Where applicable, provide facilities, coordinate class times and enrolment for training performed by ABS.

### **D.3 ABS Contact Information**

PMO Manager : Cheng Tu  
ctu@abstechnology.com  
W: 540.597.1806  
Project Manager : TBD

### **D.4 Place of Performance**

Unless otherwise specified elsewhere in this SOW, all on-site Services will be performed at Customer's facilities. ABS will perform all reasonable work at ABS facilities for staging and pre-configuration of the equipment as applicable. Tasks under this SOW will be completed during normal business hours of 8:00 a.m. to 5:00 p.m. Monday through Friday and excluding Federal and ABS holidays, unless otherwise agreed upon by both parties.

## E. Change Control Procedure

---

### Change Control Procedure

The following provides a detailed process to follow if a change to a project specific Scope of Work is required:

1. The vehicle for communicating a change is a Project Change Request and it must describe the change, the rationale, and the effects on the project.
2. The requesting party's designated contact will review the proposed change for submission to the other party.
3. Both Project Managers will review the proposed change and will approve it for further investigation or reject it. If further investigation will result in any additional charges, ABS will explicitly state any such charges.
4. If further investigation is authorized, the Project Managers will sign the Project Change Request, which will constitute approval of any investigation charges. ABS will invoice Customer for these charges.
5. The results of the investigation will determine the effect that the implementation of the Project Change Request will have on price, schedule, and other terms and conditions of the Scope of Work.
6. A written Project Change Request must be signed by both parties to authorize implementation of the investigated changes.

Changes to the project may be made for the following reasons including, but not limited to:

1. Scope of Work
2. Specifications of the deliverables
3. Non-functioning or non-availability of materials beyond either party's control
4. Non-availability of resources beyond either party's control
5. Environmental or architectural impediments not previously identified
6. Rescheduling of ABS work

### Change Review and Approval

The Customer's designated contact and the ABS Project Manager are responsible for the following:

1. Tracking the change requests
2. Evaluating the change(s)
3. Negotiating the final change(s)
4. Obtaining the appropriate approvals for each change
5. Documenting approved change(s) as an addendum to the Statement(s) of Work
6. Implementing approved changes

The Customer's designated contact is responsible for obtaining budgetary approval, as required for the change(s).

Whenever there is a conflict between the Terms and Conditions set forth in a fully executed Project Change Request and those set forth in the original project, or previous fully executed Project Change Request, the Terms and Conditions of the most recent fully executed Project Change Request shall prevail.

Once the Project Plan has been agreed to by all parties, should any of the tasks assigned to responsible persons, who are neither ABS employees nor ABS sub-contracted resources, fail to be completed by their associated completion date, then ABS is deemed not responsible in any way for any resulting delays to other project tasks. ABS understands the Customer's designated contact will require additional internal approval for cost-related issues.

## G. Acceptance Criteria

---

### G.1 Completion Criteria

Project shall be deemed complete upon completion of any one of the following:

1. ABS accomplishes the tasks in Section B.3 (Structured Cabling - Tasks) & Section C.2.1 (Implementation Services Scope of Work - Tasks) of this proposal, and delivers all of the materials listed in Deliverables.
2. The system has been functioning based on the project specific SOW for 15 calendar days.
3. Customer or ABS terminates the project in accordance with the provision of this document's Cancellation & Rescheduling provisions.
4. Customer executes a Customer Acceptance Agreement (CAA). Upon successful testing of production system for five (5) business days, ABS will provide a CAA that indicates the project is successfully completed. Customer has (5) five business days to either sign and accept or deny acceptance of project completion. Customer's failure to respond within the designated (5) five business day period, signifies Customer's approval of the CAA. This authorizes ABS to invoice according to the Payment Terms in the Sales Agreement.

**Note: Issues outside of this Statement of Work are the responsibility of the Customer and shall not impact product delivery or payment.**

### G.2 Acceptance Criteria

All completion and acceptance notifications and acknowledgements regarding Services performed will be made in writing, by email, or by facsimile transmission.

Upon notification that ABS has completed Services, Customer has five (5) working days to schedule appropriate personnel to review the particular services performed and acknowledge the completion of the services as stated in the Scope or by signing the supplied Customer Acceptance Agreement document. Customer's failure to respond within the designated five (5) day period signifies Customer's acceptance and authorizes ABS to send Customer an invoice for the Services and agrees to make payment in full.

In order to refuse acceptance of the services performed, Customer must both indicate non-acceptance on the document and immediately provide written notification to ABS, describing why Customer is rejecting the services performed within the five (5) day response period for the Customer Acceptance. ABS shall make reasonable efforts to correct the problem after the receipt of such, given it is within ABS's scope to do so.





## VCU - Sample Scope 48 drops RFP

**Quote Information:**

Quote #: 015765  
 Version: 1  
 Delivered: 05/26/2017  
 Expires: 06/24/2017

**Prepared for:**

Virginia Commonwealth University  
 John Seo  
 Technology Administration Building  
 701 W Broad Street, 4th Fl  
 Richmond, VA 23220  
 jseo@vcu.edu  
 (804) 827-1478

**Prepared by:**

Vince Palumbo  
 (757) 466-0004  
 Fax (757) 466-0600  
 vpalumbo@abstechnology.com

### Professional Services - Structured Cabling

Ln #	Description
1	Scope and Kick-off call
2	Deployment transition to lead engineer
3	Verify all equipment is onsite
4	Update As Built prints and complete test results summary document(s)
5	Install J-hooks for cable support
6	Install relay rack(s) and associated equipment
7	Install ladder rack and supporting hardware
8	Install horizontal cabling
9	Drop cables at WAO
10	Terminate WAO
11	Route and dress cables from WAO to MDF
12	Route and dress cables into relay rack
13	Label, Bundle and Prep MDF for termination
14	Terminate patch panels
15	Test and label horizontal cabling
16	Install fiber cabling
17	Route and dress fiber into relay rack
18	Dress Fiber Pathways
19	Prep/Clean Fiber
20	Install Fan-Out kit
21	Terminate/Splice fiber
22	Install LIU/Modules
23	Route finished fiber into LIU



### Professional Services - Structured Cabling

Ln #	Description	
24	Test/Label fiber	
25	Install TGB and ground wire	
26	Install AP	
27	Setup, take down and clean	
28	Project Management	
<b>Professional Services - Structured Cabling Subtotal</b>		<b>\$5,645.00</b>

### Quote Summary

Description	Amount
Professional Services - Structured Cabling	\$5,645.00
Bill of Materials - Copper Parts	\$4,861.77
Bill of Materials - Supporting Cable Parts	\$987.08
<b>Shipping</b>	<b>TBD</b>
<b>Total</b>	<b>\$11,493.85</b>

This is not an executable contract and is for reference only.



## Bill of Materials - Copper Parts

Ln #	Part #	Description	Qty	Unit Price	Ext. Price
1	6P4P24-GN-P-MOH-AP	M57197B	6	\$318.00	\$1,908.00
2	RS-07	7FT X19IN RACK SYSTEM	1	\$398.80	\$398.80
3	FT2X12X10BLE	FLEXTRAY 2" DEEP 12" WIDE 118" LONG FLEXTRAY STRAIGHT SECTION BLACK	1	\$144.00	\$144.00
4	FTA9WTK	FLEXTRAY WALL TERMINATION KIT	2	\$18.00	\$36.00
5	MX-PNL-48	48 PORT PANEL	2	\$38.51	\$77.02
6	Z6-20	ZMAX 6 OUTLET CAT 6 UNIVMTG IVORY	54	\$6.49	\$350.46
7	MX6-F20	FLT MAX 6 MOD NO DOOR IVORY	42	\$5.41	\$227.22
8	MX-FP-S-04-20	SG 4 OUT FACEPLATE - IVY	21	\$2.12	\$44.52
9	MX-BL-20	MAX MOD 10PK BLANKS-IVORY	3	\$3.83	\$11.49
10	RTC36B	CABINET RACK MNT 36 PORT BLACK	1	\$165.58	\$165.58
11	6112SMDLC	ADPTR PLT ASSY DLCX6 SM 12PORT	4	\$98.51	\$394.04
12	P-8-LC-UPC-12-1M	OCC - 12 STRAND SM LC PIGTAIL 3'	4	\$63.00	\$252.00
13	S-RN-24-DN-YL-SIC-CUT REEL	024E81-33131-24 Item was \$1,227.95 per 1000 feet	200	\$0.98	\$196.00
14	MC6-01-07	MOD CORD CAT 6 UTP 1FT GREEN JKT	48	\$5.56	\$266.88
15	MC6-10-02	MOD CORD CAT6 UTP 10FT WHITE JKT CLEAR B	48	\$8.12	\$389.76
<b>Bill of Materials - Copper Parts Subtotal</b>					<b>\$4,861.77</b>



## Bill of Materials - Supporting Cable Parts

Ln #	Part #	Description	Qty	Unit Price	Ext. Price
<b>1</b>		<b>GROUNDING/FIRE STOPPING</b>			
2	2LCCX6-14A-L	PANDUIT - GROUNDING LUG - 6AWG - 2 HOLE	4	\$4.50	\$18.00
3	5K-0601-5	GROUND WIRE - 6AWG STRANDED - GREEN	50	\$0.78	\$39.00
4	GB4B0612TPI-1	PANDUIT - MAIN GROUNDING BUSBAR - 4" X 12"	1	\$117.00	\$117.00
5	GACBJ68U	PANDUIT - GROUNDING STRAP	1	\$27.48	\$27.48
<b>6</b>		<b>Section Subtotal</b>			<b>\$201.48</b>
<b>7</b>		<b>J HOOKS - PANDUIT STRONGHOLD</b>			
8	JP75DW-L20	PANDUIT - STRONGHOLD - 3/4" J-HOOK W/ BATWING	100	\$2.34	\$234.00
9	JP2DW-L20	PANDUIT - STRONGHOLD - 2" J-HOOK W/ BATWING	50	\$3.42	\$171.00
<b>10</b>		<b>Section Subtotal</b>			<b>\$405.00</b>
<b>11</b>		<b>HILTI - GRID HANGER/SHOT COMBO</b>			
12	3497093C	HILTI - COMBO KIT - 6' GRID WIRE/ SCREWS/SHOT(PER 100)	2	\$71.20	\$142.40
<b>13</b>		<b>Section Subtotal</b>			<b>\$142.40</b>
<b>14</b>		<b>LABELS/TYEWRAPS</b>			
15	18443	DYMO - LABEL 3/8" - WHITE VINYL	1	\$15.00	\$15.00
16	18445	DYMO - LABEL 3/4" - WHITE VINYL	1	\$16.20	\$16.20
17	TYNGT	VELCRO - PLENUM - 3/4" X 5 YARD ROLL	15	\$13.80	\$207.00
<b>18</b>		<b>Section Subtotal</b>			<b>\$238.20</b>
<b>Bill of Materials - Supporting Cable Parts Subtotal</b>					<b>\$987.08</b>

## Appendix: Project Change Request

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### ■ **Project Change Request**

Project:

Date:

### ■ **Change Request**

The purpose of this change request is to document changes from the original project.

All references in this proposal are based on the existing project and will follow all terms and conditions previously set forth in the existing project.

### ■ **Reason for Change**

Description here

### ■ **Changes to Statement of Work**

Key Work Assumptions:

1. ...

ABS Responsibilities:

1. ...

Customer Responsibilities:

1. ...

Out of Scope:

1. ...



## Appendix: Customer Acceptance Agreement

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Customer:  
Site Address:  
Contact:  
Telephone:  
Project:  
Completion Date:

1. Pursuant to the Statement of Work between ABS Technology (ABS) and the Customer named above, ABS hereby certifies that it has completed delivery, installation and testing of the equipment, software and services as of Completion Date set forth.
2. Customer accepts the Equipment and Services as of the Completion Date.
3. Customer authorizes ABS to send Customer an invoice for Equipment and Services and agrees to make payment in full according to the terms and conditions of the Sales Agreement.
4. If Customer has entered into a lease arrangement for all or a part of the Equipment and Services with a third party leaser, the execution of this agreement by Customer shall constitute irrevocable acceptance as of the Completion Date by the Customer as a lessee under the terms of the lease. Customer authorizes the Leaser to pay ABS for that portion of Equipment and Services that will be subject to the lease.
5. Customer's failure to respond to this document within the designated (5) five business day period, signifies Customer's approval of project completion.
6. Customer certifies that emergency services have been tested and are functional at all locations and/or assumes responsibility for emergency services database if this is a centralized PSTN design. ABS cannot and will not be held liable and/or responsible for any 911/emergency call functionality.

ABS Technology would like to take this opportunity to thank you for your business.

ABS Technology

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

Customer

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