



# VCU Procurement Services

Date: June 01, 2022

Southern Maryland Cable  
Mark Stahl  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779  
[mstahl@smcinc.bis](mailto:mstahl@smcinc.bis)

RE: Contract #: 7406884AA  
Extension of Contract

**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 Mark,

The Virginia Commonwealth University (VCU) contract for Network Cabling Services will expire on July 31, 2022. It is VCU's intent that this contract remain in an extended period until December 30, 2022 while the current RFP solicitation is in progress.

Your signature constitutes your firm's acceptance of this contract extension. Please return this document by July 1, 2022. Please e-mail the completed form to [lofgreenj@vcu.edu](mailto:lofgreenj@vcu.edu). If you have any questions, please contact me at 804-628-2897.

Products and services shall be provided in accordance with the contract during the contract extension period.

Sincerely,

Jason Lofgreen, CUPO  
Senior Buyer

Contract #: : 7406884AA

**RESPONSE:**

Southern Maryland Cable

Name of Firm

*Wendy Garner*

Signature

Wendy Garner

Name Printed

Vice President

Title

June 2, 2022

Date



# VCU Procurement Services

July 6, 2021

Southern Maryland Cable  
Mark Stahl  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779  
mstahl@smcinc.bis

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

To Whom It May Concern:

Southern Maryland Cable's contract with Virginia Commonwealth University (VCU) for Network Cabling Services expires on 7/31/2021. 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: 8/1/2021 through 7/31/2022.

- 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 by July 20, 2021. Your response may be emailed to [lofgreenj@vcu.edu](mailto:lofgreenj@vcu.edu)

Sincerely,

*Jason Lofgreen*  
Jason Lofgreen  
Senior Buyer, CUPO

Contract #: 7406884AA

**RESPONSE:**

Southern Maryland Cable

Name of Firm

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Signature

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Wendy Garner

Name Printed

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Vice President

Title

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July 6, 2021

Date

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# VCU Procurement Services

July 6, 2020

Southern Maryland Cable  
Mark Stahl  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779  
mstahl@smcinc.bis

RE: Contract #: 7406884AA  
Renewal No.: 3 of 4

To Whom It May Concern:

Southern Maryland Cable's contract with Virginia Commonwealth University (VCU) for Network Cabling Services expires on 7/31/2020. 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: 8/1/2020 through 7/31/2021.

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, CUPO

Contract #: 7406884AA

**RESPONSE:**

Southern Maryland Cable

Name of Firm

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Wendy A

Garner:A01096A000001316727

AFEE00000F1A

Digitally signed by Wendy A

Garner:A01096A000001316727AFEE000

00F1A

Date: 2020.07.06 13:26:29 -04'00'

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Signature

Wendy Garner

Name Printed

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Vice President

Title

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July 6, 2020

Date

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# VCU Procurement Services

July 18, 2019

Southern Maryland Cable  
Mark Stahl  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779  
mstahl@smcinc.bis

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

To Whom It May Concern:

Southern Maryland Cable'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:**

Southern Maryland Cable  
Name of Firm

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Signature

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Wendy Garner  
Name Printed

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Vice President of SCS Division  
Title

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July 18, 2019  
Date

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# VCU Procurement Services

Date June 30, 2018

Mark Stahl  
Southern Maryland Cable  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779

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.Stahl:

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

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**RESPONSE:**

Southern Maryland Cable, Inc.

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Name of Firm

Wendy A  
Garner:A01096A0000013  
16727AFEE00000F1A

Digitally signed by Wendy A  
Garner:A01096A000001316727A  
FEE00000F1A  
Date: 2018.07.03 07:39:58 -04'00'

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Signature

Wendy Garner

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Name Printed

Vice President of SCS Division

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Title

July 3, 2018

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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 50/125 $\mu$ 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-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).
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- 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 “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 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 Contract, 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

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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

**Virginia Commonwealth University**

**Richmond, VA**

**April 26, 2017**

**RFP # 7406884AA**

**Prepared by**

**Mark Stahl TPM  
Estimator / Project Manager  
(410)867-7577**

**[mstahl@smcinc.biz](mailto:mstahl@smcinc.biz)**



**Southern Maryland Cable, Inc.**

5932 Old Solomon's Island Road,  
Tracey's Landing, MD 20779

Phone – 410.867.7577 Fax – 410.867.4340



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 arantes@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.

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., 5TH FLOOR, RICHMOND, VA 23298-0327.

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.

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

NAME AND ADDRESS OF COMPANY:

Southern Maryland Cable, Inc.
5932 Old Solomon's Island Road
Tracy's Landing, MD Zip Code 20779
E-Mail Address: dmadden@smcinc.biz
Telephone: (410) 867-7577
Toll free, if available
DUNS NO.: #00-511-7064

Date: April 24, 2017
By (Signature In Ink): Dennis Madden
Name Typed: Dennis Madden
Title: President
Fax Number: (410) 867-4340
Toll free, if available
FEI/FIN NO.: # 20-0086897

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

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

THIS SOLICITATION CONTAINS 43 PAGES.

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. 2705116083

Class A Contractor:  Yes  No

Expiration Date: 08-31-2017

Specialty: Electrical Communications

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/Cabbling  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:

35 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.



- 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:	<u>Southern Maryland Cable, Inc.</u>	<u>04-28-2017</u>	<u>11:00 am</u>
	Name of Offeror	Due Date	Time
	<u>5932 Old Solomon's Island Rd.</u>	<u>7406884AA</u>	
	Street or Box Number	RFP No.	
	<u>Tracy's Landing, MD 20779</u>	<u>Term Agreements for Network Cabling Services</u>	
	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,

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. 2705116083 Specialty: ELE  
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.

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>
Automated Cable Services, Inc.	MO/SB	Subcontractor for Cable Install

SWaM Certification Number: 713331

Commonwealth of Virginia Business License Number: 2705045604


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

42 % 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: Dennis Madden  
Email: dmadden@smcinc.biz  
Phone: 410-867-7577  
Firm: Southern Maryland Cable, Inc.

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: Dennis Madden  
Title: President  
Email: dmadden@smcinc.biz

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.


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: Kimberly Wilson  
Title: Controller  
Name of Firm: Southern Maryland Cable, Inc.  
Date: April 24, 2017

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: Kimberly Wilson  
Title: Controller  
Mailing address: 5932 Old Solomon's Island Road  
P.O. Box 30 Tracy's Landing, MD 20779  
Email address: kwilson@smcinc.biz  
Phone number: 410-867-7577 x 134  
Fax number: 410-867-7260

**Virginia Commonwealth University**

**Richmond, VA**

**April 26, 2017**

**RFP # 7406884AA**

**Prepared by**

**Mark Stahl TPM  
Estimator / Project Manager  
(410)867-7577**

**[mstahl@smcinc.biz](mailto:mstahl@smcinc.biz)**



**Southern Maryland Cable, Inc.**

5932 Old Solomon's Island Road,  
Tracey's Landing, MD 20779

Phone – 410.867.7577 Fax – 410.867.4340



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# 1 EXECUTIVE SUMMARY

## 1.1 Corporate Overview

Southern Maryland Cable, Inc. (SMC) specializes in Technology Infrastructure, Power Distribution & Information Transport. SMC provides telecommunications infrastructure solutions including project management, construction and maintenance to federal and local governments, telecommunications and broadband service providers, electric utilities and commercial enterprises.

SMC comprehensive solutions include data, voice, video, and security cabling systems for both the Inside Plant (ISP) and Outside Plant (OSP), with full life-cycle support services ranging from analysis, design and engineering to testing, acceptance, facility management and maintenance.

SMC is proud to build long term relationships with organizations to provide solutions to you, your customers and end-users. We are a cleared defense company and bring over 30 years' experience in working with Federal (DOD, Civilian, & Secure) and State Government Agencies, System Integrators, Network Carriers, Commercial & Financial Organizations, Developers, General and Mechanical SMCs. We are headquartered in the National Capital Region and provide services throughout the United States.

SMC is a wholly owned subsidiary of Argan, Inc. (NYSE Symbol: AGX). As a holding company, Argan conducts operations through its wholly owned subsidiaries, Gemma Power Systems (GPS), Atlantic Projects Company Limited (APC), The Roberts Company (TRC) and Southern Maryland Cable (SMC).

Argan Revenues:

Year ended January 31, 2017	\$675,047,000
Year ended January 31, 2016	\$413,275,000

GPS provides a full range of development, consulting, engineering, procurement, construction, commissioning, operations and maintenance services to the power generation and renewable energy markets for a variety of customers including public utilities, independent power project owners, municipalities, public institutions and private industry.

Headquartered in Dublin, Ireland, APC provides turbine, boiler and large rotating equipment installation, commissioning and outage services to original equipment manufacturers, EPC's and plant owners worldwide. APC maintains offices in Hong Kong, Singapore and New York.

Headquartered near Greenville, North Carolina, TRC is principally an industrial fabricator and constructor serving both light and heavy industrial organizations primarily in the southern United States. Its fabrication services offer unlimited steel plate fabrication specializing in custom complex ASME code pressure vessels and heat exchangers. In addition, TRC provides a full service project solutions group for grass roots projects, as well as a plant services group to handle maintenance turnarounds, shutdowns and emergency mobilizations.

Southern Maryland Cable, Inc. is a highly regarded and valued client of Aon Risk Solutions and Travelers Casualty and Surety Company of America (Travelers). With respect to SMC's bonding capacity, Travelers will consider providing bonding support for individual projects with contract values approaching \$5,000,000 and backlogs approaching \$25,000,000.



## **1.2 Capabilities Overview**

SMC delivers turnkey telecommunications infrastructure solutions with a full team of certified, experienced technicians using innovative technology products and top of the line equipment to ensure your job is completed on time and on budget, minimizing hassles, disruptions and satisfying you and your customers.

SMC comprehensive solutions include data, electric, voice, video, and security cabling systems for both the Inside Plant (ISP), Outside Plant (OSP), Facilities, Pier/Waterfront, and WAN support with full life-cycle support services ranging from analysis, design and engineering to testing, acceptance, and AutoCAD.

## **1.3 Past Performance**

### **TE SubCom – Baltimore, Project Dates: MD 2006 - Present**

- Install 2" PVC conduit along the dock.
- Install Overhead Paging Speakers.
- Install Dockside Multimode fiber and CAT5e copper connections.
- Install CAT6 cabling for 1<sup>st</sup> and 2<sup>nd</sup> floors.
- Fiber Backbone from 2<sup>nd</sup> floor DATA center to TR's on 1<sup>st</sup> and 2<sup>nd</sup> floors.

### **3eTI Ultra - NSF ARLINGTON VPMS Perimeter Fiber Project Dates: 2014**

- One (1) 12 strand single-mode fiber cable (approximate length 700 feet)
- One (1) 24 strand single-mode fiber cable (approximate length 3300 feet)
- All SC-to-SC single mode duplex patch cords for connection between 12 port CCH in-panels and 12 port CCH out-panels.

### **3eTI Ultra - Dahlgren NDW NSASP, VA Fiber install B Gate South Project Dates: 2014**

- Furnished, installed, terminated, and tested 7766 feet of 24 Strand SM fiber

### **MilCorp – NAS PAX RVR, MD – Atlantic Test Range Project Dates: 2016 - Present**

- Furnished, installed, terminated, and tested 21,000 feet of 288 Strand SM fiber with 864 splice terminations.

### **Inter County Broadband Network (ICBN) Howard County Government, Project Dates: 2011 - Present**

- SMC Inc. is a prime contractor on the ICBN project with Howard County, MD. To date SMC has constructed over 91 miles of plant for the project. This includes construction of conduit, placement of fiber, splicing and termination of fiber and testing of fiber.

**United States Postal Service Project Dates: 2007 - Present**

- SMC, Inc. provides USPS with MAC (Moves, Adds and Changes) of their communications infrastructure at various locations throughout the National Capitol Region. These services include emergency response, maintenance, testing and new construction

**Southern Maryland Electric Cooperative Project Dates: 1997 – Present**

- SMC, Inc. performs directional drilling/boring, installation of conduit & duct systems, trenching, plowing and backbone excavation for underground electric lines, transformer installation and maintenance, installation of fiber, copper, and coax cables, cable splicing, terminations and testing, cabling for security, alarms, video and CCTV, and removal/replacement of underground plant

## 2 STANDARDS AND CODES

SMC will design, manufacture, test, and install telecommunications cabling networks per manufacturer's requirements and in accordance with NEC, NFPA-70 (*fire safety*), state codes, local codes, requirements of authorities having jurisdiction, and particularly the following standards:

### **ASTM International (ASTM)**

- ▶ ASTM B 1 – (2001; R 2007) Standard Specification for Hard-Drawn Copper Wire
- ▶ ASTM B 8 – (2004) Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
- ▶ ASTM D 709 – (2001; R 2007) Laminated Thermosetting Materials

### **Institute of Electrical and Electronics Engineers (IEEE)**

- ▶ IEEE C2 – (2007; Errata 2007; INT 2008) National Electrical Safety Code
- ▶ IEEE Std 100 – (2000) The Authoritative Dictionary of IEEE Standards Terms

### **National Electrical Manufacturers Association (NEMA)**

- ▶ NEMA 250 – (2008) Enclosures for Electrical Equipment(1000 Volts Maximum)
- ▶ NEMA C80.3 – (2005) Standard for Electrical Metallic Tubing (EMT)
- ▶ NEMA ICS 1 – (2000; R 2005; R 2008) Standard for Industrial Control and Systems General Requirements
- ▶ NEMA WD 1 – (1999; R 2005) Standard for General Requirements for Wiring Devices
- ▶ NEMA WD 6 – (2002; R 2008) Standard for Wiring Devices Dimensional Requirements
- ▶ NEMA Z535.4 – (2007; Errata 2007) Product Safety Signs and Labels

### **National Fire Protection Association (NFPA)**

- ▶ NFPA 70 – (2007; AMD 1 2008) National Electrical Code - 2008 Edition SECTION 26 20 00 Page 1
- ▶ NFPA 70E (2008) – Electrical Safety in the Workplace

### **Underwriters Laboratories (UL)**

- ▶ UL 1 – (2005; Rev thru Jul 2007) Standard for Flexible Metal Conduit
- ▶ UL 1660 – (2004; Rev thru Jan 2005) Liquid-Tight Flexible Nonmetallic Conduit
- ▶ UL 360 (2009) – Liquid-Tight Flexible Steel Conduit
- ▶ UL 486A-486B – (2003; Rev thru Apr 2009) Standard for Wire Connectors
- ▶ UL 486C – (2004; Rev thru Apr 2009) Standard for Splicing Wire Connectors
- ▶ UL 498 – (2001; Rev thru Oct 2008) Attachment Plugs and Receptacles
- ▶ UL 510 – (2005; Rev thru Aug 2005) Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape
- ▶ UL 514A – (2004; Rev thru Aug 2007) Standard for Metallic Outlet Boxes
- ▶ UL 514B – (2004; Rev thru Aug 2007) Standard for Conduit, Tubing and Cable Fittings

- ▶ UL 514C – (1996; Rev thru Dec 2008) Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
- ▶ UL 797 (2007) – Standard for Electrical Metallic Tubing -- Steel
- ▶ UL 83 (20086) – Standard for Thermoplastic-Insulated Wires and Cables
- ▶ UL 94 – (1996; Rev thru Jun 2009) Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

#### **ANSI/TIA/EIA Standards**

- ▶ ANSI/TIA-568-C.0, "Generic Telecommunications Cabling for Customer Premises", published 2009
- ▶ ANSI/TIA-568-C.1, "Commercial Building Telecommunications Cabling Standard", published 2009
- ▶ ANSI/TIA-568-C.2, "Balanced Twisted-Pair Telecommunication Cabling and Components Standard", published 2009
- ▶ ANSI/TIA-568-C.3, "Optical Fiber Cabling Components Standard", published 2008, errata issued in October, 2008
- ▶ ANSI/TIA/EIA-606-A – The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
- ▶ TIA-J-STD-607-A – Commercial Building Grounding and Bonding Requirements for Telecommunications.
- ▶ ANSI/TIA-942 – Telecommunications Standard for Data Centers

Federal, state, and local codes, rules, regulations, and ordinances governing the work, are as fully part of the specifications as if herein repeated or hereto attached. In the event that SMC should note items in the drawings or the specifications, construction of which would be code violations, we will promptly call them to the attention of the owner's representative Project Manager or the owner's representative in writing. Where the requirements of other sections of the specifications are more stringent than applicable codes, rules, regulations, and ordinances, the specifications will apply.

## **3 TESTING PROCEDURES**

### **3.1 Testing Standards**

Prior to submitting an application for final acceptance, all tests stated within this document will be satisfactorily completed. The communications work includes miscellaneous tasks (i.e., removal of panel trims, junction and pull box covers) deemed necessary by VCU to demonstrate compliance with the requirements of the Drawings, telecommunications specifications, and cable and equipment manufacturer's recommended installation procedures.

Any defects or deficiencies (i.e. failure to meet VCU or manufacturer's guidelines and recommendations) shall be corrected at SMC's expense. SMC will not attempt to recover costs from VCU associated with correcting the defect or deficiency unless through prior written agreement with VCU.

Upon completion of testing and problem resolution, all connections will be 100% Error-free. "Error-free" is defined to mean the item meets all the manufacturer's specifications and recommendations as published in their latest manufacturing manuals for proper installation and testing. In addition, the item must conform to related industrial practices and standards, Building Trades, and Electrical and Telecommunications Industry Standards and Practices in place at the time of the project and VCU's Telecommunications Specifications as presented within this proposal.

For each item of testing, SMC will issue a certificate of compliance along with the test results to VCU, in writing. All failed UTP cables will be clearly labeled and identified as defective and the type of defect (i.e. open ring side, grounded tip, short, etc.) identified.

SMC will attempt to remedy any defective copper cable pair, and VCU, upon receipt of the information, will notify SMC of VCU's option to have the Contractor remove and replace the defective connection or attempt additional repairs.

### **3.2 Copper Cable Test Procedures**

SMC will complete cable system performance verifications on all copper as specified below and provide the test results to VCU. Cables will meet or exceed all manufacturer's and EIA/TIA standards for performance and installation. All copper testing documentation will be submitted to VCU in soft-copy format.

After the installation is complete, in addition to any other required testing, and at such times as the VCU/Project Manager may direct, SMC will conduct and report on the following tests of copper cabling:

1. MDF/IDF/Telecommunications Closets – tests of all new pairs installed under this contract to determine continuity, shorts, crossed pairs, correct pinning and grounds.
2. Connectivity tests of all new cable pairs installed under this contract to determine continuity, shorts, crossed pairs, correct pinning and grounds.
3. All cabling terminated on RJ45 modular jacks will be tested end to end and documented for compliance at all frequencies up to and including 250 MHz for Category 6, and 500 MHz for Category 6A. Testing will comply with the procedures and standards outlined

by the cable manufacturer and ANSI/TIA-568-C.2 concerning testing of cable plant. SMC will provide the following test result data:

- a. Wire Map
- b. Length
- c. Insertion Loss
- d. NEXT Loss
- e. PS NEXT Loss
- f. ACR-F Loss
- g. PS ACR-F Loss
- h. Return Loss
- i. Propagation Delay
- j. Delay Skew

Test results for cables will be considered successful only when both TIA/EIA 568-B requirements and the manufacturer's published channel performance levels for the above characteristics are met. Test all existing cables for continuity, polarity, reversals and shorts/grounds. Any cable discovered not capable of meeting specifications will be replaced.

SMC will test all new workstation and riser cable for proper installation using a full suite of tests to determine if cable meets generic cabling or network type requirements (including 100BASE-TX 100BASE-T4, 1000BASE-T, and 10GBASE-T among others).

The tester used on Enhanced-performance cabling will be of narrow-band frequency domain, DSP-based full vector design, with a dynamic range of 90 dB or greater. A Fluke DTX 1800 cable analyzer, or equivalent, will be used for Enhanced-performance testing to ensure that cables are defect free. The testing unit will be pre-programmed with the manufacturer's cable and connecting hardware parameters prior to the commencement of testing.

4. VCU may conduct performance tests of transport electronics connected to the cabling system. Successful equipment performance tests will not relieve SMC from the specified testing, repair, and documentation requirements.
5. SMC will provide electronic copies of all copper cable test results to the project manager.
6. VCU and their project manager shall have the right to observe any or all portions of the testing.

In addition to the tests specified above, SMC will be present while VCU conducts any performance tests of the transport electronics connected to the cabling system and to conduct on-the-spot cable tests and effect cable plant repairs, as necessary.

Successful equipment performance tests do not relieve SMC from the specified testing, repair, and documentation requirements.

### **3.3 Fiber Optic Cable Test Procedures**

All fiber optic cable and associated equipment, both horizontal and vertical, will be thoroughly tested. SMC understands that VCU requires all strands to be tested and found to be 100-percent acceptable.

SMC will test all cables, connectors, associated equipment and hardware furnished upon receipt of same as defined herein.

SMC will test, as described below, all optical fiber cable strands installed within the scope of this proposal:

1. Fully test complete links only. Piecemeal testing is not acceptable.
2. Perform end-to-end, bi-directional attenuation (loss) tests for each fiber strand at 850nm and 1300nm wavelengths for multimode, and 1310nm and 1550nm wavelengths for single-mode. Conduct tests in accordance with EIA/TIA-526-14 (multimode) and EIA/TIA-526-7 (single-mode), Method B and with test instrument manufacturers published instructions.
  - a. Demonstrate that measured link loss does not exceed the expected value based on the number of mated connector pairs, the connector's published loss per mated pair and the cable's published loss based on distance.
  - b. Strands whose measured attenuation falls outside the acceptable range shall be subject to further inspection and testing to determine the nature of the fault. An OTDR may be used to determine the true loss for each connector pair, the exact length of the fiber and to identify the presence of any core damage.
3. Faults related to connector terminations shall be corrected and the fiber re-tested as stated above until acceptable attenuation measurements are received.
4. Where defects are found to be inherent in the fiber itself, SMC will notify the VCU project manager in writing. Upon obtaining approval by the VCU project manager, SMC will replace any cable having less than the manufacturers guaranteed number of serviceable fibers.
5. All test results and corrective procedures will be documented and submitted as part of the overall documentation package. Each test report form shall provide the following information:
  - a. Project name
  - b. Contractor's name
  - c. Date(s) of preparation and of testing
  - d. Fiber type, strand count, connectors and patches
  - e. Designated cable number (regardless of whether only one cable of each type is present) and individual fiber numbers

- f. Make, model, and serial number of test equipment used
- g. Test results: Calculated maximum link loss, OTDR (if applicable) and also Power Meter measured link loss for each fiber, pass/fail result and comments.
6. In addition to the tests specified above, SMC will be available while VCU conducts performance tests of the transport electronics connected to the cabling system and will conduct on-the-spot cable tests and effect cable plant repairs, as necessary. Successful equipment performance tests do not relieve SMC from the specified testing, repair, and documentation requirements.
7. SMC will provide copies of all fiber and copper cable test results to VCU.
8. VCU and its representatives shall have the right to observe any or all portions of the testing.

### **3.4 Replacement**

Any copper cable, jack, block, or module installed by SMC, which tests below the manufacturer's standards, shall be replaced at no additional cost to VCU. The replacement cable, connector, or part shall be tested after repairs have been made to verify compliance. Only equipment that meets the installation requirements stated herein shall meet VCU's acceptance requirements.

### **3.5 Physical Inspection**

Prior to conducting any transmission testing, the following visual inspections will be performed:

- ▶ Verify that all cable has been installed to full compliance with the proposal specifications.
- ▶ Check that all cabling is properly jacketed; installation properly labeled at both ends of the cable, inner duct and termination hardware is completed in the Telecommunications room.
- ▶ Verify that all cable bends are within the manufacturer's specified bend radius.
- ▶ Verify that all cabinets and racks (which require grounding) are properly grounded and comply with the National and Local Electrical Codes for grounding.
- ▶ Verify that the cables are properly approved and structurally supported for termination.
- ▶ Verify that all State Fire Code requirements have been met and satisfied.

### **3.6 Documentation**

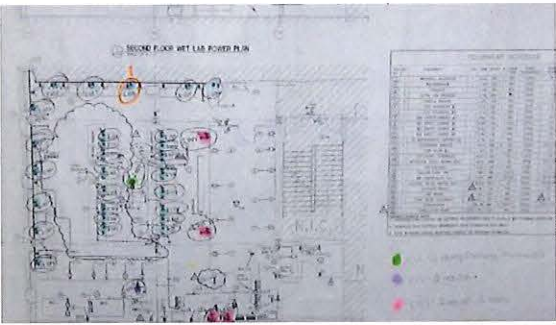
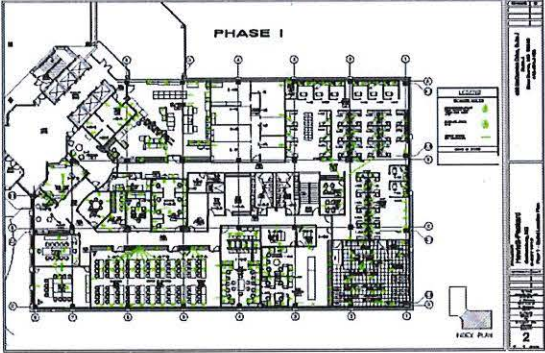
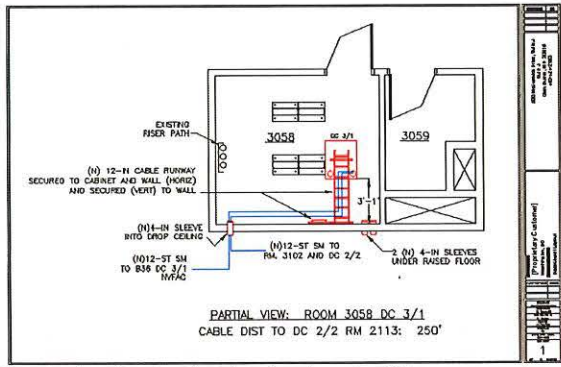
SMC will provide VCU with a comprehensive documentation package at the completion of the project. The purpose of the package is twofold: First, to demonstrate that SMC has installed the system according to both vendor and industry guidelines. Second, the documentation package functions as a living document that can be updated by VCU administrators as VCU assumes administration of the new infrastructure and makes moves, adds, and changes to it.



SMC achieves these two goals by providing a documentation package that details all major system elements, using widely accessible desktop applications. This includes AutoCAD for both configuration and as-built drawings – such as backbone, horizontal distribution, and wall plate configuration diagrams. It also includes applications such as Microsoft Excel for managing backbone and horizontal subsystem run sheets.

**Figure 1 – Documentation that allows self-administration and reduces troubleshooting time.**

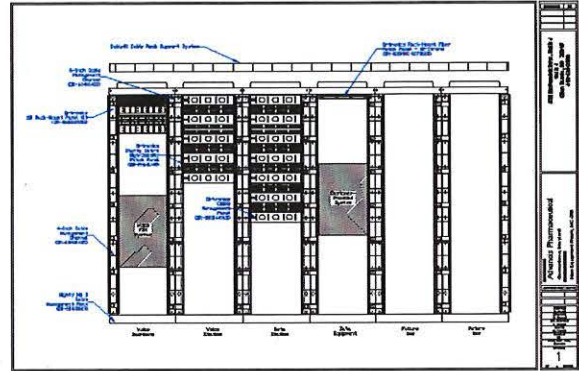
The following documentation will be provided to VCU at the completion of the project:

Documentation Item	Example
<p><u>Floor Plan Record Drawings</u> – Hard-copy floor plan record drawings provided by the customer can be marked with all installed node locations, including corresponding ID.</p>	
<p><u>Floor Plan Record Drawings</u> – Floor plan record drawings can be marked with all installed node symbol types, showing both orientation within walled off and/or cubicle area, and corresponding ID. We can also indicate all major cable routes, along with automated custom line types (using special features of AutoCAD) that indicate whether the cabling is supported by cable tray or j-hooks.</p>	
<p><u>Data Closet Layout Record Drawings</u> – SMC can create overhead-view drawings that represent the final layout of the customer's TRs. This is particularly valuable to clients such as VCU, who find, for example, that some closets have more or less cabinets or cable tray than originally anticipated in the original design.</p>	

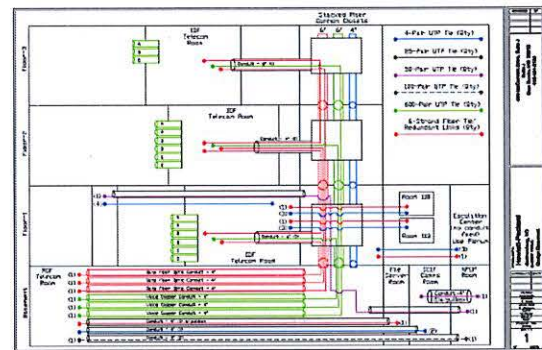
## Documentation Item

## Example

Voice Wall-Field/LAN Rack Elevation Record Drawings – SMC can provide voice wall field and LAN rack elevation record drawings for all telecom rooms that are part of this project. Each drawing can denote manufacturer and model # for the relevant telecom racks, punch blocks, UTP patch panels, fiber patch panels, and riser/horizontal media entering or exiting the passive equipment. These drawings enable customers not only to understand the cable infrastructure assets relevant to the telecom room, but also understand the capacity for user growth relevant to that part of the building.

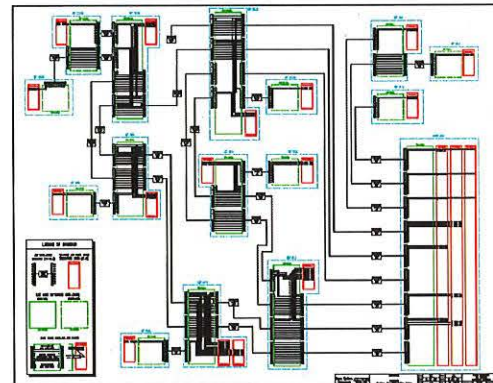


Backbone Record Drawings – SMC can update all copper and fiber OSP and ISP logical riser diagrams to represent the final configuration. This includes building/closet origins and destinations and intermediate points, such as manholes/hand holes. It also includes media types (fiber/ copper/ coax) and pair/strand counts.



OM3 Backbone Fiber Drawing – SMC can provide a large-scale logical drawing that depicts the overall air-blown optical fiber distribution system. This schematic can depict both the existing and SMC-installed routes.

This particular documentation is also accompanied by the results of the optical fiber tubes testing.

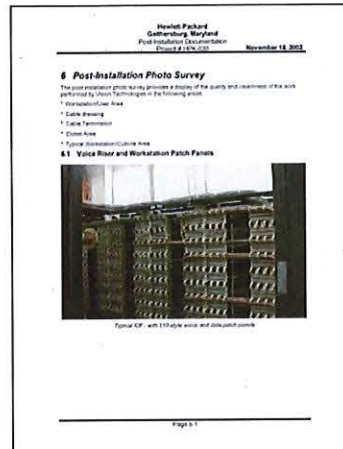




## Documentation Item

## Example

Photo Survey – when almost all installation and testing is complete, SMC can, with VCU's permission, take digital photos of representative areas (both telecom room and workstation areas) where work was performed. The purpose of this is to document the quality of work performed by the end of the project. It is SMC's habit to do this in the intermediate stages of the project also, as a method of in-process quality control. However, only photos taken at the final stage will be included in final documentation package.

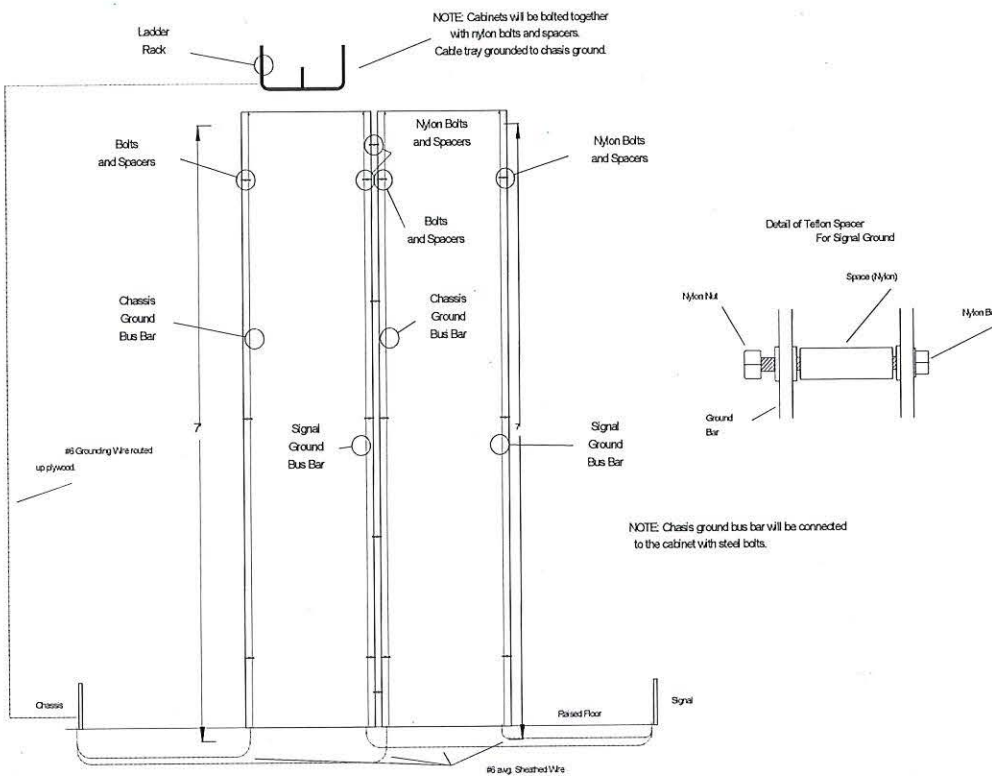


The above documentation will be presented to the VCU Project Manager in both hard- and soft-copy format per RFP requirements.

### 3.7 Grounding Plan

All telecommunications grounding and bonding shall comply with all applicable laws, regulations, standards and codes and any applicable amendments.

The system will adhere to the grounding and bonding specifications stated in the RFP to ensure that the introduction and conduction of electromagnetic or radio frequency interference (EMI/RFI) to the cabling system and/or any electronics connected to that system is eliminated.



**Figure 2 – SMC strictly adheres to industry standards for grounding and bonding.**

An earth electrode subsystem is normally installed as a low resistance path to earth for lightning and power fault currents and to ensure that hazardous voltages do not occur within the facility. This subsystem will be capable of dissipating to earth the energy of direct lightning strikes without suffering any degradation. The resistance to earth of the earth electrode subsystem will not exceed 1 ohm.

An equipotential network provides an equal potential with minimum impedance between the associated electronic components, racks, frames, etc. Equipment cases mounted in racks, cabinets, or enclosures will be bonded to the equipment case. The DC resistance between any two points within a chassis or equipment cabinet service used as a reference for higher frequency signals shall be less than 1 milliohm (0.001 ohm) to minimize the voltage differential between the two points. The grounding conductor shall not penetrate equipment cabinets or cases but shall be terminated on a ground stud peripherally, or equivalent, welded to the metal barrier.

We will use ground wire in accordance with the following table:

Distance (feet)	Wire Size (AWG#)
up to 100	6
101-160	4
161-250	2
251-350	1
351-400	0
401-500	00

Total DC resistance to the ground stud will not exceed 1 ohm.

Ground wire will be solid conductor or braided and will be in sheaths. All bonds will be suitably protected against corrosive atmospheres, vibrations and/or mechanical damage. Each bonded joint will be protected against corrosion by assuring that the metals to be bonded are galvanically compatible. Bonds will be protected from vibration-induced deterioration by assuring that bolts and screws are adequately torqued.

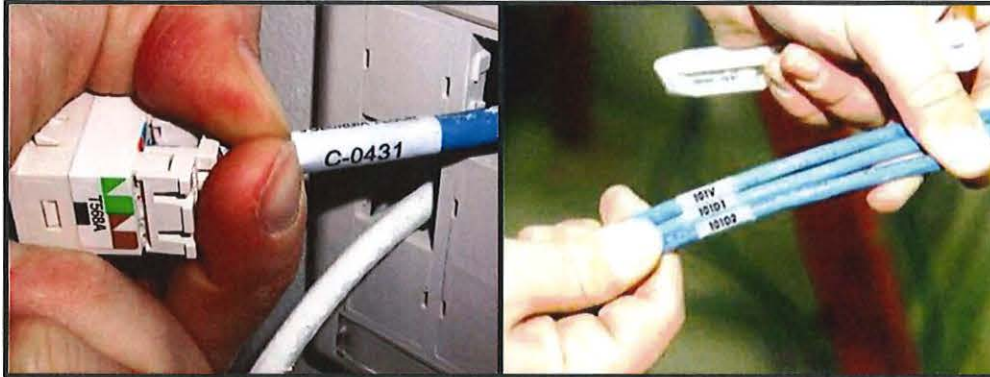
Each cabinet will be tied to chassis ground with a 6 AWG sheathed ground wire.

Gas, water pipes, and building steel will NOT be used as a grounding electrode.

### 3.8 Labeling

The proposed cabling infrastructure for VCU's environment is extensive and relatively complex. The management and support of such a large network can be accomplished by a consistent, cohesive labeling scheme. SMC is proposing an industry-standard labeling scheme to enable accurate, usable documentation, and an easily managed cabling system. The scheme being utilized follows the ANSI TIA/EIA 606-A, "Administrative Standard for the Telecommunications Infrastructure of Commercial Buildings".





**Figure 3 – SMC adheres to BICSI and TIA/EIA standards for labeling procedures.**

The labeling plan/scheme will comply with the requirements of VCU. Its purpose is to facilitate the location of, and identification of, any cable or component comprising a circuit that has to be moved, changed, or potentially repaired or replaced. The identification pertains to all associated information such as cable type, manufacturer, etc.

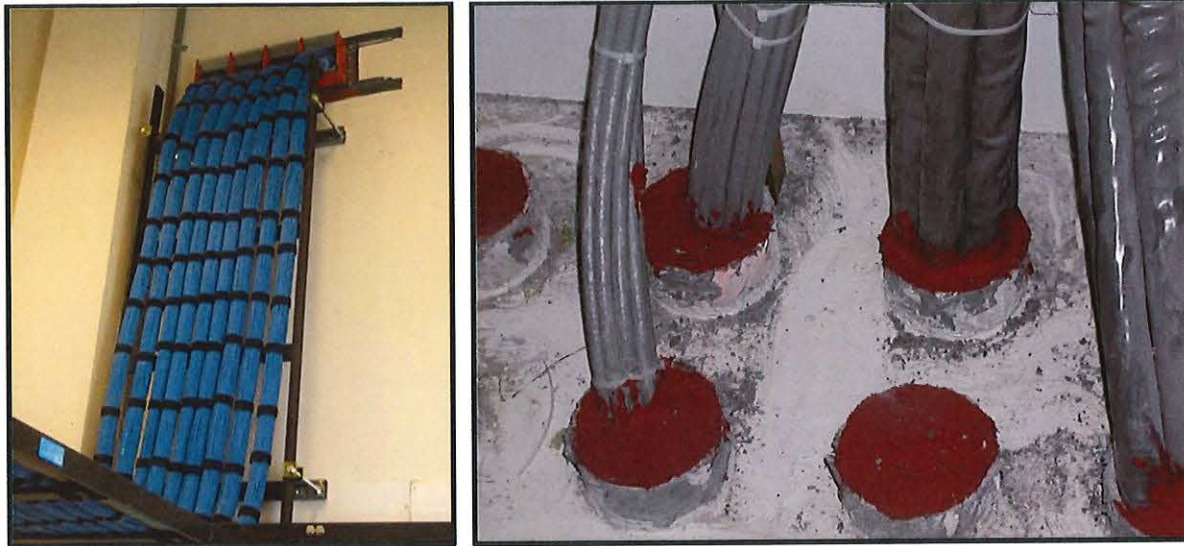
The areas to be addressed by the labeling scheme are:

1. Termination points for the telecommunications media cable located in work areas, telecommunications closets, equipment rooms and entrance areas.
2. The telecommunications media (cable) between terminations;
3. The pathways between terminations that contain the media (cable);
4. Spaces where terminations are located;
5. Bonding/Grounding as it applies to telecommunications

### **3.9 Fire stopping Plan**

Fire stopping in the past was not regulated; local and state codes did not specify proper installation practices, nor did they inspect buildings to insure fire stopping was done. Times have changed, and SMC has taken steps to keep up with these changes. Both the SMC engineering staff and project managers have undergone training in the proper installation of Firestop. The project manager will review the intended products and their applications with the Facilities Department or appropriate parties prior to their installation.

Firestops come in many different varieties, but they are designed to do the same thing: contain fire and smoke. Restricting the spread of fire and smoke from one area of a building to another is the very essence of what fire stopping is all about.



**Figure 4 – SMC-installed firestop at Politico and United States Postal Service**

Below is a list of the various types of fire stopping products. Some or all of these products may be required at your facility depending on the applications:

- ▶ **One Part Sealant or Caulks** - This broad category of products includes water-based caulks, silicone sealant, solvent-based intumescent products and grout-type products. These products are typically used for small openings under 2 inches around pipes or cables.
- ▶ **Putties** - Firestop putties resemble modeling clay and are frequently used to fill small openings around pipes and cables up to 3 inches. No tools are required when installing the putty; you can easily form the putty and insert it into the opening by hand. Putties work well where cables are frequently added or removed since the putty does not harden and can be re-used.
- ▶ **Mortars** - These products are usually Portland Cement-based and are used around pipes through block or cement walls and floors or large openings. Mortars also work well to fill cable tray openings. The Mortar is typically installed in the same manner as cement using plywood or foam to form it.
- ▶ **Intumescent Wrap Strips** - Intumescent products expand when exposed to fire or intense heat. These products are typically used around plastic pipe to close off the opening created by the burning or melting pipe.
- ▶ **Two-Part Foams** - Silicone Foam is the oldest form of firestop. This product is called RTV Foam; it works by vulcanizing at room temperature. This product can be used to fill small to medium openings.
- ▶ **Firestop Bags or Pillows** - These products resemble beanbags; the pillows are stacked in the openings to fill the hole. This product is ideal for cable tray penetrations or openings that are constantly re-opened for cable entry.
- ▶ **Mechanical Firestop Systems** - This term applies to custom, factory-made bolt-in devices.



## **4 SMC RESPONSIBILITIES**

### **4.1 Daily Progress Reports**

SMC will provide a daily Progress Report to the VCU Project Manager including:

- Employees on Site
- Hours Worked
- Work Locations (today and planned tomorrow)
- Progress
- Problems/Concerns
- Weather and/or Significant Access Delays

### **4.2 Project Management**

SMC Project Manager will conduct an onsite progress meeting and QA review with the VCU onsite project manager weekly. Every SMC project has a dedicated project manager (PM) who is tasked with ensuring that the system installation is completed on time, per the specification and/or customer requirements. SMC believes that effective project management is a fundamental element leading to a successful installation. Prior to the commencement of the project, the SMC project manager will meet with client contacts and project managers to identify the following milestones and customer requirements:

- Project start date
- The Client or General SMC contact information
- Staging of materials
- Scheduling issues
- Parallel systems requirements
- Installation phasing
- Interim milestones (i.e. – specific completion dates for sub-tasks)
- Identification of specific client requirements (i.e. – color-coding of data center cabling, data center foot-printing, outlet labeling schemes, etc.)
- Change management process
- Overall completion date

Using the information identified in this initial meeting, the Project Manager will prepare a project plan for approval. The project plan will detail:

- Start dates for specific tasks and/or phases
- Interim milestones
- Project coordination with client representatives
- Resource allocation
- Materials delivery and installation dates

- Client responsibilities (i.e. – site security, access for installation teams)
- Scheduled completion dates

The project manager will work closely with the job-site foreman and client contact(s) to update the project plan to accurately reflect project status. As progress payments may be tied to the successful completion of Interim Milestones, it is imperative that both SMC and the client agree on the project's status. Regular meetings between the PM and the client representative will insure that the project plan accurately depicts the project status. SMC will provide the client with regular, consistent project updates and reports detailing project status.

SMC's Project Management is focused on the following key areas of the project life cycle:

A. Integration Management

1. Coordination of installation tasks with other trades and owner's representatives
2. Plan Development
3. Installation
4. Change Control

B. Scope Management

1. Initiation
2. Scope Planning
3. Scope Verification
4. Scope Change Control

C. Time Management

1. Activities Definitions
2. Sequencing
3. Duration Estimation
4. Schedule Development
5. Schedule Control

D. Budget and Cost Management

1. Resource Planning
2. Cost Budgeting
3. Cost Control
4. Materials Management

E. Quality Management

1. Quality Planning

2. In-Process Quality Control
3. Quality Assurance and Testing
4. Documentation

#### F. Communications

1. Information Distribution
2. Performance Reporting

Of particular importance to a fast-paced project like this one is the ability to manage the timing and acquisition of materials, and the interface between SMC and the other trades involved in the build out. SMC's experience in large-scale cabling projects demonstrates the ability to properly manage materials acquisition, distribution and installation. SMC has an excellent relationship with our suppliers, and is in good standing with regards to credit and financial stability. Materials staging, management and delivery will be coordinated through the distribution channel, the on-site Project Manager. SMC's experience with the installation of large-scale projects has provided us with an excellent understanding of the importance of cooperation with the other trades. The Project Manager will attend construction meetings and regularly meet with the client's project manager to coordinate activities, provide status reports and orchestrate the installation field crews to synchronize our activities with the other trades.

SMC will incorporate Change Orders into the master Project Plan and provide the client with a revised project plan for approval. The client, prior to the implementation of the approved changes to the project, must grant approval for the revised project plan. SMC's field technicians and engineers are trained to respond positively to all change order requests, gathering the client's new requirements and defining the change to the scope. The change request is then presented to an authorized agent of the client for approval. Upon approval, SMC incorporates the revised scope into the project. A Change Order form (either SMC's or the client's) will be incorporated into the project plan to document the new requirements.

### **4.3 VCU Access and Safety**

SMC personnel will wear a hard hat & safety glasses at all times while in construction work areas. SMC will adhere to all OSHA and EM-385 rules, and as may be directed by the VCU Safety Officer. Presence of someone certified to have completed the OSHA 30-Hour Safety Training program should be identified.

SMC will coordinate with VCU on meeting(s) with the VCU Safety Office and VCU PM to review the SMC's site specific safety plan and training documentation. All walkways and travel areas must be clear of materials and debris at all times. SMC will provide & maintain access control safety products as needed to keep unauthorized persons from inadvertently entering the construction area (cones, barriers, caution tape, etc.) where applicable.

SMC will work with VCU for securing visitor and vehicle passes for SMC's personnel.

### **4.4 Site Access and Work Permits**

SMC tasks will include the following:

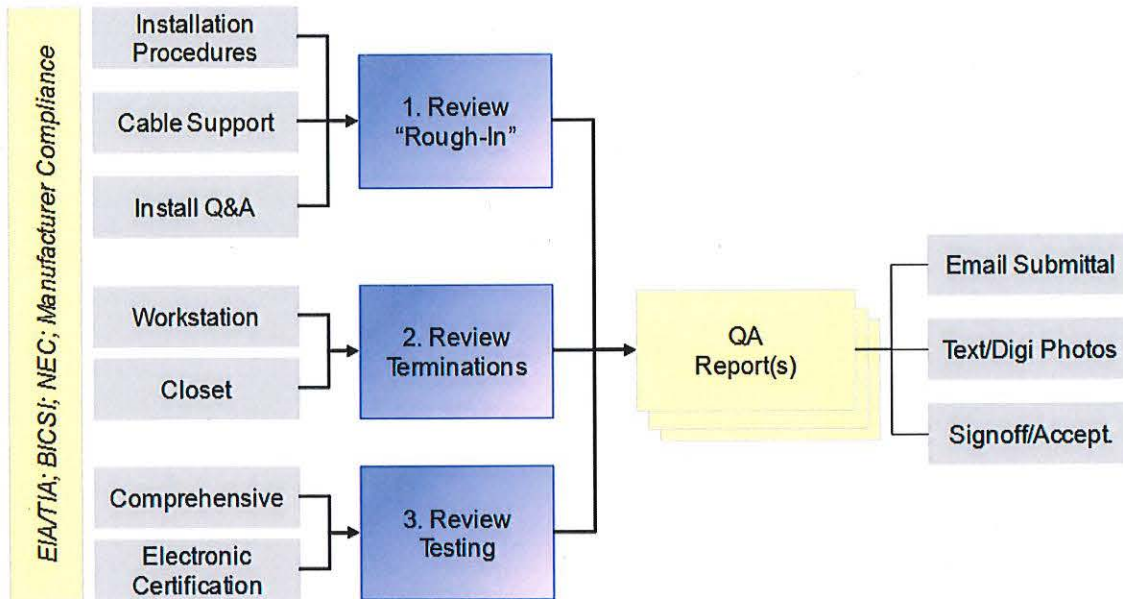
- Coordinating with VCU site representatives to gain access to the building sites before traveling to the job site and beginning work.
- Verifying with the VCU Project Manager that designated representatives approved installation plans before beginning work.
- Obtaining work permits and access clearance authorization as required from site representatives before beginning work.

# 5 QUALITY ASSURANCE

## 5.1 Quality Control Program

SMC is committed to 100% Customer Satisfaction. In support of this commitment, SMC performs a variety of quality-assurance processes. In-process quality control provides quality inspections during the installation to insure that the installation is on-track and correct. The quality process includes every aspect of the project, from materials management to project leaders, engineers, and field technicians. This process ensures that the customer expectations are being met or exceeded throughout the life cycle of the project.

SMC testing and documentation methodologies provide the framework for ensuring a quality installation. Each cable is inspected, tested and certified for the application intended. Manufacturers are provided the testing and documentation results for independent certification and the manufacturer's warranty.



**FIGURE 10 – SMC OVERALL QUALITY CONTROL METHODOLOGY.**

SMC's approach to quality assurance can be broken into three principal project phases:

**Review/Rough-in** – This phase involves the continual review of quality during the cable rough-in phase. During this phase, SMC's PM/QC Manager will conduct a review to determine that the following items are performed within manufacturer, industry, and VCU standards:

- Cable Support
- Cable Routing
- Cable Dress-in
- Cable Lacing
- Cable Loading
- Cable Labeling
- Rack Installation
- Fire stopping
- Other Applicable Installation Practices

Review Terminations – During the termination phase, SMC's QC Manager will review the following:

- Proper termination distance for cabling at both wall plate and punch block/patch panel
  - Review cable routes
  - Review post-termination cable slack/service loops left in wall plate and patch panel areas
  - Review wall plate labeling (each technician labels the inside of the Wall plate to show pride in his or her workmanship).
  - Ensure that marked-up floor plans and run sheets are legible (for processing by CAD and documentation department) and meet RFP requirements for data completeness
  - Ensure that field test equipment is properly and recently calibrated according to all applicable requirements
  - Ensure that cable remains properly supported, dressed and fastened
- Review Testing – During the testing phase, SMC's QC Manager will review the following:
- End-to-end quality of installation practices and adherence to manufacturer, industry, and customer standards.
  - Review the testing of all areas of the system, including ensure that test parameters were set correctly; tests were executed correctly; test reports are in conformance with requirements; and no installed system element was missed

A failure at any one of these levels will result in a full review to determine the extent of the particular quality problem. Once this has been determined, a full-scale correction of any quality issue will be performed. These corrections will be performed in such a way (through the application of additional resources, as well as off-hours work) that the schedule will not be delayed. While the core quality team consists of the SMC Project Manager (Quality Control Manager), Engineer, and QC/Safety Manager, SMC intends to solicit the active involvement of VCU during all of these testing phases.

## 5.2 Quality Assurance Checklist

A sample of the quality assurance checklist used for SMC's cable infrastructure projects is provided below. The SMC quality-assurance checklist documents the various aspects of the installation that are subject to review, with the final inspection performed by the client. Sign-off by the client is critical in the quality process. SMC will consider no installation complete until accepted by the client. This table will be extended and adapted as necessary (with VCU input) to meet the requirements of the VCU project.

WALKTHROUGH CHECKLIST	YES	NO	N/A	COMMENTS
Are all cables installed, verified and run-sheets complete?				
Are all cables and jacks the correct color?				
Are all cables terminated at workstation?				
Are all cables terminated in closet?				
Are all cables tested?				
Are all cables labeled?				
Are all patch panels and connecting hardware labeled?				
Are all test results accounted for and saved?				
Are all ceiling tiles closed and in place?				
Are all wall plates fastened and leveled?				
Are all cables properly supported?				
Are cables dressed and combed in closet(s)?				
Are racks mounted to floor?				
Are racks properly grounded?				
Are all penetrations fire-stopped?				
Are all modular locations routed and boxes mounted?				
Is all furniture moved back to its original location?				
Are all desks, furniture and floors clear of dust and dirt?				
Are customer premises clean and returned to its prior condition?				
Have as-built drawings been updated and a copy been submitted to customer?				
Are all patch cords the right color and length and turned over to FDIC?				
Have all materials and tools been collected and accounted for?				
Type of tester used:				
Customer Sign-Off	Date:			

TABLE 1 – QUALITY ASSURANCE CHECKLIST

### 5.3 Customer Care

In addition to the in-process quality control process (RCDD Review) and the quality walkthrough above, we perform Customer Care calls to ensure that we met the SMC Standard throughout the lifecycle of the project. Immediately following is a copy of our Customer Satisfaction Survey; hopefully it will give you some appreciation for the types of things we feel are important.

#### Customer Satisfaction Survey

Scale: 5 is great – 1 means "needs improvement"

1. We believe in 100% Customer Satisfaction Guarantee. Did we achieve this goal in providing our services to you?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
2. Was our quote or proposal you received clear and easy to understand?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
3. Did our quote/proposal accurately reflect the scope of work you defined/required?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
4. Did our scheduling of the project meet your time frame requirements?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
5. Was the installation team on time and fully prepared to begin work?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
6. Were our technicians professional and courteous to you and your internal customers?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
7. We believe good project management is critical to a project's success? How was our overall project management? Did we communicate with you effectively and adequately throughout the project?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
8. Did our technicians clean up their messes as they went? Were the premises left in the same or better condition than they were found?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
9. Did the finished product meet or exceed your expectations?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
10. Did our project leader do a final walkthrough with you to verify completion of the work to your satisfaction?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
11. Have you received your documentation package? Was it complete to your satisfaction?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
12. Is there anything else we can do for you?  
 Yes       No

TABLE 2 – CUSTOMER SATISFACTION SURVEY



## 6 PROJECT MANAGERS

**SMC, INC.**

**JAMES D. GILLESPIE, RCDD**

Job Title: Estimator/Project Manager

Start Date: 3/2013

Reports to: President and Business Development Manager

### Responsibilities & Duties:

- Estimate projects bidding in the private and public sectors
- Track projects to ensure timely completion according to the project schedule.
- Incorporate past experience into new estimating practices.
- Maintain customer relationships
- Ensure proposals meet the required specifications and are installed according to drawings.
- Design and build projects per the requested criteria.
- Pursue new clients where the opportunity exists.

### Skills & Experience:

- 4 pair cabling; Cat 3 – Cat 6e networks and all associated equipment.
- Various data networks; WANG, Token Ring, DEC, ThinNet.
- Fiber Optics; inside and OSP installation, termination, testing, splicing, and repair.
- OSP copper; UG and aerial installation. Splicing, testing and repair.
- Duct banks; Installation of manholes, hand holes, and duct bank.
- CCTV; Installation and programming.
- FA; Installation and programming.
- CATV; installation and testing.
- Antennas; fiber wave, microwave, and RF.
- DC power systems and batteries.
- Experienced in operations, scheduling, project management, and estimating.
- The ability to engineer networks and systems of all types including but not limited to copper, fiber, campus, CATV, CCTV, and FA.
- Proficient in Power Point, Excel, Word, and Visio

### Previous Employment Highlights:

- Safeco Field -Responsible for the installation of the entire broadcast infrastructure where we installed over 1 million feet of video and audio cable.
- EMP -Experience Music Project. Responsible for the installation of the audio and ambient sound systems.
- Whole Barracks - Total redesign and installation of the communications systems for a historical barracks campus on Ft. Lewis. This system included OSP and inside construction of the voice, data, and CATV systems.

**SMC, INC.**

**JAMES D. GILLESPIE, RCDD - CONTINUED**

---

- Mukilteo City Hall - Complete Category 6 network of 200 four-plex locations built successfully without any call backs under the very specific requirements of government and consulting entities.
- Ft. Lewis Service - Completion of several smaller projects with several being installed simultaneously. These jobs were all awarded to low bid and required knowledge of both The Army and Ft. Lewis requirements.
- Kimberly-Clark - Responsible for the complete maintenance of the copper and fiber optic cable systems. Included was the administrative maintenance of the Dfinity telephone switch and the installation of Cisco routers and switches. I was also responsible for minor repairs to miscellaneous low voltage systems including the site wide evacuation/paging system.

**Certifications, Licenses & Training:**

- Licensed low voltage electrician – WA State
- Registered Communications Distribution Designer
- Certification – Siecor Fiber Optics Engineering
- BICSI – Fiber Optic Network Design

**Security Clearance:**

- None

Building Industry Consulting Service International

THE PROFESSIONAL DESIGNATION OF

**REGISTERED COMMUNICATIONS  
DISTRIBUTION DESIGNER®**

IS AWARDED TO

**James D Gillespie**

by BICSI in recognition of having successfully completed BICSI's registration and examination requirements.

Designation Number: 192475R  
Registration Start Date: 1/1/2017  
Registration End Date: 12/31/2019



**Bicsi**  
**RCDD**  
Since  
3/4/1995

Chair, Registrations & Credentials Supervision Committee

Director of Credentialing

**SMC, INC.**

**MARK G. STAHL**

Job Title: Project Manager TPMA / Estimator

Start Date: 2013

Reports to: President & Business Development Manager

**Responsibilities & Duties:**

- Project Management/Cost Estimation for Telecommunications Projects.
- Directs, plans, and organizes the installation, repair, and maintenance of telecommunication projects.
- Estimates cost of material and labor according to established procedures.
- Survey and design, AutoCAD drawings, project planning and start up.
- Coordinated work schedules with clients and crew to meet schedule deadlines and budget requirements for structured cable installations.
- Installation support, quality assurance, cost control and project closing
- Provides technical support in the installation of telecommunications infrastructures
- Communicates effectively, identify and analyze problems/needs/issues, assess their impact and make recommendations.
- Insures necessary planning, scheduling and acceptance testing is appropriately carried out.

**Skills & Experience:**

- Telecommunications Project Management Association Training
- Installing, supporting and troubleshooting desktop systems in an enterprise environment
- Installation and Maintenance of Microsoft Server 2003, Microsoft Windows 2000/XP clients, Microsoft Office and Outlook.
- IT Management and IS Management.
- AutoCAD LT and Visio
- Microsoft Project
- Installation and termination of CAT3, CAT5, CAT5e, CAT6, CAT6A and CAT7 Terra Speed Copper cables for Structured Cabling Installations and Outside Plant Installations
- Termination and Fusion Splicing of Fiber Optic Cables for Structured Cabling Installations and Outside Plant Installations
- Testing and Troubleshooting of Copper and Fiber Optic Cables

**Previous Employment Highlights:**

- Project Manager / Field Supervisor
- Supervised and Project Managed various copper and fiber installations for the U.S. House of Representatives
- Supervised and Managed Large Data Center Structured Cabling Install for Navy Federal
- Project Managed Large Structured Cabling install for National Institutes of Health
- FAA Potomac TRACON, Warrenton VA, Fiber Optic Cable install and CCTV Upgrade
- Aberdeen Proving Grounds, Aberdeen, MD Tenant Fit Out 20K Fiber to Desktop Install
- University of MD R H Smith School of Business, 3K+ CAT5e Voice/Data drops. Multi-mode fiber drops. Single-Mode fiber backbone.

- Capital Hilton Hotel Washington, DC. 900 CATV Drops and Upgrades
- Madison Hotel Washington, DC 500 CAT5e Voice/Data Drops. 400 CATV Drops. 100 pair Voice Riser
- Zurich Insurance Baltimore, MD 1K+ CAT5e Voice/Data & Fiber Backbone Upgrades Onsite support for Adds, Moves and Changes
- Field Supervisor / Technician
- NASDAQ Data Center and Offices Single-mode and Multi-mode Fiber installation
- Skadden, Arps, Slate, Meagher & Flom LLP Tenant Fit Out of 2K CAT5e Voice/Data Drops
- MD National Bank conversion to Nations Bank Baltimore, MD. 20K+ CAT5 Voice/Data and Fiber Optic Drops
- Maryland Casualty Insurance Data Center and Offices Baltimore, MD. 2500+ CAT5 and CAT 5e Voice/Data Drops
- United States Naval Academy Annapolis, MD 20K+ CAT5 Voice/Data & Fiber Optic Drops, Multimode Fiber Optic Backbone and Single Mode Fiber Optic Backbone
- Voice of America, Tangier, Morocco, 200+ CAT5 Voice/Data Drops, 100+ Audio Cabling and Audio Controls and Speaker Systems

**Certifications, Licenses & Training:**

- Telecommunications Project Management Association
- Professional Development Training /Execution Culture
- Confined Space Training – Superior Safety
- Safe Trenching – Superior Safety
- CPR Certification
- Leviton Networks Certified Cabling Installer
- Leviton Design Council Member
- AT&T Certified Fiber Optic Splicing/Connectors
- AT&T Certified Fiber Optic Test Equipment
- Pass & Seymour Certified Cable Installer
- Molex Certified Cabling Installer
- Telecommunications Project Manager
- Sumitomo Design Engineer
- Molex Design Engineer
- Siemon Cabling System Certified Design Engineer
- SYSTIMAX Structured Connectivity Solutions
- Fluke Networks- Certified Cabling Test Technician

**Security Clearance / Access:**

- NACI Clearance
- RapidGate Badge Holder

## 7 SIEMON CERTIFICATIONS – COMPANY – TECHNICIANS



# SIEMON CI® CERTIFICATION

This is to certify that  
**Southern Maryland Cable**  
of  
**Tracys Landing, MD**

has been approved by The Siemon Company as a Certified Installer<sup>SM</sup> to design, install and administer the Siemon Cabling System®.

Installations that comply with all Siemon Cabling System® design, installation and administration procedures and use Siemon authorized products and qualified cable may be registered and are eligible for the applicable Siemon Cabling System® warranty.

Original Approval: March 27, 2014  
Current Certificate: June 16, 2016  
Date of Expiration: June 16, 2018



on behalf of The Siemon Company  
IS-1831-13 Rev B



**SIEMON™**  
CERTIFIED INSTALLER

# Certificate of Completion

Presented by The Siemon Company

This certifies that

**Mark Stahl**

of

**Southern Maryland Cable**

has completed the Certification Design Principles and Installation Practices course that is required to become a Siemon Cabling System® Authorized Designer/Installer.

Event ID: OV-SIEM-CT-1114-1. This course is recognized for 21 BICSI CECs

Registration Number: 14032718-M-CT  
Original Approval: March 27, 2014  
Current Certificate: June 16, 2016  
Date of Expiration: June 16, 2018

  
on behalf of The Siemon Company



# Certificate of Completion

Presented by The Siemon Company

This certifies that

**Joseph Bryant**

of

**Southern Maryland Cable**

has satisfactorily completed the online recertification course to maintain the status of a Siemon Cabling System Authorized Designer/Installer.

*Event ID: OV-SIEM-CT-1114-2.* This course is recognized for 2 BICSI CECs.

Registration #: 14032717-M-CT

Original Approval: March 27, 2014

Current Certificate: July 31, 2016

Date of Expiration: July 31, 2018

  
on behalf of The Siemon Company





# Certificate of Completion

Presented by The Siemon Company

This certifies that

**Mike Batoon**

*of*

**Southern Maryland Cable**

has completed the Certification Design Principles and Installation Practices course that is required to become a Siemon Cabling System® Authorized Designer/Installer.

Event ID: OV-SIEM-CT-1114-1. This course is recognized for 21 BICSI CECs

Registration Number: 16061610-N-CT

Original Approval: June 16, 2016

Current Certificate: June 16, 2016

Date of Expiration: June 16, 2018



*on behalf of The Siemon Company*



## **8 REFERENCES**

### **8.1 St Mary's County Public Schools**

Michael Reese

IT Project Coordinator

St. Mary's County Public Schools

301-769-4600

mcreese@smcps.org

### **8.2 NASA Goddard Space Flight Center**

Lewis (Chip) Palumbo BICSI RCDD

NICS/SAIC GSFC Voice Com Manager

Office (301) 286-9986

lewis.h.palumbo@nasa.gov

Building 1, Room 10

Code 761.1

Greenbelt MD. 20771

### **8.3 Level 3 Communications**

Tara Gyenis

Federal Account Director

Government Markets Group

44633 Guilford Drive

Ashburn VA 20147

571.283.3919

tara.gyenis@level3.com

#### **8.4 MJUD Cable & Wiring Services Contract**

Awarded 2014 – Contract is ongoing.

Kelly Moore, Procurement Specialist

Maryland Judiciary, Administrative Office of the Courts

Procurement and Contract Administration

2003 C Commerce Park Drive

Annapolis, Maryland 21401

410-260-1583 Office

410-260-2520 Fax

## 9 EXPERIENCE MODIFICATION RATE (EMR)

**SmithBrothers.**

January 11, 2017

Southern Maryland Cable, Inc.  
PO Box 30  
Tracys Landing, MD 20779

**Re: Southern Maryland Cable, Inc.  
Experience Modification Rate History**

To Whom It May Concern:

The experience modification rate history for Southern Maryland Cable, Inc. is as follows:

Year	Experience Modification Factor
7/1/2016 to 7/1/2017	.73
7/1/2015 to 7/1/2016	.73
7/1/2014 to 7/1/2015	.96
7/1/2013 to 7/1/2014	.99
7/1/2012 to 7/1/2013	.97

Sincerely,

*Trish Snow Mack*

Trish Snow Mack  
Associate Account Manager  
[psnowmack@smithbrothersusa.com](mailto:psnowmack@smithbrothersusa.com)  
860-430-3232

Insurance | Surety | Risk Management | Benefits | Financial

Smith Brothers Insurance, LLC    Tel: 860 652- 3235  
68 National Drive, Suite 2    Toll Free: 800 426-6946  
Glastonbury, CT 06033-4314    Fax: 860 652-3236  
SmithBrothersUSA.com

## 10 FINANCIAL STABILITY AND BONDING CAPACITY

### Southern Maryland Cable, Inc.

5932 Old Solomon's Island Rd.  
Tracy's Landing, MD. 20779-2107  
Office: (410) 867-7577 Fax: (410) 867-4340

- **State Incorporated:** Delaware (DE)
- **Incorporated Date:** July 9, 2003
- **Year Established:** 1982
- **Congressional District:** 5
  
- **TIN Number:** 20-0086897
- **W-9 Number:** 20-0086897
- **MD SDAT Number:** F07487408
- **Duns Number:** 00-511-7064
- **Federal USDOT:** 622373
- **D&B Rating:** 1R3
- **(FCC) Federal Communication Commission Number:** 0026162024
- **Spin Number:** 143034891
- **IFTA License Number:** MD20008689700, **Account Number:** 000402
- **E-Verify Number:** 375938
- **AA County Construction License:** 02530212 (022228943/11208149)

SMC is an owned subsidiary of Argan, Inc. Rockville, MD (Symbol: AGX)

Certified Payroll	Rene Vaughn	<a href="mailto:RVaughn@smcinc.biz">RVaughn@smcinc.biz</a>
Accounts Receive/Payable	Beth Garrett	<a href="mailto:BGarrett@smcinc.biz">BGarrett@smcinc.biz</a>
Subcontracts, Warranty & Etc.	Dennis Madden	<a href="mailto:DMadden@smcinc.biz">DMadden@smcinc.biz</a>
Lien Release	Kimberly Wilson	<a href="mailto:KWilson@smcinc.biz">KWilson@smcinc.biz</a>

Insurance Agency:

### Smith Brothers Insurance, LLC.

68 National Drive  
Glastonbury, CT. 06033  
Office: (860) 652-3235; Fax: (860) 652- 3236  
[Generalmailbox@SmithBrothersUSA.com](mailto:Generalmailbox@SmithBrothersUSA.com)

### Argan, Inc.

One Church Street  
Suite 201  
Rockville, MD. 20850  
Office: (301) 315-0027 Fax: (301) 315-0064

- **State Incorporated:** Delaware (DE)
- **Incorporated Date:** May 16, 1961
  
- **Tin Number:** 13-1947195
- **Cage Code:** E1481
- **Duns Number:** 00-132-5877
- **SEC File Number:** 001-31756
- **SEC CIK Number:** 0000100591

#### Credit References

##### **Bank of America**

**Contact:** Gary Fennington  
1101 Wootton Parkway  
4<sup>th</sup> Floor  
Rockville, MD. 20852  
**Office:** (301) 517-3106  
**Account Number:** 003921312890

##### **Graybar Electric**

**Contact:** Steve Godstrey  
4800 Forbes Blvd.  
Lanham, MD. 20706  
**Office:** (301) 459-2600 **Fax:** (301) 731-0573

##### **Accutech**

**Contact:** Kathy Garlepp  
1495 Hembree Rd.  
Suite 100  
Roswell, GA. 30076  
**Office:** (888) 222- 8832 ext. 42247; **Fax:** (770) 740-2257

##### **Comstar Supply Inc.**

**Contact:** Michael McGovern, VP of Finance  
105 Kestrel Drive  
Collegeville, PA. 19426  
**Office:** (610) 487-1991  
[mmcgovern@comstarsupply.com](mailto:mmcgovern@comstarsupply.com)

##### **Power & Tel**

**Contact:** Cary Hancock  
P.O. Box 1000  
Dept. 839  
Memphis, TN. 38148-0839  
**Office:** (901) 866-3020  
[Cary.Hancock@ptsupply.com](mailto:Cary.Hancock@ptsupply.com)



January 11, 2017

Mr. Dennis Madden  
Southern Maryland Cable, Inc.  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779

RE: **Southern Maryland Cable, Inc.  
Contractors Prequalification Letter**

To Whom It May Concern:

Southern Maryland Cable, Inc. is a highly regarded and valued client of Aon Risk Solutions and Travelers Casualty and Surety Company of America. With respect to Southern Maryland Cable, Inc.'s bonding capacity, please be advised that Travelers Casualty and Surety Company of America will consider providing bonding support for individual projects with contract values approaching \$5,000,000 and backlogs approaching \$25,000,000.

Naturally, as is customary within the surety industry, the issuance of any final bonds is contingent upon a favorable underwriting review of project specifics, to include, but not be limited to, the contract terms, conditions, bond forms and verification of complete project financing by both Southern Maryland Cable, Inc. and Travelers Casualty and Surety Company of America. It should be understood that any arrangement for surety bonds is a matter strictly between Southern Maryland Cable, Inc. and Travelers Casualty and Surety Company of America. We assume no liability to third parties or to you by issuance of this letter.

Travelers Casualty and Surety Company of America is authorized to conduct surety business in all fifty states, is rated A++ (Superior) by A.M. Best Company, and is listed in the United States Department of Treasury's Listing of Approved Sureties (Department Circular 570) dated July 1, 2016.

Aon Risk Solutions and Travelers Casualty and Surety Company of America strongly recommend Southern Maryland Cable, Inc. Please feel free to contact this office if you need additional assurance regarding their technical ability or bonding capacity.

Sincerely,

Jane Gilson  
Construction Services Group



# VCU Procurement Services

## COMMONWEALTH OF VIRGINIA STANDARD CONTRACT

**Contract Number: 7406884AA**

This contract entered into by Southern Maryland Cable, Inc., 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 24, 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:**

Southern Maryland Cable, Inc. \_\_\_\_\_

By: *Dennis Madden* \_\_\_\_\_

Name Printed: Dennis Madden

Title: President

Date: July 19, 2017

**PURCHASING AGENCY:**

Virginia Commonwealth University \_\_\_\_\_

By: *Brenda Mowen* \_\_\_\_\_

Name Printed: Brenda Mowen

Title: Director of Procurement

Date: 7/26/17





# VCU

VCU Procurement Office  
912 West Grace Street, 5th Floor  
Box 980327  
Richmond, Virginia 23284  
**804 828-1077** • Fax: 804 828-9188  
TOO: 1-800-828-1120  
procurement.vcu.edu

an equal opportunity/affirmative action university

July 3, 2017

Dennis Madden  
Southern Maryland Cable, Inc.  
5932 Old Solomon's Island Road  
Tracy's Landing, MD 20779

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.

*Quinn Maddox*  
PRESIDENT

SOUTHERN MARYLAND CABLE, INC.

JULY 10, 2017



## INSTALLATION OF COPPER/FIBER INFRASTRUCTURE CABLING

Virginia Commonwealth University

May 25, 2017

Prepared by

Mark Stahl RTPM

Business Development / Project Manager  
(410)867-7577

[mstahl@smcinc.biz](mailto:mstahl@smcinc.biz)



**SIEMON**<sup>™</sup>  
CERTIFIED INSTALLER

**Bicsi**<sup>®</sup>  
CORPORATE  
MEMBER

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# 1 EXECUTIVE SUMMARY

## 1.1 Corporate Overview

Southern Maryland Cable, Inc. (SMC) specializes in Technology Infrastructure, Power Distribution & Information Transport. SMC provides telecommunications infrastructure solutions including project management, construction and maintenance to federal and local governments, telecommunications and broadband service providers, electric utilities and commercial enterprises.

SMC comprehensive solutions include data, voice, video, and security cabling systems for both the Inside Plant (ISP) and Outside Plant (OSP), with full life-cycle support services ranging from analysis, design and engineering to testing, acceptance, facility management and maintenance.

SMC is proud to build long term relationships with organizations to provide solutions to you, your customers and end-users. We are a cleared defense company and bring over 30 years' experience in working with Federal (DOD, Civilian, & Secure) and State Government Agencies, System Integrators, Network Carriers, Commercial & Financial Organizations, Developers, General and Mechanical SMCs. We are headquartered in the National Capital Region and provide services throughout the United States.

SMC is a wholly owned subsidiary of Argan, Inc. (NYSE Symbol: AGX). As a holding company, Argan conducts operations through its wholly owned subsidiaries, Gemma Power Systems (GPS), Atlantic Projects Company Limited (APC), The Roberts Company (TRC) and Southern Maryland Cable (SMC).

Argan Revenues:

Year ended January 31, 2017	\$675,047,000
Year ended January 31, 2016	\$413,275,000

GPS provides a full range of development, consulting, engineering, procurement, construction, commissioning, operations and maintenance services to the power generation and renewable energy markets for a variety of customers including public utilities, independent power project owners, municipalities, public institutions and private industry.

Headquartered in Dublin, Ireland, APC provides turbine, boiler and large rotating equipment installation, commissioning and outage services to original equipment manufacturers, EPC's and plant owners worldwide. APC maintains offices in Hong Kong, Singapore and New York.

Headquartered near Greenville, North Carolina, TRC is principally an industrial fabricator and constructor serving both light and heavy industrial organizations primarily in the southern United States. Its fabrication services offer unlimited steel plate fabrication specializing in custom complex ASME code pressure vessels and heat exchangers. In addition, TRC provides a full service project solutions group for grass

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roots projects, as well as a plant services group to handle maintenance turnarounds, shutdowns and emergency mobilizations.

Southern Maryland Cable, Inc. is a highly regarded and valued client of Aon Risk Solutions and Travelers Casualty and Surety Company of America (Travelers). With respect to SMC's bonding capacity, Travelers will consider providing bonding support for individual projects with contract values approaching \$5,000,000 and backlogs approaching \$25,000,000.

## **1.2 Capabilities Overview**

SMC delivers turnkey telecommunications infrastructure solutions with a full team of certified, experienced technicians using cutting edge technology products and top of the line equipment to ensure your job is done well, on-time, on-budget, minimizing hassles and disruptions and satisfying you and your clients.

SMC comprehensive solutions include data, electric, voice, video, and security cabling systems for both the Inside Plant (ISP), Outside Plant (OSP), Facilities, Pier/Water Front, and WAN support with full life-cycle support services ranging from analysis, design and engineering to testing, acceptance, and AutoCAD.

SMC has an estimated response time of 2-4 business days for Request for Quote (RFQ).

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## 1.3 About SMC

- ▶ **The Company Behind the Company** – Our success is defined by your success. Our value is defined in the things we do to support Virginia Commonwealth University and their end-user community. Whether responding to a network outage, special projects, staff augmentation, technical support, or infrastructure services, SMC is prepared to do whatever it takes to support your organization and ensure that your customers are well-served. We put a lot of stock in the customer service relationship and the role it plays in our value proposition. We offer value engineering support and program/project management support to increase our partners' intellectual capital. This provides a proactive approach to supporting high-profile and fast-tracked projects, thus increasing the level of success. Using our email updates system, our web-enabled virtual project management office (VPMO), or with a single phone call, you can easily track project status, add resources, modify schedules, or make scope changes.
- ▶ **The Siemon Company Warranty/SMC Lifetime Warranty** – The 20 Performance Assurance Warranty will be provided. In addition to the manufacturer's warranty, SMC will provide a lifetime warranty for the quality of workmanship. We feel our commitment to quality, industry certifications and the BICSI installation methodology enables us to augment conventional warranties with our lifetime commitment to craftsmanship and our desire for a long-term relationship with Alliant Technologies.
- ▶ **Large-Scale Experience** – SMC has a great deal of experience with large-scale projects for companies using diverse computer and voice. SMC employees have many years of experience in designing, implementing, and project managing projects that are large in scale and complex in scope. Our experience in supporting large installations is evidenced by our past performance for organizations like CareFirst, Johns Hopkins Applied Physics Lab, Discovery Communications, or Hewlett-Packard, to name just a few. We currently provide MAC support (Moves, Adds and Changes) for each of these multiple-building, multiple-site clients. At Goddard Space Flight Center, we support the voice/data infrastructure for 27 buildings, ranging in type from dedicated office space to Mission Control. At Walter Reed National Military Medical Center, we support over 50 buildings campus-wide for Hewlett-Packard, we are currently supporting installations for both internal HP projects as well as for projects for HP's customers (once again, the company behind the company).
- ▶ **Project Management** – A great deal of confusion and lost productivity can result when a number of different companies supplying different services are brought together for a project. SMC, through its cabling, network, and systems integration experience, eliminates this confusion, providing a single point of contact for all issues. We know that the difference between a good project and a great project is effective project management; for this reason we have defined a support team for this project that has a proven record of success.
- ▶ **Quality Assurance** – SMC is committed to 100% Customer Satisfaction. In support of this commitment, SMC performs a variety of quality assurance (QA)




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processes. In-process quality control, subject matter expert reviews, and scheduled quality inspections ensure that the installation is on-track and correct. The quality process includes every aspect of the project, from materials management to project leaders, engineers, and field technicians.

SMC testing and documentation methodologies provide the framework for ensuring a quality installation. Each cable is visually inspected, tested, and certified for the application intended. Manufacturers are provided the testing and documentation results for independent certification and the manufacturer's warranty.

The SMC Quality Control Checklist documents the various aspects of the installation that are subject to review, with the final inspection being performed by the client. Sign-off by the client is critical in the quality process. SMC will consider no installation complete until accepted by the client. A copy of the Quality Assurance checklist is in the quality section.

- ▶ **BICSI Membership** – BICSI (Building Industry Consulting Service International) is a non-profit professional organization dedicated to economical and efficient communications systems design. Its leadership sits on the boards of numerous eminent standards organizations such as IEEE, ISO, and NEC. BICSI awards the title of RCDD (Registered Communications Distribution Designer) to engineers who have exceptional communications design skills and experience and who have demonstrated so by completing a rigorous course of study and passing a comprehensive examination. SMC understands the value and importance of a BICSI-certified installation, which is why we value our place as a BICSI Corporate Member. SMC staff of RCDDs allows us to offer registered designs and ensure compliance. SMC also actively pursues the BICSI Registered Telecommunications Project Manager (RTPM) credential for our project managers.  

- ▶ **Corporate Structure** – SMC corporate structure is a streamlined, flat organization enabling rapid response to meet customer's project requirements in an expedient manner. The reporting process envelops all personnel and is available to all parties with a need to review the progress status of each project/account. We have always had – and will continue to have – executive management involvement in the execution of projects and the fulfillment of customer service needs. Our executive management team is involved, accessible, and dedicated to an active role as the ultimate point of escalation on each of our important contracts.
- ▶ **After-Installation Support Services** – SMC is committed to the entire life-cycle of our relationship with our customer. We are not only about delivering successful projects; we are about creating successful long-term relationships. We believe that SMC's acceptance of an awarded project is a promise to support and grow with our customer. Our post-installation support service provides a seamless solution to dealing with the moves/adds/changes every company is

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faced with. We provide friendly, professional, and courteous service to your user community to ensure the best support with minimal disruption. We will conform to your business model and provide these services as required. This forward-looking paradigm ensures that all documentation and test data is properly managed and maintained, enhancing our ability to quickly resolve service requests or trouble tickets.

## 1.4 Standards and Codes

SMC will design, manufacture, test, and install telecommunications cabling networks per manufacturer's requirements and in accordance with NEC, NFPA-70 (*fire safety*), state codes, local codes, requirements of authorities having jurisdiction, and particularly the following standards:

ASTM International (ASTM):

- ▶ ASTM B 1 – (2001; R 2007) Standard Specification for Hard-Drawn Copper Wire
- ▶ ASTM B 8 – (2004) Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
- ▶ ASTM D 709 – (2001; R 2007) Laminated Thermosetting Materials

Institute of Electrical and Electronics Engineers (IEEE)

- ▶ IEEE C2 – (2007; Errata 2007; INT 2008) National Electrical Safety Code
- ▶ IEEE Std 100 – (2000) The Authoritative Dictionary of IEEE Standards Terms

National Electrical Manufacturers Association (NEMA)

- ▶ NEMA 250 – (2008) Enclosures for Electrical Equipment(1000 Volts Maximum)
- ▶ NEMA C80.3 – (2005) Standard for Electrical Metallic Tubing (EMT)
- ▶ NEMA ICS 1 – (2000; R 2005; R 2008) Standard for Industrial Control and Systems General Requirements
- ▶ NEMA WD 1 – (1999; R 2005) Standard for General Requirements for Wiring Devices
- ▶ NEMA WD 6 – (2002; R 2008) Standard for Wiring Devices Dimensional Requirements
- ▶ NEMA Z535.4 – (2007; Errata 2007) Product Safety Signs and Labels

National Fire Protection Association (NFPA)

- ▶ NFPA 70 – (2007; AMD 1 2008) National Electrical Code - 2008 Edition  
SECTION 26 20 00 Page 1
- ▶ NFPA 70E (2008) – Electrical Safety in the Workplace

Underwriters Laboratories (UL)

- 
- ▶ UL 1 – (2005; Rev thru Jul 2007) Standard for Flexible Metal Conduit
  - ▶ UL 1660 – (2004; Rev thru Jan 2005) Liquid-Tight Flexible Nonmetallic Conduit
  - ▶ UL 360 (2009) – Liquid-Tight Flexible Steel Conduit
  - ▶ UL 486A-486B – (2003; Rev thru Apr 2009) Standard for Wire Connectors
  - ▶ UL 486C – (2004; Rev thru Apr 2009) Standard for Splicing Wire Connectors
  - ▶ UL 498 – (2001; Rev thru Oct 2008) Attachment Plugs and Receptacles
  - ▶ UL 510 – (2005; Rev thru Aug 2005) Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape
  - ▶ UL 514A – (2004; Rev thru Aug 2007) Standard for Metallic Outlet Boxes
  - ▶ UL 514B – (2004; Rev thru Aug 2007) Standard for Conduit, Tubing and Cable Fittings
  - ▶ UL 514C – (1996; Rev thru Dec 2008) Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
  - ▶ UL 797 (2007) – Standard for Electrical Metallic Tubing -- Steel
  - ▶ UL 83 (20086) – Standard for Thermoplastic-Insulated Wires and Cables
  - ▶ UL 94 – (1996; Rev thru Jun 2009) Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

#### ANSI/TIA/EIA Standards

- ▶ ANSI/TIA-568-C.0, "Generic Telecommunications Cabling for Customer Premises", published 2009
- ▶ ANSI/TIA-568-C.1, "Commercial Building Telecommunications Cabling Standard", published 2009
- ▶ ANSI/TIA-568-C.2, "Balanced Twisted-Pair Telecommunication Cabling and Components Standard", published 2009
- ▶ ANSI/TIA-568-C.3, "Optical Fiber Cabling Components Standard", published 2008, errata issued in October, 2008
- ▶ ANSI/TIA/EIA-606-A – The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
- ▶ TIA-J-STD-607-A – Commercial Building Grounding and Bonding Requirements for Telecommunications.
- ▶ ANSI/TIA-942 – Telecommunications Standard for Data Centers

Federal, state, and local codes, rules, regulations, and ordinances governing the work, are as fully part of the specifications as if herein repeated or hereto attached. In the event that SMC should note items in the drawings or the specifications, construction of which would be code violations, we will promptly call them to the attention of the Virginia Commonwealth University's Project Manager or the owner's representative in writing.

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Where the requirements of other sections of the specifications are more stringent than applicable codes, rules, regulations, and ordinances, the specifications shall apply.

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## 2 TESTING

### 2.1 Test Procedures

Prior to submitting an application for final acceptance, all tests stated within this document will be satisfactorily completed. The communications work includes miscellaneous tasks (i.e., removal of panel trims, junction and pull box covers) deemed necessary by Virginia Commonwealth University to demonstrate compliance with the requirements of the Drawings, telecommunications specifications, and cable and equipment manufacturer's recommended installation procedures.

Any defects or deficiencies (i.e. failure to meet Virginia Commonwealth University or manufacturer's guidelines and recommendations) shall be corrected at SMC expense. SMC will not attempt to recover costs from Virginia Commonwealth University associated with correcting the defect or deficiency unless through prior written agreement with Virginia Commonwealth University.

Upon completion of testing and problem resolution, all connections will be 100% error free: "error free" is defined to mean the item meets all the manufacturer's specifications and recommendations as published in their latest manufacturing manuals for proper installation and testing. In addition, the item must conform to all other related industrial practices and standards, Building Trades, and Electrical and Telecommunications Industry Standards and Practices in place at the time of the project and Virginia Commonwealth University Telecommunications Specifications as presented within the request for proposal.

For each item of testing, SMC will issue a certificate of compliance along with the test results to Virginia Commonwealth University in writing. All failed UTP cables will be clearly labeled and identified as defective and the type of defect (i.e. open ring side, grounded tip, short, etc.) identified.

#### 2.1.1 Copper Cable Test Procedures

SMC will complete cable system performance verifications on all copper as specified below and provide the test results to Virginia Commonwealth University. Cables will meet or exceed all manufacturer's and EIA/TIA standards for performance and installation. All copper testing documentation will be submitted to Virginia Commonwealth University in soft-copy format.

After the installation is complete, in addition to any other required testing, and at such times as the Virginia Commonwealth University /Project Manager may direct, SMC will conduct and report on the following tests of copper cabling:

1. MDF/IDF/Telecommunications Closets – tests of all new pairs installed under this contract to determine continuity, shorts, crossed pairs, correct pinning and grounds.
2. Connectivity tests of all new cable pairs installed under this contract to determine continuity, shorts, crossed pairs, correct pinning and grounds.

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3. All cabling terminated on RJ45 modular jacks will be tested end to end and documented for compliance at all frequencies up to and including 250 MHz for Category 6, and 500 MHz for Category 6A. Testing will comply with the procedures and standards outlined by the cable manufacturer and ANSI/TIA-568-C.2 concerning testing of cable plant. SMC will provide the following test result data:
    - a. Wire Map
    - b. Length
    - c. Insertion Loss
    - d. NEXT Loss
    - e. PS NEXT Loss
    - f. ACR-F Loss
    - g. PS ACR-F Loss
    - h. Return Loss
    - i. Propagation Delay
    - j. Delay Skew

Test results for cables will be considered successful only when both TIA/EIA 568-B requirements and the manufacturer's published channel performance levels for the above characteristics are met. Test all existing cables for continuity, polarity, reversals and shorts/grounds. Any cable discovered not capable of meeting specifications will be replaced.

SMC will test all new workstation and riser cable for proper installation using a full suite of tests to determine if cable meets generic cabling or network type requirements (including 100BASE-TX 100BASE-T4, 1000BASE-T, and 10GBASE-T among others).

The tester used on Enhanced-performance cabling will be of narrow-band frequency domain, DSP-based full vector design, with a dynamic range of 90 dB or greater. A Fluke DTX 1800 cable analyzer, or equivalent, will be used for Enhanced-performance testing to ensure that cables are defect free. The testing unit will be pre-programmed with the manufacturer's cable and connecting hardware parameters prior to the commencement of testing.

4. Virginia Commonwealth University may conduct performance tests of transport electronics connected to the cabling system. Successful equipment performance tests will not relieve SMC from the specified testing, repair, and documentation requirements.
5. SMC will provide electronic copies of all copper cable test results to the project manager.
6. Virginia Commonwealth University and their project manager shall have the right to observe any or all portions of the testing.

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In addition to the tests specified above, SMC will be present while Virginia Commonwealth University conducts any performance tests of the transport electronics connected to the cabling system and to conduct on-the-spot cable tests and effect cable plant repairs, as necessary. Successful equipment performance tests do not relieve SMC from the specified testing, repair, and documentation requirements.

### **2.1.2 Fiber Optic Cable Test Procedures**

All fiber optic cable and associated equipment, both horizontal and vertical, will be thoroughly tested. SMC understands that Virginia Commonwealth University requires all strands to be tested and found to be 100-percent acceptable.

SMC will test all cables, connectors, associated equipment and hardware furnished upon receipt of same as defined herein.

SMC will test, as described below, all optical fiber cable strands installed within the scope of this proposal:

1. Fully test complete links only. Piecemeal testing is not acceptable.
2. Perform end-to-end, bi-directional attenuation (loss) tests for each fiber strand at 850nm and 1300nm wavelengths for multimode, and 1310nm and 1550nm wavelengths for single-mode. Conduct tests in accordance with EIA/TIA-526-14 (multimode) and EIA/TIA-526-7 (single-mode), Method B and with test instrument manufacturers published instructions.
  - a. Demonstrate that measured link loss does not exceed the expected value based on the number of mated connector pairs, the connector's published loss per mated pair and the cable's published loss based on distance.
  - b. Strands whose measured attenuation falls outside the acceptable range shall be subject to further inspection and testing to determine the nature of the fault. An OTDR may be used to determine the true loss for each connector pair, the exact length of the fiber and to identify the presence of any core damage.
3. Faults related to terminations shall be corrected and the fiber re-tested as stated above until acceptable attenuation measurements are received.
4. Where defects are found to be inherent in the fiber itself, SMC will notify the Construction Manager in writing. Upon obtaining approval by the Construction Manager, SMC will replace any cable having less than the manufacturer guaranteed number of serviceable fibers.
5. All test results and corrective procedures will be documented and submitted as part of the overall documentation package. Each test report form shall provide the following information:
  - a. Project name
  - b. Contractor's name
  - c. Date(s) of preparation and of testing
  - d. Fiber type, strand count, connectors and patches

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- e. Designated cable number (regardless of whether only one cable of each type is present) and individual fiber numbers
  - f. Make, model, and serial number of test equipment used
  - g. Test results: Calculated maximum link loss, OTDR (if applicable) and also Power Meter measured link loss for each fiber, pass/fail result and comments.
6. In addition to the tests specified above, SMC will be available while Virginia Commonwealth University conducts performance tests of the transport electronics connected to the cabling system and will conduct on-the-spot cable tests and effect cable plant repairs, as necessary. Successful equipment performance tests do not relieve SMC from the specified testing, repair, and documentation requirements.
  7. SMC will provide copies of all fiber and copper cable test results to Virginia Commonwealth University.
  8. Virginia Commonwealth University and its representatives shall have the right to observe any or all portions of the testing.

### **2.1.3 Coax Cable Procedures**

#### **2.1.3.1 Coaxial Cable Termination**

Upon termination the connector it shall be hand tested for a secure and tight fit. If the connector can be twisted or turned on the cable, it isn't installed correctly and will fail these acceptance criteria.

#### **2.1.3.2 Coaxial Cable Sweep Test**

The coaxial cable will be tested for return-loss and distance-to-fault tests by an Anritsu, HP or similar cable test instrument.

All cables shall be subjected to cable return loss (RL) tests and distance-to-fault tests using an Anritsu, HP or similar test instrument. Testing shall be done in a single direction and when possible, originate in the telecommunications closets. For the return loss testing, the following frequencies must be tested; 700 – 900MHz and 1700 – 2100MHz. Swept return loss measurements shall not exceed (-12.7dB). Distance-to-Fault cable loss tests, shall be performed to validate proper cable installation (no kinks or tight bends), connectors installed properly and to verify the cable distance. Kinks and overly tight bends resulting in a -30dB loss or greater are faulty. Any cables failing tests, due to improper installation, termination or other workmanship issues, shall be repaired or replaced as necessary.

#### **2.1.4 Replacement**

Any copper cable, jack, block, or module installed by SMC, which tests below the manufacturer's standards, shall be replaced at no additional cost to Virginia Commonwealth University. The replacement cable, connector, or part shall be tested after repairs have been made to verify compliance. Only equipment that meets the



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installation requirements stated herein shall meet Virginia Commonwealth University acceptance requirements.

### **2.1.5 Physical Inspection**

Prior to conducting any transmission testing, the following visual inspections will be performed:

- ▶ Verify that all cable has been installed to full compliance with the proposal specifications.
- ▶ Check that all cabling is properly jacketed; installation properly labeled at both ends of the cable, innerduct and termination hardware is completed in the Telecommunications room.
- ▶ Verify that all cable bends are within the manufacturer's specified bend radius.
- ▶ Verify that all cabinets and racks (which require grounding) are properly grounded and comply with the National and Local Electrical Codes for grounding.
- ▶ Verify that the cables are properly approved and structurally supported for termination.
- ▶ Verify that all State Fire Code requirements have been met and satisfied.

## **2.2 Documentation**

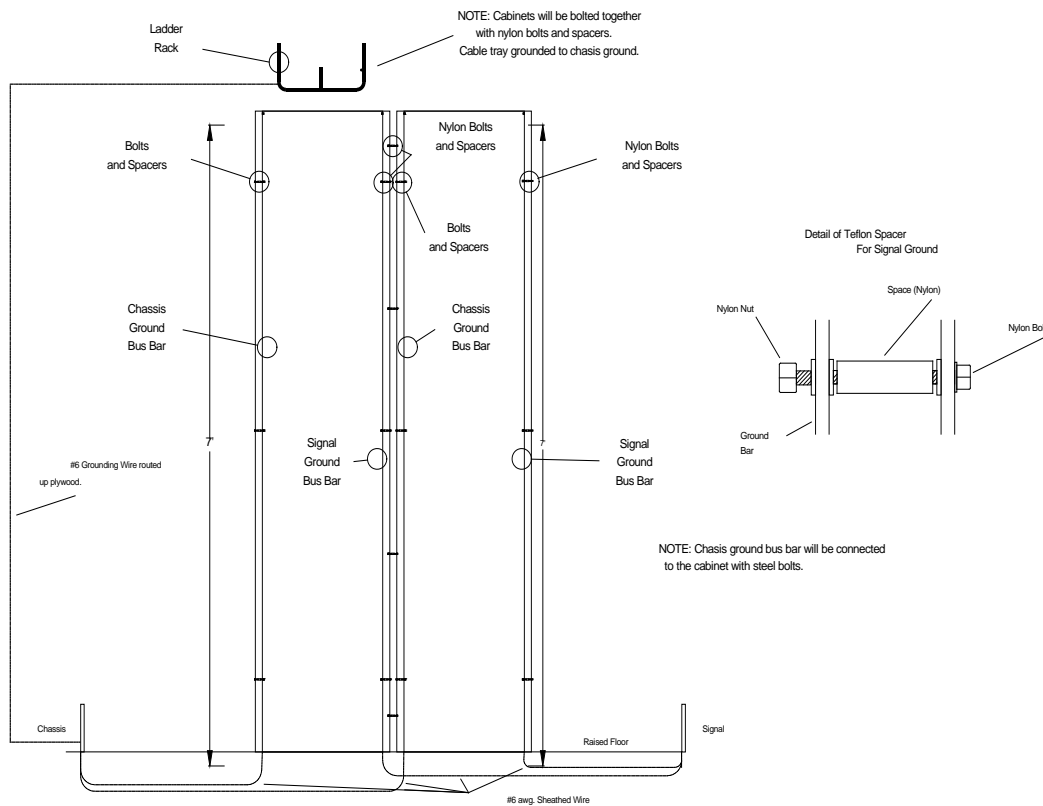
SMC will provide Virginia Commonwealth University with a comprehensive documentation package at the completion of the project. The purpose of the package is twofold: First, to demonstrate that SMC has installed the system according to both vendor and industry guidelines. Second, the documentation package functions as a living document that can be updated by Virginia Commonwealth University administrators as Virginia Commonwealth University assumes administration of the new infrastructure and makes moves, adds, and changes to it.

SMC achieves these two goals by providing a documentation package that details all major system elements, using widely accessible desktop applications. This includes AutoCAD for both configuration and as-built drawings – such as backbone, horizontal distribution, and wall plate configuration diagrams. It also includes applications such as Microsoft Excel for managing backbone and horizontal subsystem run sheets.

## **2.3 Grounding Plan**

All telecommunications grounding and bonding shall comply with all applicable laws, regulations, standards and codes and any applicable amendments.

The system will adhere to the grounding and bonding specifications stated in the RFP to ensure that the introduction and conduction of electromagnetic or radio frequency interference (EMI/RFI) to the cabling system and/or any electronics connected to that system is eliminated.



**FIGURE 1 – SMC STRICTLY ADHERES TO INDUSTRY STANDARDS FOR GROUNDING AND BONDING.**

An earth electrode subsystem is normally installed as a low resistance path to earth for lightning and power fault currents and to ensure that hazardous voltages do not occur within the facility. This subsystem will be capable of dissipating to earth the energy of direct lightning strikes without suffering any degradation. The resistance to earth of the earth electrode subsystem will not exceed 1 ohm.

An equipotential network provides an equal potential with minimum impedance between the associated electronic components, racks, frames, etc. Equipment cases mounted in racks, cabinets, or enclosures will be bonded to the equipment case. The DC resistance between any two points within a chassis or equipment cabinet service used as a reference for higher frequency signals shall be less than 1 milliohm (0.001 ohm) to minimize the voltage differential between the two points. The grounding conductor shall not penetrate equipment cabinets or cases but shall be terminated on a ground stud peripherally, or equivalent, welded to the metal barrier.

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We will use ground wire in accordance with the following table:

Distance (feet)	Wire Size (AWG#)
up to 100	6
101-160	4
161-250	2
251-350	1
351-400	0
401-500	00

Total DC resistance to the ground stud will not exceed 1 ohm.

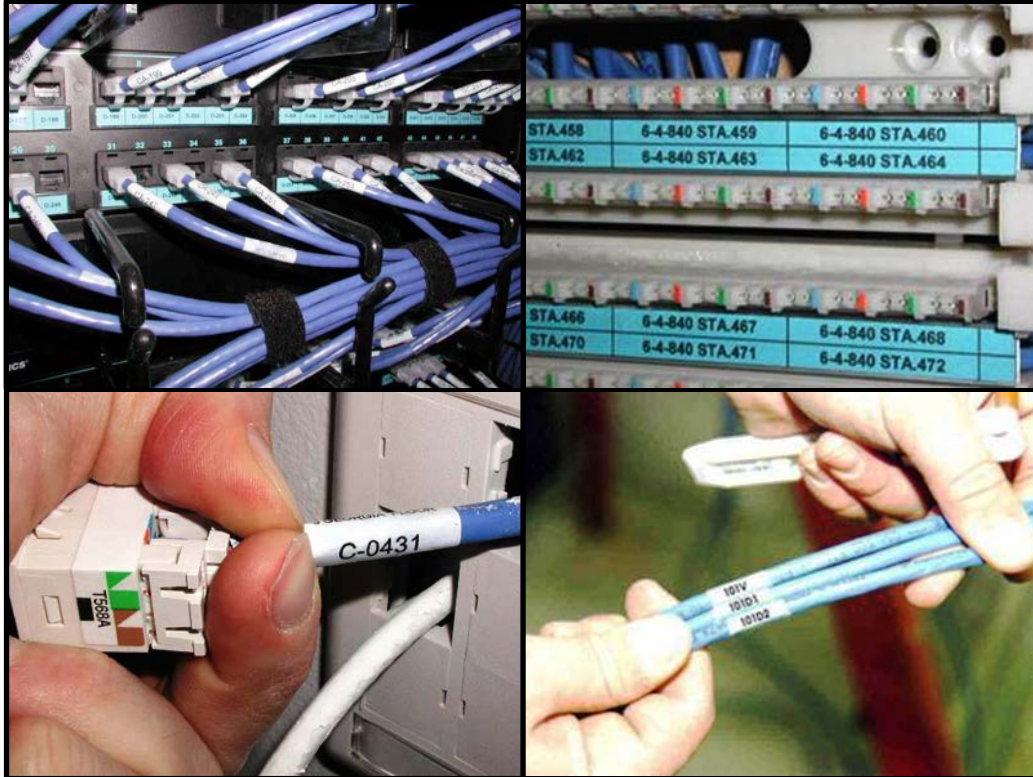
Ground wire will be solid conductor or braided and will be in sheaths. All bonds will be suitably protected against corrosive atmospheres, vibrations and/or mechanical damage. Each bonded joint will be protected against corrosion by assuring that the metals to be bonded are galvanically compatible. Bonds will be protected from vibration-induced deterioration by assuring that bolts and screws are adequately torqued.

Each cabinet will be tied to chassis ground with a 6 AWG sheathed ground wire.

Gas, water pipes, and building steel will NOT be used as a grounding electrode.

## 2.4 Labeling

The proposed cabling infrastructure for Virginia Commonwealth University environment is extensive and relatively complex. The management and support of such a large network can be accomplished by a consistent, cohesive labeling scheme. SMC is proposing an industry-standard labeling scheme to enable accurate, usable documentation, and an easily managed cabling system. The scheme being utilized follows the ANSI TIA/EIA 606-A, "Administrative Standard for the Telecommunications Infrastructure of Commercial Buildings".



**FIGURE 2 – SMC ADHERES TO BICSI AND TIA/EIA STANDARDS FOR LABELING PROCEDURES.**

The labeling plan/scheme will comply with the requirements of Virginia Commonwealth University Its purpose is to facilitate the location of, and identification of, any cable or component comprising a circuit that has to be moved, changed, or potentially repaired or replaced. The identification pertains to all associated information such as cable type, manufacturer, etc.

The areas to be addressed by the labeling scheme are:

1. Termination points for the telecommunications media cable located in work areas, telecommunications closets, equipment rooms and entrance areas.
2. The telecommunications media (cable) between terminations;
3. The pathways between terminations that contain the media (cable);
4. Spaces where terminations are located;
5. Bonding/Grounding as it applies to telecommunications

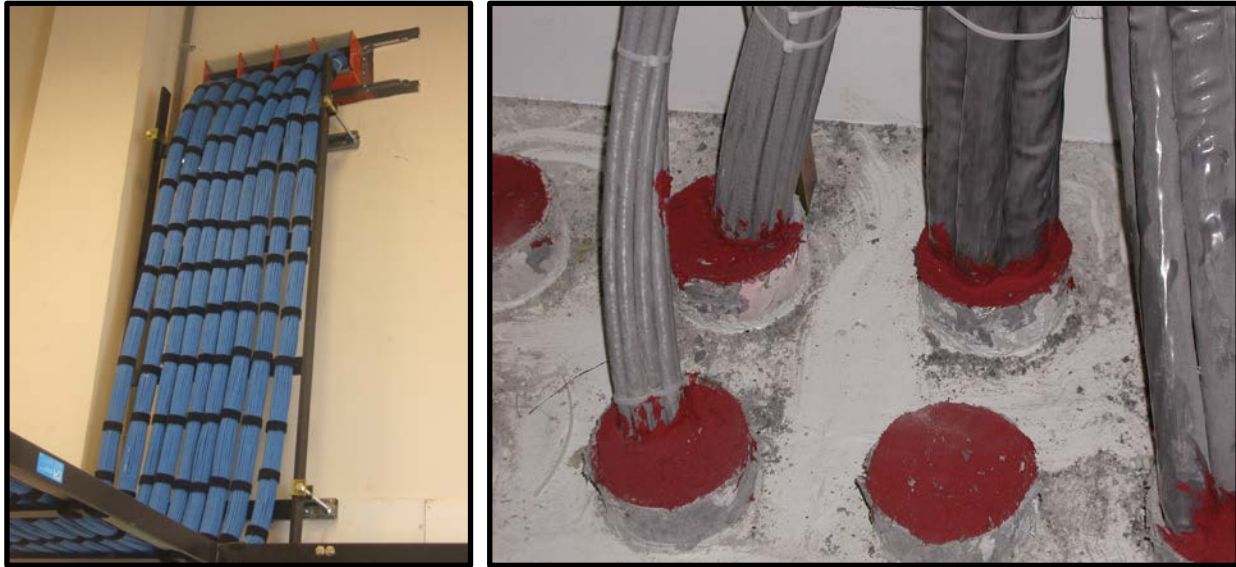
## **2.5 Fire stopping Plan**

Fire stopping in the past was not regulated; local and state codes did not specify proper installation practices, nor did they inspect buildings to insure fire stopping was done. Times have changed, and SMC has taken steps to keep up with these changes. Both the SMC engineering staff and project managers have undergone training in the proper installation of Fire stop. The project manager will review the intended products and their

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applications with the Facilities Department or appropriate parties prior to their installation.

Fire stops come in many different varieties, but they are designed to do the same thing: contain fire and smoke. Restricting the spread of fire and smoke from one area of a building to another is the very essence of what fire stopping is all about.



**FIGURE 3 – SMC-INSTALLED FIRESTOP AT KAISER PERMANENTE AND DISCOVERY COMMUNICATIONS**

Below is a list of the various types of fire stopping products. Some or all of these products may be required at your facility depending on the applications:

- ▶ **One Part Sealant or Caulks** - This broad category of products includes water-based caulks, silicone sealant, solvent-based intumescent products and grout-type products. These products are typically used for small openings under 2 inches around pipes or cables.
- ▶ **Putties** - Fire stop putties resemble modeling clay and are frequently used to fill small openings around pipes and cables up to 3 inches. No tools are required when installing the putty; you can easily form the putty and insert it into the opening by hand. Putties work well where cables are frequently added or removed since the putty does not harden and can be re-used.
- ▶ **Mortars** - These products are usually Portland Cement-based and are used around pipes through block or cement walls and floors or large openings. Mortars also work well to fill cable tray openings. The Mortar is typically installed in the same manner as cement using plywood or foam to form it.
- ▶ **Intumescent Wrap Strips** - Intumescent products expand when exposed to fire or intense heat. These products are typically used around plastic pipe to close off the opening created by the burning or melting pipe.

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- ▶ **Two-Part Foams** - Silicone Foam is the oldest form of fire stop. This product is called RTV Foam; it works by vulcanizing at room temperature. This product can be used to fill small to medium openings.
  - ▶ **Fire stop Bags or Pillows** - These products resemble beanbags; the pillows are stacked in the openings to fill the hole. This product is ideal for cable tray penetrations or openings that are constantly re-opened for cable entry.
  - ▶ **Mechanical Fire stop Systems** - This term applies to custom, factory-made bolt-in devices.

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## 3 PROJECT MANAGEMENT AND METHOD OF PERFORMANCE

### 3.1 Overview

Every SMC project has a dedicated project manager (PM) who is tasked with ensuring that the system installation is completed on time, per the specification and/or customer requirements. SMC believes that effective project management is a fundamental element leading to a successful installation. Prior to the commencement of the project, the SMC project manager will meet with client contacts and project managers to identify the following milestones and customer requirements:



- ▶ Project start date
- ▶ The Client or General Contractor contact information
- ▶ Staging of materials
- ▶ Scheduling issues
- ▶ Parallel systems requirements
- ▶ Installation phasing
- ▶ Interim milestones (i.e. – specific completion dates for sub-tasks)
- ▶ Identification of specific client requirements (i.e. – color-coding of data center cabling, data center foot-printing, outlet labeling schemes, etc.)
- ▶ Change management process
- ▶ Overall completion date

Using the information identified in this initial meeting, the Project Manager will prepare a project plan for approval. The project plan will detail:

- ▶ Start dates for specific tasks and/or phases
- ▶ Interim milestones
- ▶ Project coordination with client representatives
- ▶ Resource allocation
- ▶ Materials delivery and installation dates
- ▶ Client responsibilities (i.e. – site security, access for installation teams)

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- ▶ Scheduled completion dates

The project manager will work closely with the job-site foreman and client contact(s) to update the project plan to accurately reflect project status. As progress payments may be tied to the successful completion of Interim Milestones, it is imperative that both SMC and the client agree on the project's status. Regular meetings between the PM and the client representative will insure that the project plan accurately depicts the project status. SMC will provide the client with regular, consistent project updates and reports detailing project status.

SMC's Project Management is focused on the following key areas of the project life cycle:

- A. Integration Management

1. Coordination of installation tasks with other trades and owner's representatives
2. Plan Development
3. Installation
4. Change Control

- B. Scope Management

1. Initiation
2. Scope Planning
3. Scope Verification
4. Scope Change Control

- C. Time Management

1. Activities Definitions
2. Sequencing
3. Duration Estimation
4. Schedule Development
5. Schedule Control

- D. Budget and Cost Management

1. Resource Planning
2. Cost Budgeting
3. Cost Control
4. Materials Management

- E. Quality Management

1. Quality Planning
2. In-Process Quality Control



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3. Quality Assurance and Testing

4. Documentation

F. Communications

1. Information Distribution

2. Performance Reporting

Of particular importance to a fast-paced project like this one is the ability to manage the timing and acquisition of materials, and the interface between SMC and the other trades involved in the build out. SMC's experience in large-scale cabling projects demonstrates the ability to properly manage materials acquisition, distribution and installation. SMC has an excellent relationship with our suppliers, and is in good standing with regards to credit and financial stability. Materials staging, management and delivery will be coordinated through the distribution channel, the on-site project manager and the SMC program manager. SMC's experience with the installation of large-scale projects has provided us with an excellent understanding of the importance of cooperation with the other trades. The Program and Project managers will attend construction meetings and regularly meet with the client's project manager to coordinate activities, provide status reports and orchestrate the installation field crews to synchronize our activities with the other trades.

SMC will incorporate Change Orders into the master Project Plan and provide the client with a revised project plan for approval. The client, prior to the implementation of the approved changes to the project, must grant approval for the revised project plan. SMC's field technicians and engineers are trained to respond positively to all change order requests, gathering the client's new requirements and defining the change to the scope. The change request is then presented to an authorized agent of the client for approval. Upon approval, SMC incorporates the revised scope into the project. A Change Order form (either SMC's or the client's) will be incorporated into the project plan to document the new requirements.

## 3.2 Reporting

### 3.2.1 Weekly Status Reports

For awarded contracts, SMC relies on weekly status reports from project superintendents. These status reports detail items such as labor hours expended, materials, used, and special problems encountered. These reports provide vital status on whether a job is completing ahead or behind schedule, as well as what factors may be affecting the schedule.

### 3.2.2 Daily Load Reports and Communication with Engineer

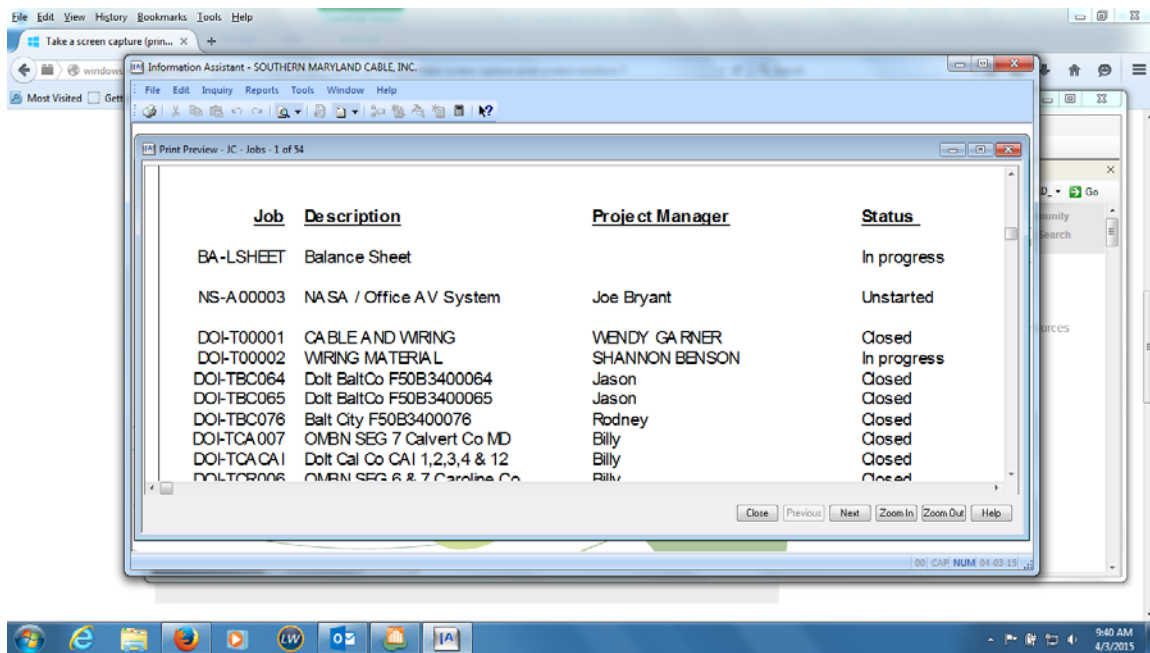
The assigned SMC Project Manager will be the daily point of contact for Virginia Commonwealth University. As part of this effort, the Project Manager will participate in weekly status meetings, provide a weekly status report, and be available to answer questions about the status of SMC's implementation proactively and on an as-needed basis. The Project Manager will also communicate with Virginia Commonwealth

University to understand additional, unplanned requirements and events, and the scope, schedule, and costing implementation for these requirements as they impact the original project.

### 3.3 Other Project Management Tools

SMC uses a variety of tools to ensure comprehensive tracking of project scope schedule and cost, through the entire life of the implementation. These tools include the following software and procedures:

#### 3.3.1 Sage Software - Timberline



<u>Job</u>	<u>Description</u>	<u>Project Manager</u>	<u>Status</u>
BA-LSHEET	Balance Sheet		In progress
NS-A00003	NASA / Office AV System	Joe Bryant	Unstarted
DOI-T00001	CABLE AND WRING	WENDY GARNER	Closed
DOI-T00002	WRING MATERIAL	SHANNON BENSON	In progress
DOI-TBC064	Dolt BaltCo F50B3400064	Jason	Closed
DOI-TBC065	Dolt BaltCo F50B3400065	Jason	Closed
DOI-TBC076	Balt City F50B3400076	Rodney	Closed
DOI-TCA007	OMBN SEG 7 Calvert Co MD	Billy	Closed
DOI-TCA0A1	Dolt Cal Co CAI 1,2,3,4 & 12	Billy	Closed
DOI-TCA008	OMBN SEG 6 & 7 Caroline Co	Billy	Closed

**FIGURE 4 – SMC’S PROJECT ACCOUNTING SYSTEM SHOWING THE STATUS OF MULTIPLE JOBS.**

SMC uses this industry-leading relational database software to provide project and general accounting:

- ▶ Real-time comparison of actual costs against budgets.
- ▶ Integrates construction estimating, accounting, and project management data.
- ▶ Manages contracts, subcontracts, purchase orders, change orders, submittals, RFIs, in one system.

#### 3.3.2 MS Project

SMC utilizes Microsoft Project for planning and scheduling both human and capital resources on large implementations. SMC engineers typically break a large job into its main elements (contract award, equipment ordering, principal work, and signoff) and then break the job into successively smaller and more manageable elements. These schedules are then broken down by other elements, such as floor and phase (e.g. -

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installation, termination, testing, etc.). When the schedule has been divided into the smallest discrete tasks, SMC engineers then assign resources to each task loaded with resources to determine total labor time.

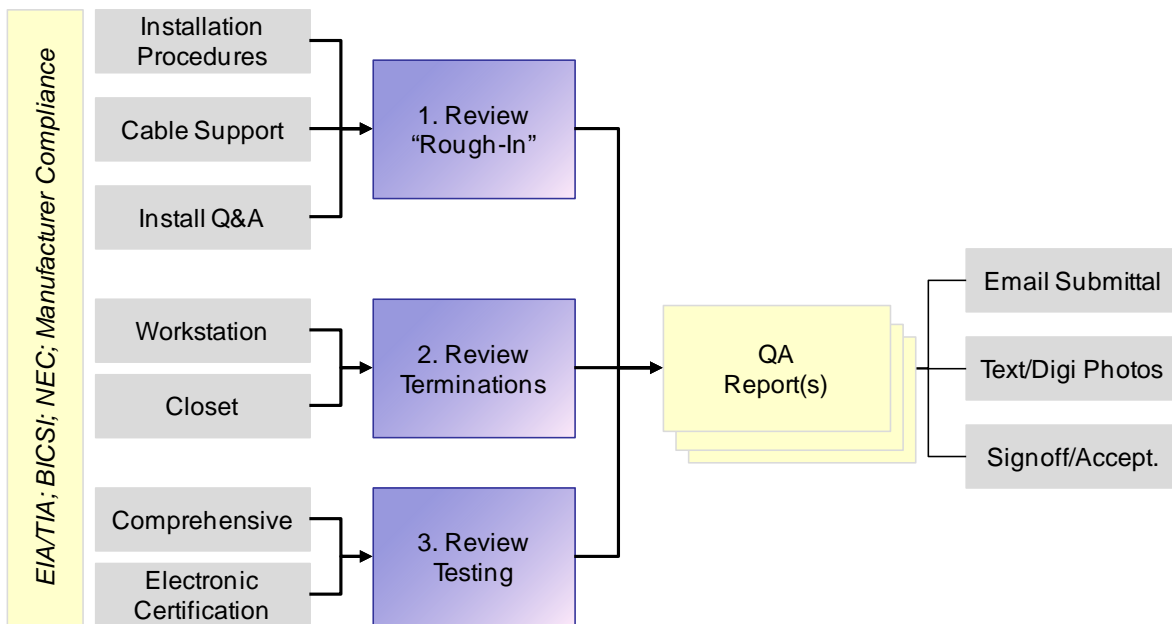
SMC often exchanges this data with the client, consultant, general contractor, and/or other contractors to ensure that schedules are coordinated.

## 4 QUALITY ASSURANCE

### 4.1 Quality Control Plan

SMC is committed to **100% Customer Satisfaction**. In support of this commitment, SMC performs a variety of quality-assurance processes. In-process quality control provides quality inspections during the installation to insure that the installation is on-track and correct. The quality process includes every aspect of the project, from materials management to project leaders, engineers, and field technicians. This process ensures that the customer expectations are being met or exceeded throughout the life cycle of the project.

The SMC testing and documentation methodologies provide the framework for ensuring a quality installation. Each cable is inspected, tested and certified for the application intended. Manufacturers are provided the testing and documentation results for independent certification and the manufacturer's warranty.



**FIGURE 5 – SMC OVERALL QUALITY CONTROL METHODOLOGY.**

SMC's approach to quality assurance can be broken into three principal project phases:

- ▶ **Review/Rough-in** – This phase involves the continual review of quality during the cable rough-in phase. During this phase, SMC's PM/QC Manager will conduct a review to determine that the following items are performed within manufacturer, industry, and Virginia Commonwealth University standards:
  - Cable Support
  - Cable Routing
  - Cable Dress-in
  - Cable Lacing

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- Cable Loading
  - Cable Labeling
  - Rack Installation
  - Fire stopping
  - Other Applicable Installation Practices
  - ▶ Review Terminations – During the termination phase, SMC’s QC Manager will review the following:
    - Proper termination distance for cabling at both wall plate and punch block/patch panel
    - Review cable routes
    - Review post-termination cable slack/service loops left in wall plate and patch panel areas
    - Review wall plate labeling (each technician labels the inside of the Wall plate to show pride in his or her workmanship).
    - Ensure that marked-up floor plans and run sheets are legible (for processing by CAD and documentation department) and meet RFP requirements for data completeness
    - Ensure that field test equipment is properly and recently calibrated according to all applicable requirements
    - Ensure that cable remains properly supported, dressed and fastened
  - ▶ Review Testing – During the testing phase, SMC’s QC Manager will review the following:
    - End-to-end quality of installation practices and adherence to manufacturer, industry, and customer standards.
    - Review the testing of all areas of the system, including ensure that test parameters were set correctly; tests were executed correctly; test reports are in conformance with requirements; and no installed system element was missed

A failure at any one of these levels will result in a full review to determine the extent of the particular quality problem. Once this has been determined, a full-scale correction of any quality issue will be performed. These corrections will be performed in such a way (through the application of additional resources, as well as off-hours work) that the schedule will not be delayed. While the core quality team consists of the SMC Project Manager (Quality Control Manager), Engineer, and QC/Safety Manager, SMC intends to solicit the active involvement of Virginia Commonwealth University during all of these testing phases.

## 4.2 Quality Assurance Checklist

A sample of the quality assurance checklist used for SMC's cable infrastructure projects is provided below. The SMC quality-assurance checklist documents the various aspects of the installation that are subject to review, with the final inspection performed by the client. Sign-off by the client is critical in the quality process. SMC will consider no installation complete until accepted by the client. This table will be extended and adapted as necessary (with Virginia Commonwealth University input) to meet the requirements of the Virginia Commonwealth University project.

WALKTHROUGH CHECKLIST	YES	NO	N/A	COMMENTS
Are all cables installed, verified and run-sheets complete?				
Are all cables and jacks the correct color?				
Are all cables terminated at workstation?				
Are all cables terminated in closet?				
Are all cables tested?				
Are all cables labeled?				
Are all patch panels and connecting hardware labeled?				
Are all test results accounted for and saved?				
Are all ceiling tiles closed and in place?				
Are all wall plates fastened and leveled?				
Are all cables properly supported?				
Are cables dressed and combed in closet(s)?				
Are racks mounted to floor?				
Are racks properly grounded?				
Are all penetrations fire-stopped?				
Are all modular locations routed and boxes mounted?				
Is all furniture moved back to its original location?				
Are all desks, furniture and floors clear of dust and dirt?				
Are customer premises clean and returned to its prior condition?				
Have as-built drawings been updated and a copy been submitted to customer?				
Are all patch cords the right color and length and turned over to FDIC?				
Have all materials and tools been collected and accounted for?				
Type of tester used:				
Customer Sign-Off	Date:			

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### 4.3 Customer Care

In addition to the in-process quality control process (RCDD Review) and the quality walkthrough above, we perform Customer Care calls to ensure that we met the SMC Standard throughout the lifecycle of the project. Immediately following is a copy of our Customer Satisfaction Survey; hopefully it will give you some appreciation for the types of things we feel are important.

**Customer Satisfaction Survey**  
Scale: 5 is great – 1 means “needs improvement”

1. We believe in 100% Customer Satisfaction Guarantee. Did we achieve this goal in providing our services to you?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
2. Was our quote or proposal you received clear and easy to understand?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
3. Did our quote/proposal accurately reflect the scope of work you defined/required?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
4. Did our scheduling of the project meet your time frame requirements?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
5. Was the installation team on time and fully prepared to begin work?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
6. Were our technicians professional and courteous to you and your internal customers?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
7. We believe good project management is critical to a project's success? How was our overall project management? Did we communicate with you effectively and adequately throughout the project?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
8. Did our technicians clean up their messes as they went? Were the premises left in the same or better condition than they were found?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
9. Did the finished product meet or exceed your expectations?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
10. Did our project leader do a final walkthrough with you to verify completion of the work to your satisfaction?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_
11. Have you received your documentation package? Was it complete to your satisfaction?  
 Yes       No. If Yes, Scale: 5 4 3 2 1      If No, Why: \_\_\_\_\_

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## 5 POST-INSTALLATION SUPPORT PROGRAM

To be proactive we have included a workflow process that we currently use with some of our other MAC customers that require a defined and consistent process for order processing, feedback and control. This process can be easily customized to meet the requirements of Virginia Commonwealth University.

### 5.1 Overview of the Process

SMC's approach assumes Virginia Commonwealth University requires centralized installation, and maintenance support services for its structured cable plant systems – including on-call remedial maintenance for existing voice/data cable plant, scheduled installations of new voice and data cable locations, the removal of existing cabling, and/or the repositioning of existing cabling to new locations. SMC will provide on-call remedial maintenance, scheduled installations and support services.

Of critical importance to this process is the establishment of a single point of contact for all Virginia Commonwealth University cabling requirements. This enables Virginia Commonwealth University to ensure centralized control over the infrastructure supporting the corporation. SMC provides a seamless, turnkey solution for service work, enabling to Virginia Commonwealth University contact the SMC Project Manager for all service and support requirements as well as status on ongoing projects.

In addition to the manufacturer's warranty, SMC is providing our Lifetime Craftsmanship Warranty for all work performed at the various locations. SMC's commitment to **100% Customer Satisfaction** ensures that the work will meet or exceed the requirements for every installation. We believe that our commitment to quality, industry certifications and the BICSI installation methodology enables us to supersede conventional warranties with our lifetime commitment to craftsmanship and our desire for a long-term relationship with our customer.

### 5.2 Process - General Approach

The following process has been prepared for Virginia Commonwealth University based on our knowledge of the organization. We have designed the process to allow the reader to easily and rapidly understand our technical approach, project management, methodology, implementation & support strategy, and proposed costs.

In designing Virginia Commonwealth University infrastructure support plan the following design goals were used.

- ▶ **Flexibility** – The process must be able to adapt to change, be configured in a way that meets the changing needs of the organization, and be scalable for expansion or contraction, as needs dictate. This process provides support for a high level of Moves/Adds/Changes (MAC's) without disruption to the existing cable infrastructure and supports a wide variety of media.
- ▶ **Management** – The process is designed to allow several different authorized personnel to request networking infrastructure services while ensuring consistent delivery and quality. This is accomplished by having SMC personnel that are



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designated to support Virginia Commonwealth University. This includes a designated systems engineer that works with the Virginia Commonwealth University representative to provide consistent engineering and pricing. Additionally, the project manager for the implementation teams will be centric to ensure consistency and minimize involvement during the installation process.

- ▶ **Implementation** – The Virginia Commonwealth University network implementation team must install and implement within defined implementation dates, schedules, and building environmental constraints. It is understood that these installations are to be conducted under very tight time constraints. The “cut dates” are firm, and SMC will have to supply any and all resources necessary to work in coordination with other trades to make the implementation successful and on time. A project plan will be provided once we have all of the pertinent dates for a project.
- ▶ **Reliability/Consistency** – The process is designed to ensure consistent delivery of infrastructure systems. The systems will be implemented in accordance with the guidelines established during the site surveys. All networking systems will be documented and tested in accordance with manufacturer, industry and Virginia Commonwealth University guidelines.

As you will see in this process, these are the design goals we hope to achieve.

## 5.3 Networking Infrastructure Services

### 5.3.1 On-Call Support Services

For purposes of this process we have categorized the onsite support services into three classes of service. The priority of each type of service requests will be determined based on the needs of the customer and the how critical it is to the operation. The service classes are as follows:

- ▶ *Repair/Maintenance Support* – Generally, this is a repair service, however the same process can be followed when addressing emergency request for new installations or MAC requests.
- ▶ *Scheduled Installations* – These are scheduled requests that generally require being completed within 5 business days of the request. Additionally, these requests can include projects that have a set due date that are not considered emergencies.
- ▶ *Non-Standard Installations (Design/Build)* – These are projects that fall outside of the definition defined as a Standard Installation. These include projects that require additional engineers, new SMC, or are larger in scope.

### 5.3.2 Communications/Interactions

The agreed primary mode of communications for requests for infrastructure support services for both voice and data services will be via email. The requesting party will email the SR (Service Request) to the email address provided by SMC ([VCU-](#)

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SR@SMCinc.biz). It is understood that phone communications for request for services are acceptable, assuming the request is followed up via email.

SMC will provide weekly or bi-weekly as-required status reports indicating the status of active projects, as well as which projects have been completed and any actions outstanding. On projects that are large enough or important enough, project status will be provided as required. A flow chart detailing the process and an organization chart of the support team and all contact numbers will be provided.

### **5.3.3 Scheduled Installations**

SMC will provide scheduled installations of voice and data cabling for standard drop types. A service request (SR) should be forwarded to SMC requesting the installation via email, at the dedicated e-mail address – VCU-SR@SMCinc.biz. Contained in the service request (SR) will be the task number, cost center, PO number where available, end-user information and a description of the requested service. SMC will schedule the installation to occur within 5 business days or the specified due date. *For installations requiring a scheduled installation in less than 5 business days, SMC will prioritize that installation to meet the Virginia Commonwealth University requirement.* If no due date is specified, SMC will schedule the installation to occur within the 5 business-day timeframe. Standard drop type installation may be requested verbally, with a confirming e-mail being sent at the earliest opportunity.

Upon receipt of the service request, SMC will enter the task into the tracking database, contact the end-user to confirm the scheduled installation and confirm to the requesting Virginia Commonwealth University support manager that the task is scheduled.

In most instances, Virginia Commonwealth University support personnel will have performed a site survey and will be able to confirm the location(s) to be installed and that the required infrastructure is in place to support the installation. Upon completion of the site surveys to create a baseline, SMC will work with Virginia Commonwealth University to develop a standard site survey form to help ensure that consistent information is collected for each SR.

Where required, quotes will be provided. Otherwise, the standard pricing defined in the pricing section will be used to set the budget expectations.

SMC will perform the scheduled task and provide documentation to the requesting support team to confirm the installation in accordance with the Virginia Commonwealth University Documentation standard. Test results will be provided via hard copy or e-mail. All tasks will be invoiced separately, noting the task request number (SR), cost center, end-user and tasks completed.

### **5.3.4 Non-Standard Installations (Design/Build)**

SMC will provide engineering support for installations requiring design service and an infrastructure that exceeds the standard unit pricing drop types. These installations may include closet build-outs, racks, patch panels, voice blocks, cable tray, ladder rack, as well as copper and/or fiber optic cable backbone systems.

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Each installation will be quoted separately with parts and labor identified. SMC will provide a certified, warranted installation for each of these installations unless otherwise noted.

Upon receipt of a request for a design/build installation, SMC will assign an engineer to develop a certified solution to meet the requirements stated in the service request. SMC will coordinate the design with the Virginia Commonwealth University support team to identify the existing infrastructure, determine the existence of sufficient backbone systems, categorize the end-user requirements and develop the bill of materials. A proposal detailing the scope of work, manufacturer's equipment, warranty and labor requirements will be presented for approval.

### **5.3.5 Repair/Maintenance Support**

SMC will respond to repair/ maintenance calls to test and repair the defective cabling. Upon receipt of a call for on-site maintenance, SMC will schedule and dispatch a field technician to respond to the request for support. SMC will respond to a call for repair service/maintenance within the timeframes specified by the Virginia Commonwealth University support team. **This response time may be same day service, 24x7, next business day, or a scheduled maintenance call.**

Information to be provided to schedule a call should include:

- ▶ Contact Information
- ▶ Contact Name
- ▶ Location/Address
- ▶ Phone Number/e-mail address
- ▶ Issue to be resolved
- ▶ Requested response time
- ▶ Required completion
- ▶ Existing Infrastructure (if known)
- ▶ Cost Center / PO number

SMC will coordinate the repair/maintenance call with Virginia Commonwealth University support personnel as required. In instances where data integrity is an issue, SMC will confirm that the technician is authorized to begin the repair with or without a Virginia Commonwealth University support team-member in attendance. The technician will complete the requested repair/maintenance, test and document the repair and submit the test results to the Virginia Commonwealth University support team to confirm the completion of the task.

SMC will provide a contact list, ensuring that Virginia Commonwealth University has the ability to report issues and schedule maintenance on a 24-hour basis unless specified otherwise. Where the opportunity exists, emailing the SR or emailing a description of the problem will act as a work order.

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All cabling systems will be tested in accordance with the Virginia Commonwealth University Voice and Data cabling standard.

## 6 WARRANTY

# Siemon Cabling System Warranty

### GLOBAL SIEMON SOLUTION 6™ CABLING SYSTEM WARRANTY

The Siemon Company ("Siemon") provides a 20 year system performance assurance and product Warranty for telecommunications cabling systems (the "Siemon Cabling System<sup>®</sup>" or "System/s") that utilize Siemon Category 6 Products and Solution 6™ Qualified Cable and are designed and installed by authorized Designers and Installers in accordance with Siemon Specifications.

1. **SYSTEM PERFORMANCE ASSURANCE AND PERFORMANCE GUARANTEES:**

A. **ASSURANCE:**

After the installation is complete, Siemon will review the registration documentation to determine conformity to Siemon Specifications. Upon such determination, Siemon will issue a Registration Certificate indicating acceptance of the System. Siemon warrants that such Systems shall perform to the applicable transmission performance requirements (the "Standards") based upon 100 ohm ( $\Omega$ ) unshielded copper (UTP) cabling, along with performance specifications for installed cabling set forth in Section 1.B. below for a period of 20 years from the date of completed installation. The Standards are as follows:

1. ANSI/TIA-568-C.0:2009, ANSI/TIA-568-C.1:2009, and ANSI/TIA-568-C.2:2009 and applicable addenda (category 6)
2. ISO/IEC 11801 Ed. 2.0: 2002, ISO/IEC 11801 Ed. 2.0, Amendment 1: 2008, and ISO/IEC 11801 Ed. 2.0, Amendment 2: 2010 (class E)
3. ISO/IEC 24764 Ed. 1.0: 2010 (class E)
4. CENELEC EN 50173-1: 2007 (class E)
5. (BS) EN 50173-1: 2007 (class E)
6. AS/NZS 3080: 2009 (class E)
7. CSA T568.1: 2005, CSA T568.2: 2005 and applicable addenda
8. JIS X5150: 2009 (class E)
9. Any existing and future applications approved by IEEE, ATM Forum, ANSI or ISO that specify compatibility with the type of cable installed, including applications developed for use on Gigabit Ethernet (1000BASE-T) and 155 Mb/s ATM, provided that the installed cabling does not exceed an application's specified length limitation

# Siemon Cabling System Warranty

## B. PERFORMANCE:

The channel performance guarantees at 100, 200, and 250 MHz are as follows:

Parameter	Performance Guarantees for Solution 6™ Channels			Guaranteed Margin <sup>1</sup> (1-250 MHz)
	Frequency (MHz)			
	100 MHz	200 MHz	250 MHz	
Insertion Loss	21.3 dB	31.5 dB	35.9 dB	0%
NEXT Loss	39.9 dB	34.8 dB	33.1 dB	0 dB
PSNEXT Loss	37.1 dB	31.9 dB	30.2 dB	0 dB
ACR-N	18.6 dB	3.3 dB	-2.8 dB	0 dB
PSACR-N	15.8 dB	0.4 dB	-5.7 dB	0 dB
ACRF	23.3 dB	17.2 dB	15.3 dB	0 dB
PSACRF	20.3 dB	14.2 dB	12.3 dB	0 dB
Return Loss	12.0 dB	9.0 dB	8.0 dB	0 dB
Propagation Delay	548 ns	547 ns	546 ns	0 ns
Delay Skew	50 ns	50 ns	50 ns	0 ns

<sup>1</sup> Guaranteed margin over ANSITIA-568-C.2 Category 6 and ISO/IEC 11801 Ed.2.0, Amendment 1: 2008 class E channel performance

Warranty performance claims are based on worst case testing and channel configurations. Typical channel performance may be significantly higher.

## 2. APPROVED PRODUCTS:

**A. NON-CONFORMING PRODUCTS:** Siemon warrants that each of its Category 6 Products and Solution 6 Qualified Cable are, at the time of delivery to the Customer, free from defects in materials and workmanship for a period of 20 years from the date of completed installation. Siemon shall, at its sole option, repair or replace any non-conforming Product, including the cost to reinstall such non-conforming Product. However, no warranty is made with respect to a Product if: (1) such Product has been repaired or altered in such a way as to affect the Product adversely; (2) such Product has been subjected to negligence, accident, misuse, abuse or improper storage; or (3) such Product was not installed in an accepted system and maintained in accordance with normal practice and in conformity with the requirements and published specifications of or designated by Siemon. A repair or replacement under this Warranty shall not extend the duration of this Warranty.

**B. APPROVED PRODUCTS:** To ensure Solution 6 UTP warranty compliance, Siemon requires the use of qualified Solution 6 UTP cable and category 6 rated Siemon Company connecting hardware and patch cords<sup>1</sup> including; trunking cable assemblies, cross-connect cords<sup>2</sup>, equipment cords<sup>2</sup>, and work area cords.

The following modular cord cabling implementations apply:

- 1) Minimum modular cord length is 1.0m (3 ft.)
- 2) For 4-connector models, minimum equipment and cross-connect cord lengths are 2.0m (7 ft.)

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# Siemon Cabling System Warranty

### 3. YOU CAN CHANGE YOUR SIEMON CABLING SYSTEM® DURING THE LIFE OF THIS WARRANTY:

Provided that any movements, additions, changes (MACs), or reductions to your System are undertaken by a Certified Installer or Maintainer in accordance with Siemon Specifications, you can change your System during the life of this Warranty and still be assured it will perform to the performance specifications detailed in this warranty. Failure to do so renders such MACs or reductions null and void under this Warranty. Siemon specifications require that the Certified Installer or Maintainer prepare and forward to Siemon a completed Siemon Cabling System® Change Registration Document subsequent to such administration for Siemon approval. Such approval is based upon a determination of conformity with Siemon Specifications. However, System changes that are made by way of terminated cable assemblies (i.e., modular patch cords) that do not require the use of tools or connector termination of any type may be performed by the customer without notice to Siemon provided that such changes are documented and implemented in accordance with Siemon Specifications and the Standards. *Any project with new cross connect facilities is considered a new project and must be registered as such.* You must use *Approved Products* (see Section 2.A) or have written authorization from Siemon to use any other products. Such other products are not covered by this Warranty nor are any system failures attributable to them.

### 4. CLAIM PROCEDURE:

**A.** Customer shall notify Siemon and the Certified Installer Company in writing, using the Customer Claim Form (available upon request), within a reasonable period of time from the discovery of any defect or of any claim whatsoever that the Customer may have with respect to the System or any Products delivered hereunder, and failure to give such notice shall constitute an unqualified acceptance and waiver of all claims with respect to the System and Products. Upon receipt of notice from the Customer of a non-conforming System or Product, Siemon may require that the Product be returned to Siemon's designated location. Any action or claim (whether in contract or tort, including negligence) must be commenced within one year after the cause of action accrued.

**B.** As a result of a warranty claim, Siemon or any authorized representative it so designates may inspect such System, the Product, or Customer's records relating to the System at Customer's location during reasonable business hours with 24 hours notice.

### 5. DEFINITIONS:

The term "*Certified Installer*" means an independent contractor who has been approved by Siemon to undertake certain work on Siemon Cabling Systems, such as the design, installation and/or administration of Siemon Systems. "*Certified Maintainer*" means an independent contractor or organization that has been approved by Siemon to undertake certain administration work on Siemon Systems.

The term "*Approved Product*" means Products used to connect and patch copper cabling and related cable management, which are supplied by Siemon. For a list of *Approved Products* for Solution 6™, please see *Approved Product* list in Section 2.A of this document.

The term "*Siemon Specifications*" means the Siemon Cabling System® Training Manual provided to independent *Certified Installers* and *Maintainers* which set forth the technical requirements for the design, installation, and administration of Siemon Cabling Systems and the use of Siemon Products, and any revisions thereto.

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# Siemon Cabling System Warranty

The term “telecommunications” shall mean any transmission, emission, or reception of signs, signals, writings, images, and sounds or information of any nature by copper cabling transmission systems.

The term “**Solution 6™ Qualified Cable**” shall mean any cable identified by Siemon as meeting the electrical requirements for use in this solution.

The term “System” means the registered horizontal cabling channel(s) (which extend from a floor distributor to a telecommunications outlet) as well as registered backbone cabling channel(s) (which extend from a floor distributor to a building distributor or a campus distributor). The System also includes jumpers, patch cords, equipment cables and work area cables. This System definition is intended to allow additional channels (horizontal and backbone) to become part of the registered System at a later date provided they conform to Siemon Specifications and are designed, installed and maintained by a Certified and Installer (or Maintainer). Any such additional cabling channels must be registered or this Warranty is inapplicable to such additional channels. In no event shall the addition of channels extend the duration of this Warranty.

The term “Permanent Link” shall mean the portion of the System that does not include patch cords, equipment cables or work area cables. As such, each Permanent Link is a subset of the System. Permanent Links are used for the purpose of testing and registering the System. When not configured as a complete System, Permanent Links are covered by the Product Warranty pursuant to Section 4 of this Warranty.

## 6. WHAT THIS LIMITED WARRANTY DOES NOT COVER:

This Warranty is exclusive and in lieu of all other warranties, whether express or implied, or statutory, including, not by way of limitation, any warranty of merchantability or fitness for a particular purpose. State law may vary the terms of this Warranty.

This Warranty does not cover damage occasioned by accidental or natural hazard, acts of god, or willful or negligent acts of others. In no event shall Siemon be liable for consequential or incidental damages of any kind including but not limited to any and all claims, expenses, damages, losses, liabilities and all amounts paid in defense or settlement of the foregoing (including attorney’s fees and expenses). Further, Siemon shall not be liable for any claims or damage arising out of or connected with this Warranty or the manufacture, sale, delivery, installation or use of any Products which exceed the purchase price of the Products and the installation.

NOTE: No assignment is valid unless agreed to in writing by Siemon.

### QUESTIONS - CALL OR WRITE US AT:

The Siemon Company  
Program Support Services  
101 Siemon Company Drive  
Watertown, CT 06795-0400  
(1) 800 365 2285  
[ciservices@siemon.com](mailto:ciservices@siemon.com)  
[www.siemon.com](http://www.siemon.com)





Amy Anthes, VCO, CUPO  
Senior Buyer  
Procurement Services  
Virginia Commonwealth University

**SMCiS Responses to questions via email dated 5/25/2017**

**Question:** Estimated time for response to request for quote?

**Answer:** SMCiS can typically provide a quote within 2-4 business days. Depends on the size and complexity. Small quotes can usually be quoted same day. Larger quotes can take longer.

**Question:** Estimated time for response from notice to proceed?

**Answer:** Most projects can begin within 5 business days. SMCiS has Siemon Products readily available through various local distributors with our Siemon CI Partner Program.

**Question:** Estimated time for completion?

**Answer:** For the two examples provided, the 2 CAT6 cable install would be less than one day. The 42 CAT6 cable install with fiber, closet build out, cable tray and WAP install would require approximately 2 weeks.

**Method of performance:** Please see the attached Business Proposal Presentation document for our complete method of performance, service request, project management and warranty.

**Bill of materials:**

Office Renovation – 2 cable install

MATERIAL DESCRIPTION	QTY	UM
Mohawk Cable #M57197 AdvanceNet, LIME GREEN, Category 6e+	300	Ft
Siemon Z6-20 ZMAX	2	Ea
Siemon MX6-F-20	2	Ea
Siemon MX- FP-S-04-20	2	Ea
Siemon MX-BL-20	2	Ea
Siemon #MC6-8-T-01-07 green	2	Ea
Siemon # MC6-8-T-10-02 white	1	Ea

Office Renovation – 42 Cable Install

MATERIAL DESCRIPTION	QTY	UM
Mohawk Cable #M57197 AdvanceNet, LIME GREEN, Category 6e+	5250	Ft
Siemon RS-07	1	Ea
Siemon MX-PNL-48	2	Ea
Siemon MX6-F-20	48	Ea
Siemon MX- FP-S-04-20	21	Ea
OCC RTC36B **	1	Ea
OCC #6112SMDLC 12	5	Ea
Siemon Pig Tails SM FP1B-LCUL-01	24	Ea
Siemon 9BB8P024G-E205A Single Mode	500	Ft
Siemon #MC6-8-T-01-07 green	48	Ea
Siemon # MC6-8-T-10-02 white	48	Ea
Misc Hardware	1	Lot

\*\* Order LC Coupler Panels separate for OCC LIU.

We thank you for the opportunity and look forward to working with you and your team in the near future.

Thank you

Mark Stahl, RTPM  
Business Development / Project Manager

  
SMC Infrastructure Solutions  
Structured Cabling | ISP | OSP | Audio Visual | DAS



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