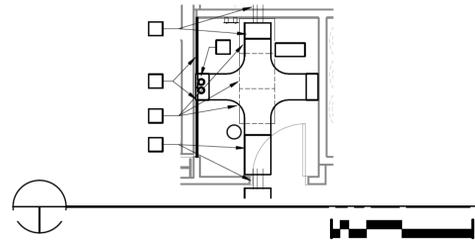
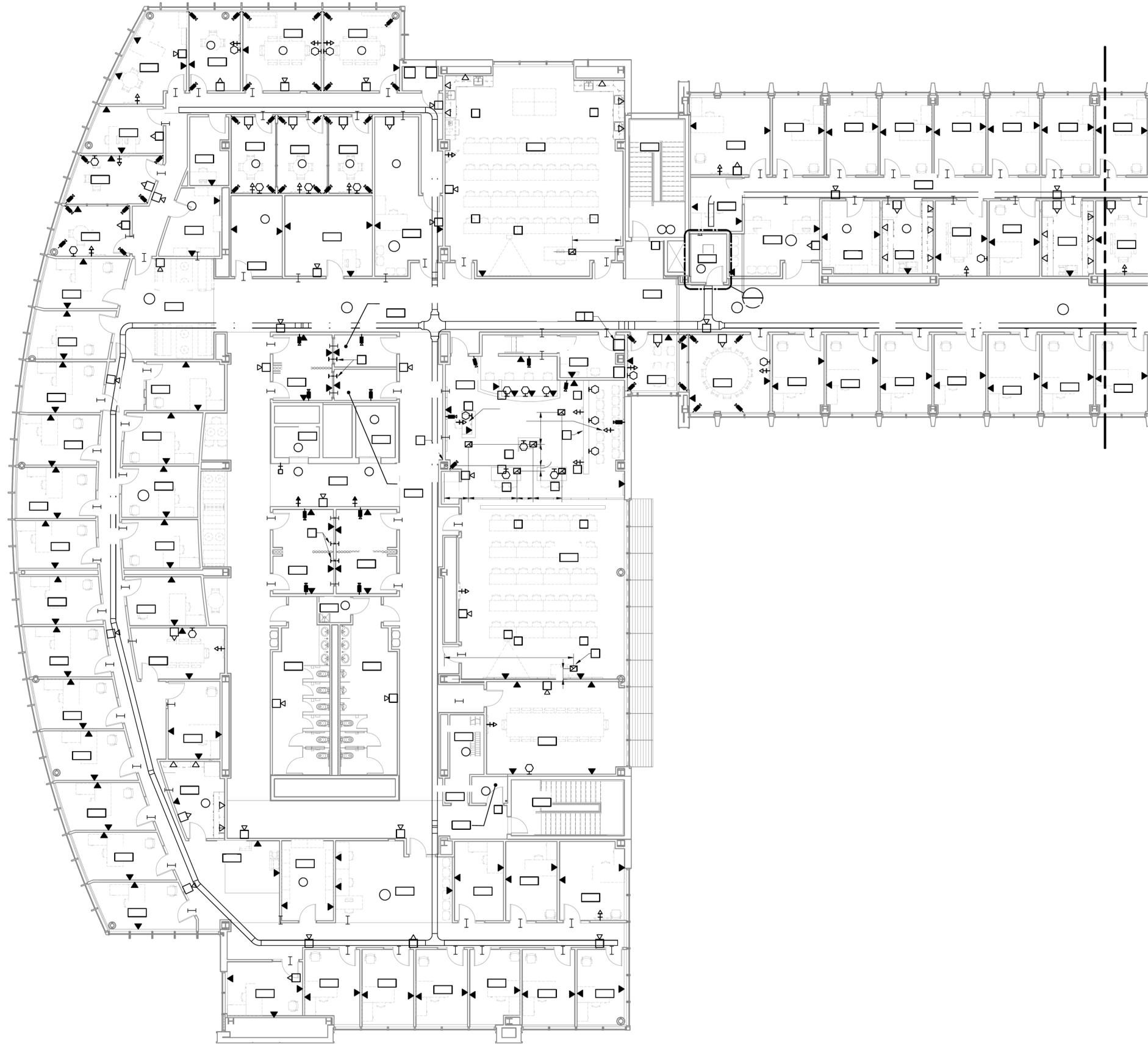


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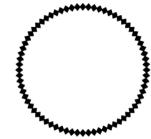
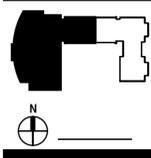


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NEW ACADEMIC BUILDING

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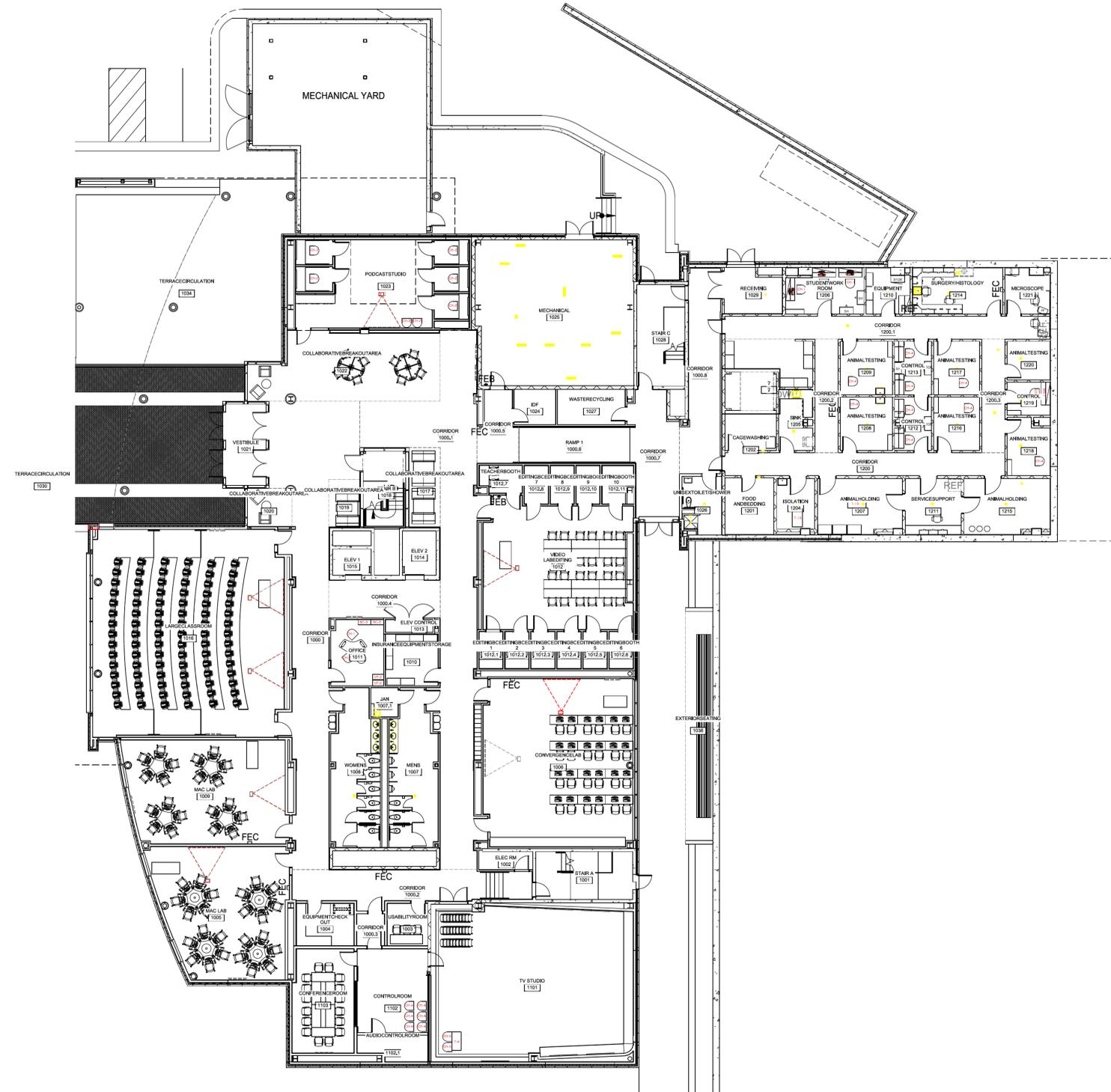


MOSELEYARCHITECTS

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ksainteriors
CREATE CHANGE
11331-A NUCKOLS ROAD
GLEN ALLEN, VIRGINIA 23059
OFFICE: 804-527-0131
KSAINTERIORS.COM



1 FIRST FLOOR FURNITURE PLAN
ID1 SCALE: NTS

RADFORD UNIVERSITY
COLLEGE OF HUMANITIES AND BEHAVIORAL SCIENCES
965 EAST MAIN STREET
RADFORD, VA 24142

PLT STAMP
6/4/2015 11:02:29 PM
FILE NAME
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JOB #
15009
DRAWN BY
K. CROY
REVIEWED BY
S. LASSETER

REVISIONS		
#	DATE	BY

APPROVED AS DRAWN & SPECIFIED BY:
NAME:
DATE:

SHEET: 1 OF 1

ID1

DATE: APRIL 3, 2015

ADDENDUM NO. 1 TO ALL OFFERORS:

Reference Request For Proposal Number:	R16-024
Commodity:	Networked Video Capture System
Dated	October 18, 2015
For Delivery To:	Radford University Agency, Commonwealth of Virginia 501 Stockton Street Radford, Virginia 24142
Proposal Due Date/Time:	No change to RFP Nov 4, 2015 up to and including 3:00 PM Eastern Standard Time

This Addendum contains questions and answers from the Pre-proposal Conference held October 8, 2015 plus several edits/clarifications to the RFP. The deadline for receipt of proposals remains unchanged.

RFP EDITS –

1. DELETE: RFP R16-024, Attachment B – Special Terms and Conditions, Item # 29 – Inspection of Job Site entirely. No site visit is planned or required to respond to RFP R16-024.
2. DELETE: RFP R16-024, Attachment J, both Floorplans and Furniture – Remove shading from Fifth Floor, Room 5213 (part of the CAPS suite). This room should not be shaded as it is not involved with the networked video capture system.
3. DELETE AND REPLACE: RFP R16-024, Attachment F – Statement of Needs, Item 4.2 to read: High definition video recording and playback along with high quality audio recording and playback.
4. DELETE AND REPLACE: RFP R16-024, Attachment F – Statement of Needs, Item 4.5 to read: Supports video and audio on/off recording controls initiated locally in each uniquely controlled room, initiated remotely from the observation room, and initiated by advance schedule. Describe what hardware will be installed in each room to achieve in-room on/off controls, how that interacts with remote and schedule on/off controls, how the proposed system provides assurance that individual room video and audio recording is disabled when desired to allow secure meetings.
5. ADD NEW: RFP R16-024, Attachment F – Statement of Needs, Item # 5.3 to read: Cameras should be Power Over Ethernet (POE).

PREPROPOSAL CONFERENCE QUESTIONS AND ANSWERS –

The numbers followed by “Q” are questions, and those followed by “A” are answers to those questions.

1Q – Please clarify the use of fixed and PTZ cameras as it relates to use of the system, live video, and remote viewing.

1A –The function and use of the spaces will impact camera placement and choices. Each offeror may propose where and how many of each type of camera they recommend based on the descriptions and drawings provided in RFP R16-024. Some spaces, especially larger spaces, may need more flexibility, so PTZ may provide more flexibility. Each offeror may propose multiple options within their proposal for consideration. Pricing should include unit pricing of each proposed camera.

The cameras will be used in the educational process. Students will conduct sessions and may view recordings. Faculty may view in the observation room or in their office, they may view live and view recordings, and they may enter feedback within the recordings.

2Q – *Could all rooms potentially have a live observer controlling the cameras?*

2A – Yes.

3Q – *Will the new system be incorporated into other systems?*

3A – No, at this time all cameras will be isolated from other systems, such as building surveillance. Mixing systems with different purposes could be problematic.

Note: A signed acknowledgement of this addendum must be received at the location indicated on the IFB either prior to the proposal due date and hour or attached to your proposal. Signature on this addendum does not substitute for your signature on the original proposal document. The original proposal document must be signed.

Respectfully,
Nancy Pressing

Phone: 540-831-5090
Fax: 540-831-5946
Email: npressing@radford.edu

Name of Firm:	
Signature:	Title:
Print Name:	
Date:	

ADDENDUM NO. 2 TO ALL OFFERORS:

Reference Request For Proposal Number:	R16-024
Commodity:	Networked Video Capture System
Dated	October 29, 2015
For Delivery To:	Radford University Agency, Commonwealth of Virginia 501 Stockton Street Radford, Virginia 24142
Proposal Due Date/Time:	No change to RFP Nov 4, 2015 up to and including 3:00 PM Eastern Standard Time

This Addendum contains questions and answers. The deadline for receipt of proposals remains unchanged.

QUESTIONS AND ANSWERS -

The numbers followed by "Q" are questions, and those followed by "A" are answers to those questions.

1Q - Attachment F, Section 3.4, "Allow Radford University to download all video if needed and store on another system", can the Authority provide additional data/clarity as to their expectations for this requirement?

1A - Attachment F, Section 3.4 - We want to know whether a proposed system will allow us to export video/audio, and if so in what format, should we need to migrate to another system in the future.

2Q - Attachment F, Section 8.1, "Describe compatibility of proposed system with potential client architecture, operating systems, databases, and other IT variables", we do not have enough information about the current architecture, operating systems, or databases to provide a clear and unambiguous response to this data call item. Can the Authority provide an overview of the systems to which our proposed systems will be compatible with?

2A - Attachment F, Section 8.1 - We want to know the environments in which a proposed system is functional and compatible. Radford University's environment may be different in many ways from other potential clients who could order under any resulting contract, so it's best to approach this response as describing the environments in which a proposed system is demonstrated to function rather than speaking only to the Radford University environment. That's why we did not describe only one environment, but left it open-ended.

3Q - Attachment G, Sections 6.4 - 6.7, 6.10 and 6.11, the questions described therein are at the discretion/needs/wants of the Authority, can you provide some clarity as to your needs/wants/wishes regarding these items?

3A - Attachment G, Section 6 - Since the system we seek will not be hosted, none of the Items in Section 6 are applicable. You may enter Not Applicable or N/A for those responses.

Note: A signed acknowledgement of this addendum must be received at the location indicated on the IFB either prior to the proposal due date and hour or attached to your proposal. Signature on this addendum does not substitute for your signature on the original proposal document. The original proposal document must be signed.

Respectfully,

Nancy Pressing

Phone: 540-831-5090

Fax: 540-831-5946

Email: npressing@radford.edu

Name of Firm:	
Signature:	Title:
Print Name:	
Date:	

Attachment B

MCW Solutions LLC Proposal to RFP # R16-024 Dated November 3, 2015



Networked Video Capture Systems Proposal Design-Build-Maintenance Services for

Radford University

Project Name: RFP R16-024_Networked Video
Capture System

Date: Nov-03-2015

Prepared for: Nancy Pressing
Radford University

Site Address: 801 E Main St.
Radford, VA 24142

Plan Set/Reference: Request for Proposal R16-024 Dated
October 1st, 2015

Prepared by: Jimmy Lindsey

Version: BIDQ3494

Presented by: Chase V. Fisher
703-726-1292 (direct)
CFisher@MCWSolutions.net



Table of Contents

Executive Statement.....	3
Referenced Bid/Proposal Documentation.....	5
MCW Scope of Work.....	6
Networked Video Capture System.....	6
Audiovisual Microphone Systems.....	9
Deliverables: Networked Video Capture System.....	14
Assumptions and Exclusions: Networked Video Capture System.....	15
Customer Responsibilities: Networked Video Capture System.....	16
Experience & Qualifications (RFP Section B.3.a).....	18
MCW Organizational Chart (RFP Section VI.B.3.b).....	19
Proposed Project Team & Key Management Personnel (RFP Section VI.B.3.c).....	19
Networked Video & Surveillance Project References (RFP Section B.4).....	22
Networked Video & Surveillance Client References (RFP Section B.4).....	24
Pricing and Acceptance.....	25
End-User Training.....	26
MCW Workmanship and Product Warranty.....	27
Service and Preventive Maintenance Support (RFP Attachment C & Special IT Terms and Conditions, and Attachment F).....	29
Terms and Conditions.....	34
Maintenance Terms of Service.....	36
Attachment A – RFP Inside Cover Page and Addenda Acknowledgements (RFP Section B.1), RFP_Attachments C, and IT Terms and Conditions_MCW Responses & Acknowledgements	
Attachment B – RFP Attachments F & I_Statement of Needs Table & Security Questions for Technology-Based Procurements (RFP Section B.2)	
Attachment C – MCW Proposed Price/Fee Structure (RFP Section B.5)	
Attachment D – Proof of Contractors Licensure and Insurance (RFP Attachment B.P)	
Attachment E_RFP Attachment D_Offerer Data Sheet & Attachment E_SWaM Utilization Plan	
Attachment F_Project Progression Schedule (Gannt Chart)	



Executive Statement

November 3, 2015

MCW Solutions, LLC is a privately held Audiovisual, Electronic Security, and Information Technologies firm. Established in 2003, MCW's steady growth pattern is indicative of our proven ability to propose and carry out comprehensive holistic solutions for managed IT, Network Infrastructure, electronic security & surveillance systems, visual applications - including managed video, automation and control systems provisions. MCW is headquartered in Ashburn, VA and also has a fully staffed office in Columbia, MD.

Our expertise over the past decade has been drawn from implementing hundreds of projects on time and on-budget. MCW prides itself on creating a strong relationship with our clients through a metered communication protocol and performance metrics controlled by Director-Level Personnel.

MCW utilizes its strategic partnerships with national vendors to provide superior support for a lower total cost of ownership for our clients. MCW is a Premier Cisco Partner, Microsoft Gold Partner and a certified reseller and integrator of Avigilon, Honeywell ITS, Lenel, Hirsch, GeuterBruck, DMP, Bosch, Pelco, Panasonic, CBORD, Dell, GE, and many more manufacturers.

MCW Technical Capabilities Relative to this Request for Proposal:

Electronic Security Engineering & Design
Needs Assessments
Systems Integration
Video Analytics and Testing
Training Programs

Custom Product Development
3rd Party Commissioning
Consulting / Color Team Reviews
On-site Service and Installations
Maintenance and Support

Electronic Security – What differentiates MCW from other security providers is our ability to design a solution that resolves our client's specific use cases and security challenges. MCW security helps protect your people, properties, and assets with comprehensive, IP-based access control, rules-based intrusion and video surveillance, and more. Critical analytics help you review and refine your security strategy. Depending on your needs, our custom solutions can be virtualized and integrated with third-party applications, network solutions, and enterprise-class storage systems (SAN and NAS).

From the early stages of the client partnership through the project completion and even during continued support via service agreements, MCW focuses on our client's needs. Our goal is to cultivate a long-term relationship with each of our clients. Our years of history and expertise allow us to purposefully plan, design, build, maintain, monitor, finance and even operate integrated security solutions and services for you - saving you time and money while allowing you to focus on your core business.

Our threat, vulnerability, and risk assessments are based on the same methodology we use to help federal government and military organizations identify and understand potential security threats. The assessment reports we generate recommend proactive and reactive measures to address our client use-case security threats. The diverse nature of our company allows us to present innovative solutions to challenges our clients may face. Our systems offer cutting edge, state of art security management solutions providing the most advanced technologies available for you and your organization.

MCW will work with the Radford University team members, Radford University, and other involved personnel as required to evaluate your product performance and infrastructure needs prior to finalizing the schematic and system design to ensure the end product encompasses the needs of the involved authorities. We identify requirements for a holistic, efficient, and cost-effective technology solution. Engineering personnel encompass the breadth of our corporate manpower, ensuring technologies proposed are functional and in line with the product and services delivered.

As a premier “systems-convergence” group, MCW has been a pioneer advocate for the development of best practices solutions that support the convergence of technologies that traditionally have been standalone; whether you require consultation, engineering and design, procurement and logistics, implementation and integration, or support, MCW has the organizational and manufacturer support to meet any project complexity or size-standard within the realms of our core competencies.

The company founders bring more than 50 years of experience in the industry. MCW strives each day to provide its clients with solutions that solve business problems on time and on budget and looks forward to challenge of supporting Morgan State University for years to come.

We have approximately 90 full time employees. We provide services in multiple states and entity types. We currently have our Secret Facility Clearance as well as a UL 2050-certified NOC, and listings on GSA Schedule 84. We have the ability to bond up to \$30 million with expanded capability beyond that threshold if necessary.

RFP Requisites:

Our VA Class A Contractors License No. is **2705094593**

Our VA SWaM Certification No. is **671121**

Our VA DCJS Certification No. is **11-3840**

MCW Acknowledges Addenda #1 Dated 10-18-2015

MCW Acknowledges Addenda #2 Dated 10-29-2015

Sincerely,

Chase V. Fisher
Business Development Executive
703-726-1292 (direct)
CFisher@MCWSolutions.net

~Total Convergence; Audio Visual, Communications, and Electronic Security Systems~

Referenced Bid/Proposal Documentation

MCW qualifies the proposed technical and/or price via reference of the following documentation:

Solicitation Documentation:

- Request for Proposal R16-024 Dated October 1st, 2015

Bid/Proposal Documentation:

- MCW Acknowledges Addenda #1 Dated 10-18-2015
- MCW Acknowledges Addenda #2 Dated 10-29-2015
- R16-024_CHBS_Floorplans
- R16-024_CHBS_Furniture
- RFP_R16-024_Addendum-1_WordDocs

MCW Scope of Work

Radford University's assigned MCW Engineering and Cost Management advocate, James Lindsey, has provided the following project specific bid considerations:

Networked Video Capture System

The following scope details the effort to provide IP megapixel, high resolution cameras for video capture with audio synchronization for routing and recording in the new College of Humanities and Behavioral Sciences (CHBS) building at Radford University. This scope details the solutions proposed by MCW to fulfill the requirement of RFP R16-024 of "controlled access video as an instructional and research tool allowing live observation or review of recordings as well as the ability to mark and add descriptions to specific points in the videos as feedback to students".

MCW proposes a total solution by Avigilon, to include video capture cameras, video server recorders, control interface equipment and Avigilon Control Center (ACC) system management software. ACC software (thick client) will be installed on each computer workstation (workstations furnished and installed [F/I] by others) within Observation/Supervisory Rooms as directed by Radford University officials. An ACC thin client is available for web browser-based viewing, or viewing via mobile device, as required. System access is login/password restricted so that each user is granted access only to the features, functions, and portions of the system to which they should have access, including live and recorded video viewing and editing.

Audio microphones will be connected to the cameras in each respective room and synchronized with the video cameras for live view and recorded playback. Please refer to the Audiovisual Microphones section for details regarding the audio components utilized for this project.

Conference Room 1103

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of the room as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the conference room table.
- Each camera will be ceiling mounted and connected to the head-end control equipment in Audio Control Room 1102.1 via Ethernet cable (furnished and installed [F/I] by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in Control Room 1102 as required.

Observation Room 3015 and Interview Room 3014

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Interview Room 3014 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Observation Room 3015 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Each camera will be ceiling mounted and routed down to the head-end control equipment in Audio Control Room 1102.1 via Ethernet cable (F/I by others). Conduit sleeve between floors is by others.
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in Observation Room 3015 as required.

Short/Long Term Data Rooms 4008, 4009, 4010, and 4011

- Eight (8) total 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Rooms 4008, 4009, 4010 and 4011 (two in each room), as indicated on the provided floorplan drawings, to provide video coverage as required within the rooms.
- Each camera will be wall or ceiling mounted and routed to the head-end control equipment in Education Lab Equipment Room 4021 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Data Collection Rooms 4004 and 4005

- Four (4) total 2MP (megapixel) mini-dome cameras will be installed in Data Collection Rooms 4004 and 4005 (two in each room), as indicated on the provided floorplan drawings, to provide video capture as required within the rooms.
- Each camera will be wall or ceiling mounted and routed to the head-end control equipment in Education Lab Equipment Room 4021 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Short/Long Term Data Collection Rooms 4035 and 4036

- Four (4) total 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Collection Rooms 4035 and 4036 (two in each room), as indicated on the provided floorplan drawings, to provide video capture as required within the rooms.
- Each camera will be wall or ceiling mounted and routed to the head-end control equipment in Education Lab Equipment Room 4021 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Group Therapy Rooms 5204 and 5206, and Assess Room 5208

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Group Therapy Room 5204 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Group Therapy Room 5206 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Three (3) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Assess Room 5208 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Each camera will be ceiling mounted and routed down to the head-end control equipment in DVR Closet 5202 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.
- Video and audio capture/recording in these rooms will be maintained according to HIPAA standards. MCW will coordinate with Radford University compliance officials to ensure compliance while achieving the required functionality.

Observation 1 Room 5207, and Assess Rooms 5209 and 5211

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Observation 1 Room 5207 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Assess Room 5209 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Assess Room 5211 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Each camera will be ceiling mounted and routed to the head-end control equipment in DVR Closet 5202 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in Observation 1 Room 5207 as required.
- Video and audio capture/recording in these rooms will be maintained according to HIPAA standards. MCW will coordinate with Radford University compliance officials to ensure compliance while achieving the required functionality.

Assess Room 5214, and Observation 2 Room 5216

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Assess Room 5214 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Observation 2 Room 5216 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Each camera will be ceiling mounted and routed to the head-end control equipment in DVR Closet 5202 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in Observation 2 Room 5209 as required.
- Video and audio capture/recording in these rooms will be maintained according to HIPAA standards. MCW will coordinate with Radford University compliance officials to ensure compliance while achieving the required functionality.

Short/Long Term Data Collection Rooms 5008, 5008.1, 5009, 5009.1 (Typical)

- Four (4) total 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Collection Rooms 5008 and 5009 (two in each room), as indicated on the provided floorplan drawings, to provide video capture as required within the rooms.
- Each camera will be wall or ceiling mounted and routed to the head-end control equipment in Judges Antechamber 5012.1 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Short/Long Term Data Collection Rooms 5016, 5017 and 5018

- One (1) 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Collection Room 5016, as indicated on the provided floorplan drawings, to provide video capture as required within the room.
- One (1) 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Collection Room 5017, as indicated on the provided floorplan drawings, to provide video capture as required within the room.

- Two (2) total 2MP (megapixel) mini-dome cameras will be installed in Short Term/Long Term Data Collection Room 5018, as indicated on the provided floorplan drawings, to provide video capture as required within the room.
- Each camera will be wall or ceiling mounted and routed to the head-end control equipment in Judges Antechamber 5012.1 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Observation Room 5022 and Interview Room 5024

- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Interview Room 5024 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Four (4) 2MP (megapixel) mini-dome cameras will be installed, one in each corner of Observation Room 5022 as indicated on the provided floorplan drawings, to provide video coverage of persons positioned around the table.
- Each camera will be ceiling mounted and routed to the head-end control equipment in Judges Antechamber 5012.1 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in Observation Room 5022 as required.

Mock Trial Room 5012

- Five (5) 2MP (megapixel) mini-dome cameras will be installed, as indicated on the provided floorplan drawings, to provide video coverage of persons positioned in various locations throughout the mock courtroom.
- Each camera will be wall or ceiling mounted and connected to the head-end control equipment in Judges Antechamber 5012.1 via Ethernet cable (F/I by others).
- Each camera will be positioned to achieve the optimal field-of-view. MCW will coordinate with Radford University to ensure that the appropriate field-of-views are captured.
- ACC software will be installed and configured on each workstation in locations/rooms TBD as required.

Audiovisual Microphone Systems

The following scope details the effort to provide high quality microphones for voice capture and routing in the new academic building at Radford University. The following scope details the solutions proposed by MCW to fulfill the requirement of voice capture for distribution to local security cameras, as part of a recording system, as well as local distribution within spaces designed for observation and collaboration.

Conference Room 1103

- An as yet unspecified audiovisual system is apparently intended for this room. This proposal assumes the audiovisual system will include sufficient installed microphones to cover the overall space or areas where speech must be captured. This minimizes the overall cost of the system by eliminating microphone redundancy as well as the equipment necessary to mix, route, and control the audio feed.
- The audiovisual system, not included in this proposal, must be designed to include sufficient microphones as well as a DSP device with one open output dedicated to provide a microphone mix routing to the security cameras for external recording.
- MCW shall provide a distribution amplifier to split the microphone mix output from the DP. This feed will be routed to a line level input on each of the security cameras in the room.
- The audiovisual system design should include a control system which includes the ability to mute the audio feed to the cameras when privacy is needed.

- The equipment dedicated to distribution of the voice mix shall be located in the audiovisual rack, provided by others, and a metal box located above the ceiling near the cameras.

Observation Room 3015 and Interview Room 3014

- A pressure zone boundary microphone, designed for conference, security, and surveillance applications, will be ceiling mounted in each room above the seating area.
- Each microphone feed will be split and a line level signal routed to the security cameras installed in the same room as the microphone.
- The audio from the microphone installed in 3014 may be played back over a recessed ceiling speaker in 3015. A wall mounted volume attenuator will provide level control to the speaker.
- An RF audio distribution package will be installed. It shall provide the means to route the microphone feed in 3015 to interviewers in 3014. The system utilizes an RF antenna and four belt pack receivers which may be worn by the interviewer(s) or other local participants. Each belt pack receiver includes a single ear bud.
- Two wall plates, each with a latching push button (or toggle), will be installed on the wall in 3015. Pushing either button activates routing of the microphone in 3015 to the RF system. Pushing the same button again will deactivate this feed.
- The primary equipment will be located in a wall-mounted rack in electrical closet 3003. The distribution amplifiers for routing microphone audio to the cameras will be installed in a metal box located above the ceiling in the general space.

4008, 4009, 4010, and 4011

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.
- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- Distribution equipment for each room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

4004 and 4005

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.
- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- Distribution equipment for each room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

4035 and 4036

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.
- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- Distribution equipment for each room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

5204, 5206, and 5208

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.

- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- Distribution equipment for each room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

Observation 5207 and Assess Rooms 5209 and 5211

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.
- An audio DSP mixer shall be utilized for source switching and routing.
- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- The audio from the microphone installed in either 5209 or 5211 may be played back over a recessed ceiling speaker in Observation Room 5207.
- A separate RF audio distribution package will be installed for rooms 5209 and 5211. Each shall provide the means to route the microphone feed in 5207 to interviewers in either 5209 or 5211. Each system utilizes an RF antenna and four belt pack receivers which may be worn by the interviewer(s) or other local participants. Each belt pack receiver includes a single ear bud.
- A small control system with a wireless 10 button keypad will be customized to allow participants in Observation Room 5207 to quickly and intuitively operate the following functions.
 - System on/off.
 - Activate/deactivate microphone in 5207 to RF distribution system for room 5209.
 - Activate/deactivate microphone in 5207 to RF distribution system for room 5211.
 - Selection of microphone in either 5209 or 52011 for routing to recessed ceiling speaker in 5207.
 - Volume up and down for recessed ceiling speaker in 5207.
 - Microphone mute for 5209.
 - Microphone mute for 5211.
- The primary equipment will be located in the security rack located in the closet adjacent to 5204. Distribution amplifiers feeding the cameras will be located in a small metal enclosure located above the finished ceiling in the general space.

Observation 5216 and Assess Room 5214

- A pressure zone boundary microphone will be ceiling mounted in each room above the seating area.
- An audio DSP mixer shall be utilized for source switching and routing.
- The microphone output in each room will be distributed to the security cameras installed in the same room as the microphone.
- The audio from the microphone installed in 5214 may be played back over a recessed ceiling speaker in Observation Room 5216.
- An RF audio distribution package will be installed to provide the means to route the microphone feed in 5216 to interviewers in 5214. The system utilizes an RF antenna and four belt pack receivers which may be worn by the interviewer(s) or other local participants. Each belt pack receiver includes a single ear bud.
- A small control system keypad will be customized to allow participants in Observation Room 5216 to quickly and intuitively operate the following functions.
 - Four button wall mounted keypad:
 - Speaker volume up/down.
 - System on/off.
 - Wireless two button keypad:
 - Activate/deactivate microphone in 5216 routing to RF belt packs.

5008, 5008.1, 5009, 5009.1 (Typical)

- A pressure zone boundary microphone, designed for conference, security, and surveillance applications, will be ceiling mounted in each room above the seating area.
- The microphone output in each room will be distributed to the security camera installed in the same room as the microphone.
- Distribution equipment for the room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

5016, 5017, 5018 North, 5018 South (Typical)

- A pressure zone boundary microphone, designed for conference, security, and surveillance applications, will be ceiling mounted in each room above the seating area.
- The microphone output in each room will be distributed to the security camera installed in the same room as the microphone.
- Distribution equipment for the room grouping shall be housed in a small metal enclosure located above the finished ceiling in the general space. The power supply shall be located externally at an outlet located within the space.

Observation Room 5022 and Interview Room 5024

- A pressure zone boundary microphone, designed for conference, security, and surveillance applications, will be ceiling mounted in each room above the seating area.
- Each microphone feed will be split and a line level signal routed to the security cameras installed in the same room as the microphone.
- The audio from the microphone installed in 5024 may be played back over a recessed ceiling speaker in 5022. A wall mounted volume attenuator will provide level control to the speaker.
- An RF audio distribution package will be installed. It shall provide the means to route the microphone feed in 5022 to interviewers in 5024. The system utilizes an RF antenna and four belt pack receivers which may be worn by the interviewer(s) or other local participants. Each belt pack receiver includes a single ear bud.
- Two wall plates, each with a latching push button (or toggle), will be installed on the wall in 3015. Pushing either button activates routing of the microphone in 5022 to the RF system. Pushing the same button again will deactivate this feed.
- The primary equipment will be located in the AV rack provided by others for the Mock Courtroom (Room 5012), or a small wall mounted rack located in this same space. The distribution amplifiers for routing microphone audio to the cameras will be installed in a metal box located above the ceiling in the general space.

Mock Trial 5012

- An as yet unspecified audiovisual system is apparently intended for this room. This proposal assumes the audiovisual system will include sufficient installed microphones to cover the overall space or areas where speech must be captured. This minimizes the overall cost of the system by eliminating microphone redundancy as well as the equipment necessary to mix, route, and control the audio feed.
- The audiovisual system, not included in this proposal, must be designed to include sufficient microphones as well as a DSP device with one open output dedicated to provide a microphone mix routing to the security cameras for external recording.
- MCW shall provide a distribution amplifier to split the microphone mix output from the DP. This feed will be routed to a line level input on each of the security cameras in the room.
- The audiovisual system design should include a control system which includes the ability to mute the audio feed to the cameras when privacy is needed.
- The equipment dedicated to distribution of the voice mix shall be located in the audiovisual rack, provided by others, and a metal box located above the ceiling near the cameras.

General Notes

- The specified boundary layer microphone is designed for security and surveillance applications. It is characterized by a consistent pickup anywhere around the mic. Low frequencies below the voice range are rolled off to reduce the pickup of heating, ventilation or air-conditioning rumble (HVAC noise). The high-frequency response is boosted slightly to aid clarity and articulation. It shall be ceiling or wall mounted in a single gang receptacle and features a white finish with an inconspicuous appearance. It features a maximum SPL of 120 dB with a signal to noise ratio of 68 dB-A.
- This proposal assumes microphone shall be installed in an acoustical tile ceiling, not to exceed 9 feet above the floor and located directly above a set seating area. Room characteristics must be designed to maximize voice intelligibility and minimize reverberation, sound ingress, and other factors that negatively affect the ability to successfully record events. Note that the room finish should also be designed to meet the ideal characteristics required by cameras, particularly the wall finish and lighting placement and color temperature. Less than ideal conditions will negatively affect the quality of the audio and video capture and dissemination as well as the overall user experience.
- Additional microphones may be added in any space if additional coverage is deemed necessary. This shall be accomplished via a change order.
- Audio levels from each microphone will be set to the best achievable level possible in terms of pickup and intelligibility, based on the structural and acoustical characteristics of the space. Microphone levels will not be adjustable by the end user, except where the microphone, DSP, and control system is provided by others, such as Conference Room 1103 and Mock Trial 5012.
- Power outlets for the equipment provided in this proposal must be provided by others.

Estimated Start Date: 1/29/2016

Estimated Finished Date: 3/29/2021 (Includes warranty and extended service and maintenance periods)

The schedule will be predicated on any related construction schedule and will be dictated by the flow of the other trades or in accordance with an agreed progression schedule. MCW will meet all milestones as projected or as the schedule requires. MCW will make a best effort in meeting all of the milestone dates even in the event of outside circumstances but under no circumstance will MCW be liable for any delays because of delays outside of our control.

Deliverables: Networked Video Capture System

MCW shall provide the following deliverables as part of our Design-Build-Maintenance services:

- Deliver and complete the Networked Video Capture system per the agreed statement of work (SOW).
 - System will be delivered and function as designed
 - The equipment necessary to provide a functioning system
 - Complete the Networked Video Capture system described in this contracted agreement
- Create an Networked Video Capture design showing all Networked Video Capture device locations, conduit, power, other infrastructure requirements, and device installation elevations and details. A complete signal flow diagram will be included for all provided systems, showing the connectivity of all signal, control, and communication wiring. Elevation details will show the layout of Networked Video Capture equipment at all racks, each device type, and typical system layouts. All custom products, system cabinetry, peripherals, and other items will be clearly specified. This package can be modified to include installation details as needed, cable runs, wire labels, connection details, and any modifications due to field conditions or by requests by a Networked Video Capture consultant or client. A submittal package will be provided after award for review.
- Plan and coordinate the installation crew scheduling and tasks. Prewire and infrastructure tasks will be scheduled as soon as is feasible, based on site conditions and the overall schedule. Installation of the electronic equipment must be carefully coordinated to ensure site conditions are appropriate, as the dirt and dust of general construction will reduce the overall life of this equipment and reduce the investment made by the client in Networked Video Capture technology.
- Assign a dedicated Project Manager and Foreman to coordinate site scheduling and installation with the Client's point of contact, the general contractor, and architect, to assure a logical installation flow progression. The Project Manager and or Foreman will also be responsible for:
 - Attending and/or calling in for the weekly construction meetings (if required)
 - Creating the installation schedule and milestones
 - Confirming the site conditions to meet the Networked Video Capture requirements
 - Providing timely reports detailing progress, concerns, issues, and any other details needed to ensure success of the project.
- Submit for any required fire and low voltage permits
- Order and stage Networked Video Capture equipment. Coordinate all custom items with the client where color finish, size, or other variables affect the final appearance. Equipment that requires coordination with other trades, will receive special attention in order to not cause delays or other problems in the schedule.
- Deliver and install the components of the Networked Video Capture system for each sub-system, as applicable. Each space should be clean and secure, with no major construction unfinished, prior to installation of all electronic components. Infrastructure provided by others must also be in place, correctly installed, and tested, where applicable. Terminate all cabling at each device for full and proper functionality.
- Program and configure the system. This statement does not include personnel databases or credentialing unless specified elsewhere in this proposal.
- Conduct a manual test of all system components, to the extent possible, to ascertain that all equipment and cabling is properly installed, working correctly, and completely connected for full functionality.
- Make note of any changes to the system drawings for creation of as-built system drawings
- Obtain signed Substantial Completion Acceptance Form from Owner or Owner's Agent
- Obtain signed Final Completion Acceptance Form from Owner or Owner's Agent
- Provide the following deliverable documentation:
 - One (1) electronic copy of As-Built drawings
 - One (1) electronic copy of manufacturer's manuals (O&M)
 - Warranty Letter
 - Final Equipment list
- Provide system training, described as such:

- MCW Solutions will provide a total of Two hours of formal training, which may be scheduled in Four hour blocks but on contiguous days.
- Training will be coordinated and scheduled as convenient for the client and MCW but within 90 days of final completion.

Assumptions and Exclusions: Networked Video Capture System

Assumptions

- This proposal includes the equipment, materials, and labor required to ensure a complete installation.
- It is understood that all infrastructure to support the video capture system, including Ethernet cable, conduit and other cable raceways and support structure, and floor-to-floor conduit sleeves will be furnished and installed by others.
- It is not, in every instance, evident by the provided bid documents which rooms are to monitor/supervisor which rooms. In some instances, where there is an Interview Room and Observation Room adjacent to each other, the correlation between the two rooms appears evident and is therefore assumed. In other cases, where the correlation is not evident, assistance will be required from Radford University staff prior to installation as to which rooms will be monitoring/supervising which rooms. Assumption was made for the purpose of this proposal that it is highly likely that some observation/supervisory rooms will need to have the ability to select which of several rooms they are monitoring/supervising.
- As a cost-savings measure, the cameras on the first and third levels are combined to connect to the same head-end location in Audio Control Room 1102.1. Therefore a conduit sleeve is required to be provided by others. Exact sleeve location may be determined following proposal acceptance and prior to installation commencement. The fourth and fifth levels are otherwise as depicted on the provided floorplan drawings.
- It is assumed that the fifth level rooms/areas shaded in green on the provided floorplan drawings are the rooms/areas subject to HIPAA regulations and standards. Furthermore, it is assumed that this is the same area described in Attachment F, section 1.1, as the Center for Assessment and Psychological Services (CAPS).
- Modifications to the attached list of equipment due to additional requirements of any type from any source including but not limited to: addendum's not listed above, other revisions or editions of any of the documents listed above, interpretation of fire codes, and changes requested by the Authority Having Jurisdiction; may, at the sole discretion of MCW Solutions, entail additional charges.
- This quotation is valid until 1/29/2016, unless otherwise noted.
- Prices include freight (UPS Ground), submittals, technical installer support (which includes testing & checkout) and a one-year warranty on all materials provided by MCW.
- Additional costs may be incurred if electronic copies of the CAD floorplan drawings are not available for use in the development of submittal documents. MCW Solutions is not responsible for costs associated with the procurement or production of Architectural CAD files.
- Returned material must be re-sellable, unopened in its original packaging. Any material or containers that are opened, defaced, or damaged cannot be returned to MCW Solutions. Restocking fees may apply for returned equipment.
- All MCW Solutions warranty work shall be performed during standard weekday office hours and shall not require any special access equipment.
- Unless already noted as included in this proposal, hoists, man-lifts, extra-long ladders, special safety equipment, and the like, shall be provided by others (or by MCW at additional cost) when required.
- Costs for permits and are included.
- Client shall sign the substantial completion and final completion forms. Substantial completion notes the phase of the project whereby the client has gained beneficial use of the newly installed equipment. Day to day functions and the ability to carry out business is not impacted by any punch list items detailed in the signed and agreed to form. The beginning of the warranty period begins on the date of signed Substantial Completion.
- All requests from either party should be made in writing and submitted to the appropriate point-of-contact. If the requested change alters the base contract amount, MCW will prepare a Change Order describing the requested change and the Dollar amount of the change. Upon authorization, MCW will perform the work.

- Where a change is requested in the field by your point-of-contact, the MCW Lead technician and or Foreman will prepare a Field Change Order describing the requested change. An authorized signature must be obtained before work can be done. A copy will be given to your point-of-contact and MCW will price the change and include the amount as an adjustment to the base contract. MCW will inform you as to the amount of the change.
- The agreed to schedule in this proposal does not include overtime charges. Should this schedule be changed due to actions unrelated to MCW's actions, a change order will be submitted to cover these additional costs. This time will be documented.
- Note that the construction schedule impacts the Networked Video Capture installation schedule. While some tasks, such as cable pre-wire and some equipment rough-ins, can take place during construction, the majority of the Networked Video Capture install requires a dust-free, painted and air conditioned site in order for MCW Solutions to complete the equipment installation and integration phase of this Scope of Work. The Networked Video Capture installation will start after most of the construction work is complete in order to protect sensitive and costly optics and electronics that must be kept clean and free of dust during installation. Installation of Networked Video Capture systems may be delayed by any known or unforeseen construction delays.
- If the schedule agreed to in this scope is accelerated necessitating expedited shipping charges required by equipment manufacturers and vendors, a change order will be submitted to cover the additional costs.

Exclusions

- Network connectivity at MCW-specified locations, as required
- Static IP addresses, along with subnet and gateway designations, as required
- Wall space with fire-rated plywood for new equipment and/or equipment racks, as required
- 120 VAC, 20 amp outlets, on emergency power backup system, at MCW-specified locations, as required
- Building-wide UPS, generator, or other power backup system, as required
- Conduit raceways or cable trays for wire, core drilling, roof penetration, terminal cabinets, and/or electric boxes at MCW-specified locations, as required
- Computer servers and workstations, including extended storage and backup systems, unless otherwise noted and/or included in the bill of materials.

Customer Responsibilities: Networked Video Capture System

Customer, client or owner's agent shall:

- Provide Network connectivity, Static IP Addresses, along with subnet and gateway designations at MCW-specified locations
- Provide wall space with fire-rated plywood for new equipment and/or equipment racks
- Provide 120 VAC, 20 amp outlets, on emergency power backup system, at MCW-specified locations
- Provide building-wide UPS, generator, or other power backup system
- Provide all conduit, J-boxes, cable trays, core drills, cable, plates and panels, enclosures, floor boxes, power circuits, power cable and power connections. All conduit and core drills must meet the Networked Video Capture system consultant's and/or MCW's requirements and be verified by MCW in order for the proper infrastructure to be installed. Deviations and incorrect conduit sizing may demand equipment changes and result in a change order.
- Pre-wire site as shown on Networked Video Capture drawings. Prewire shall include all cabling shown on the Networked Video Capture signal flow diagrams, except similar infrastructure cabling that is provided by others. All cables will be uniquely labeled within the system, to include device ID, output and input numbers, and signal type.
- Computer servers and workstations, including extended storage and backup systems, unless otherwise noted and/or included in this proposal or the supplied Bill of Materials.
- Cutting, drilling, patching or painting (fire caulking will be included for cable/conduit penetrations through fire-rated walls as required)
- Provide any painting or patching of walls, ceiling tile finishing work, and other related work around the Networked Video Capture wall plates, equipment, cameras, and MCW provided peripheral components.
- Interface with equipment not provided by MCW Solutions (examples: HVAC and Elevator)

- Client shall provide (prior to project start) existing client-furnished equipment in good working order for integration into the Networked Video Capture system and accept full responsibility for all client-furnished equipment (CFE). These responsibilities include, but are not limited to: Integration issues, functionality issues, and compatibility issues. CFE furnished equipment shall be tested prior to implementation.
 - All repairs and replacement of the CFE equipment will be serviced on a time and material basis
 - All discontinued equipment will be replaced with updated and current technology
 - MCW will not bear responsibility for the condition and operation of any CFE gear required by the end user to be integrated into the new system, whether or not if said equipment was tested and validated to be in working order prior to the beginning of the installation.

Experience & Qualifications (RFP Section B.3.a)

MCW understands the importance of discipline competent folks reviewing, quantifying, and qualifying the engineering solutions presented to us for quote. Our engineers have the ability to design a solution that has the ability to meet Radford University's requirements and also provides a cost effective and reliable solution to meet today's standards of performance with ease of use.

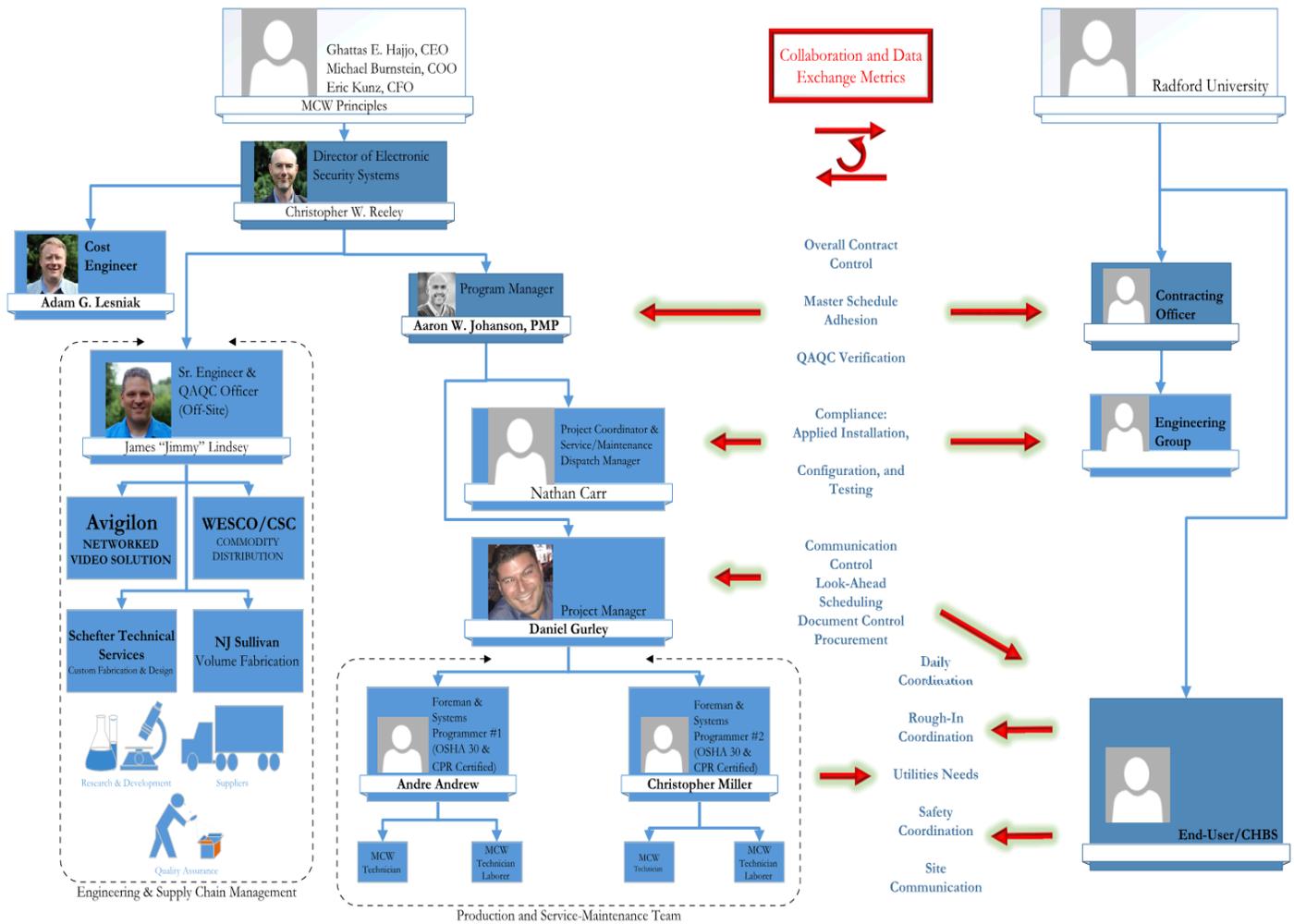
Our expertise over the past decade has been drawn from implementing hundreds of projects on time and on-budget. MCW prides itself on creating a strong relationship with General Contractors and/or our clients. We are comfortable contracting directly with our clients or under the General Contractor's wing.

MCW has built a proven best practice methodology based on the following core principles:

- Needs Analysis
- Technical Expertise
- Implementation Excellence
- Customer Service and Support (CS&S)

1. **Needs Analysis** - MCW's Professional Services practice developed and utilizes a proven process in which all three distinct phases within a project life cycle, Initiation, Execution, and Completion are taken into consideration and contemplated. Within these phases there are certain steps that are followed to ensure projects are delivered with quality, on time, on budget, and with no surprises. Our methodology defines a framework and process using checklists templates, and project models built on best practices. We leverage an iterative approach where we start at a business problem level, work through a functional level and then a feature phase and ultimately end with a workable and comprehensive solution.
2. **Technical Expertise** - MCW is certified by, or employs individuals with a litany of Electronic Security and Life Safety Regulatory Organizations and Commissions to include the Virginia Department of Criminal Justice Services (DCJS), National Institute of Certified Engineering Technologists (NICET), BICSI, Associated Builders and Contractors (ABC), Microsoft, and many more. Several of our technical staff have taken and passed numerous standards based test developed to demonstrate Electronic Security and Life Safety Systems technical competency and proficiency. MCW is committed to providing our client with the highest level of technical expertise that the industry has to offer.
3. **Implementation Excellence** - Our project engineering and project management staff coordinates with your facilities staff and construction trades to ensure an accurate and smooth solution implementation. We leverage our iterative best practice methodology for a proven and smooth implementation.
4. **Customer Service and Support (CS&S)** - MCW provides its clients with unparalleled support and maintenance options. The best designed systems are worthless unless they are properly maintained and supported. MCW offers a number of on-site support programs which can be seen in depth within the Warranty and Support section of this proposal.

MCW Organizational Chart (RFP Section VI.B.3.b)



Proposed Project Team & Key Management Personnel (RFP Section VI.B.3.c)

Christopher Reeley - Director of Electronic Security & Surveillance

Mr. Reeley has over 23 years experience in Electronic Security Systems. Mr. Reeley started his Electronic Security career as a technician so he truly understands how these systems are comprised and is a valuable resource to the technical team. Mr. Reeley has experience with many different security programs including Avigilon, Identocard’s PremiSys, IdentiPass, AMAG SMS, Lenel, Honeywell (all lines), Hirsch, RS2, S2, Pelco, Exacq, Arecont, Panasonic, etc. He is extremely knowledgeable about door hardware. His responsibilities at MCW Solutions is to run the Electronic Security Division. In this capacity, he often collaborates with potential clients regarding system design, assists the sales team in coordinating with owners, oversees the estimating department, consults technically as needed on projects, evaluates new products to include in our offerings, coordinates the installation department, oversees the security service department, over sees department workflow. Some notable projects Mr. Reeley has been responsible for include:

- Federal Bureau of Prisons
 - ESS Systems Upgrades & Additions
- USPS Brentwood
- County of Loudoun
- Reston Hospital
- Loudoun Hospital
- Department of Defense
- Office of Personnel Management
- Carpathia Data Center
- Advantage SCI

Mr. James “Jimmy” Lindsey - Security Engineer

Mr. Lindsey has over 12 years of experience installing, designing, consulting, surveying, and negotiating the sale of electronic security and life safety systems. He is proficient in performing on-site surveys for security vulnerability, risk analysis, and system designs. He is specifically competent in designing electronic security systems including access control, video surveillance, intrusion detection, and life safety solutions. Mr. Lindsey has experience with integrated and intelligent system solutions, enterprise and global applications, network and Fiber-Optic systems support, and customized solutions for various commercial, industrial and government clients. His specific market experience includes federal and local government agencies, educational institutions, critical infrastructure facilities, chemical and biological research and production plants, food and pharmaceutical research and production complexes, health care and medical research facilities, commercial and residential buildings and corporate offices. He has provided security system solution consulting and design services for, and negotiated sales to, federal government clients including the DOD, USACE, GSA, DHS, DOC, DOJ and the FAA. A sampling of Mr. Lindsey’s security design project experience includes:

- Smithsonian Institution, National Zoo Modernization, Washington, DC
- U.S. Army Corps of Engineers (USACE), Public Health Command (PHC) Laboratory, Edgewood at Aberdeen, MD
- North Carolina State University, Raleigh, NC
- Glatfelter Paper Mill, Spring Grove, PA
- Federal Aviation Administration (FAA)
- Avalon Bay Multi-Dwelling Units
- SB Urban

Joshua “Josh” VanTassel - Installation Manager / Project Engineer

Mr. VanTassel has over 10 years of experience in Electronic Security Systems. Mr. VanTassel, an award winning veteran, has honed his skills in electronic security through hard work and dedication to his positions. Mr. VanTassel holds many manufacturer certifications including Avigilon, Verint Nextiva, Identicard PremiSys, Nice Vision, Pelco, Sight Logix, AMAG, S2, and CNL-IP Security Center. His responsibilities at MCW Solutions are to oversee all field operations. Mr. VanTassel provides support on the design, procurement, implementation, and integration of electronic security systems. Duties include the compilation of project documentation, RFI’s, RFQ’s, change orders, etc. Mr. VanTassel oversees the installation of systems and is responsible for the satisfactory programming and training of the customer. He manages the installation teams and is responsible for their scheduling to ensure each and every project stays on schedule. Mr. VanTassel does an exemplary job of coordinating with the field supervisors and vendors to ensure proper coordination is achieved. Some notable projects Mr. VanTassel has been responsible for include:

- Carpathia Data Center
- Capital Area Food Bank
- City of Manassas Airport
- Camden Living
- Millcreek – MCRT Trust
- Wardman
- DC Government & Public Schools
- BAE Systems
- Morgan State University
- VA Ports Authority
- GA Ports
- Port of Freeport
- City of Camden

Aaron W. Johanson, PMP & Sr. Project Manager

Mr. Johanson’s resume boasts a degree in Economics from University of Maryland and certification from the Project Management Institute in the Project Management Professional curricula. Mr. Johanson has over a decade of experience in the Project Management discipline. With a proven record of excellence in preparing and performing projects of varying size, complexity and technical discipline, Mr. Johanson is an invaluable asset to the Operations and Corporate structure of MCW. His responsibilities include management of assigned projects as well as oversight of the Project Management team, regardless of discipline. He is a fluid and efficient user of a multitude of scheduling and accounting software such as Primavera Contract Manager, Primavera P6, MS Project, Sage, Prologue, and ProCore. Mr. Johanson also functions as the Sr. Safety/OSHA Compliance Officer and has written company safety policies for a number of integrators, including MCW. He is an expert in the discipline of Project Management; his industrious and efficient nature thrives on challenges and makes for a professional comfortable with change, even in complex dynamic environments requiring constant prioritization while weighting business and technical requirements.

**Daniel Gurley – Project Manager**

Mr. Gurley has over a decade of Project Management experience in the technologies industry. As a former systems design engineer, Mr. Gurley is an adept manager of complex and large volumes of data, has a fluid ability to site, manage, and ensure risk mitigation factors of changing project conditions and performance schedules are carried out in methods best suited for client needs. He's administered multiple cost-loaded enterprise scheduling platforms and assisted in the development of all phases of project and program efforts. His sharp mind is very meticulous in nature, but his efficiency, responsiveness, and natural energy does not allow this to slow him down.

Jeremy C. Dean – Senior Installation Manager, Journeyman Electrician

A proven asset to the company, Jeremy Dean is a knowledgeable and experienced Senior Installation Manager whose performance consistency, dedication to best practices, leadership, and taking responsibility for his assignments is indicative of his nature. Enhancing the company's overall production - his professional skill set, dedication and customer relations have led to long term client retention.

Mr. Dean has been exposed to many trade disciplines and activities; Electrician, NICET Certified Fire Alarm Technologist, project cost control, building efficiency, performance of on the job training, coordinating implementation, enforcing safety policy and procedures, positive workforce moral and customer/employee relations. Mr. Dean's work experience ranges from small to large scale projects, supervision and installation of Electrical, Intercommunications, Structured Cabling, Access Control, CCTV, Detection-Intrusion, Chemical Protection and Fire Alarm.

Mr. Dean graduated from the College of Southern Maryland and has professional credentials and licenses with various programs including: WMATA, Honeywell, EST 3, NICET and many more.

Nathan Carr – Service Dispatch Manager

Mr. Carr comes with a 14 year history in electronic security systems and integrations. His career rests upon a foundation created by my time serving in the United States Navy as an Electronics Technician maintaining communications and radar systems. Prior to my joining MCW Solutions, I worked with a local service management entity as the Commercial Installation Manager. My role as the Service Manager at MCW Solutions focuses on customer service and satisfaction.

Scott Miller, Sr. CAD Draftsman

Scott Miller has drafted in the electronic security, audiovisual and telecom for more than 5 years. He creates a professional drawing standard to portray the engineers design. Scott is studying to be a civil engineer, providing an excellent foundation for the details and efficiency needed for a complete design package. As a draftsman, Scott is responsible for creating standards, templates, and guidelines to better the drafting and drawing results extended MCW clientele.



Networked Video & Surveillance Project References (RFP Section B.4)

Please reference below and MCW Response Attachment E for past performance and project reference compliance data found on the RFP Attachment D_Offerer Data Sheet.

Athletics Practice Field with Game Preparation Audio/Visual System and Control Room Enhancement.

Client: Virginia Polytechnic State University

Technical Disciplines: Turnkey - Audio/Visual, Tele-Data, and IT

Contact: Tom Booth, Director of Athletics Audio/Visual Programs, TBooth@VT.edu, 540-231-9990

Project Description: MCW was contracted by the University to provide design, logistics, installation, commissioning, and on-going maintenance services. The game preparation system is composed of a variety of system components to include television broadcast-quality Ultra-HD Cameras, stadium-quality speakers, broadcasting-type camera controllers, dedicated Fiber-Optic and copper cabling backbone, Coaches Wireless Microphone System, and Wireless Access Point Network. The game preparation system provides broadcast students with professional grade video controllers and audio systems on which to learn how professional broadcasting entities perform athletics recording and live camera functional controls and programming. Student athletes and coaching staff have been provided with a system that will enhance athletics performance through the ability to review athletes' practices and mimic indoor stadium noise levels. A system composed of six (6) broadcast-quality Pan-Tilt-Zoom cameras are mounted at optimal aerial positions to provide views of the entire field. A sound system composed of high-end stadium speaker arrays provides a sound quality and volume-level that can mimic those found within indoor sports arenas to allow athletes the ability to practice communication and situational awareness during game-like situations. The system includes a Wireless headphone system that will function in a multitude of ways, to include coaches' ability to communicate with their student-athletes and coaching staff during game preparation sessions, or for use by faculty and the student body when using the system for boosters events, celebrations, or gatherings in general. A Wireless Access Point network has been provided to allow any networked and authorized device the ability to control the audiovisual components connected to the network; that includes the hand-held recorders and viewers provided the university that allows a user the ability to instantaneously view and replay activities on the field. An ISP/OSP Fiber-Optic Cabling backbone was installed between the existing audiovisual control room and the Audiovisual Communication Equipment Room within the new facility. This backbone provides for seamless systems signal transmission for viewing and control of the PTZ Camera System. The existing controller room space had limited structural rework performed to accommodate the video controllers and provide for additional workstation space for athletics audiovisual personnel.

Woodrow Wilson High School

Contact: Jason Clurman (VP), Heller Electrical Company, 301-372-6816, jason@hellerelectric.com

Location: 3950 Chesapeake St. NW, Washington D.C. 20016

Start/End Date of Project Example: FY 2012

Brief Project Overview: Turn-Key Design, Build, and On-going Maintenance Services providing an extensive Audiovisual System throughout the facility. Project included Physical IP Layer of Structured Cabling and Fiber, Complete Fit-out of multiple IDF Closets complete with OSP Fiber Optic Backbone between each, Dozens of classrooms with Cisco WAP Systems, Public Address System throughout facility with integration to clock and bell systems, entire schools worth of classrooms with LCD Monitors and Projectors and customized syllabus development tools integrated to the classroom media systems, Media Control Room allowing manipulation and control of all classroom media systems, Classroom Audio Recording. Project included Main and Auxiliary gymnasiums and athletic field audio reinforcement systems within each area with local inputs, equipment racks – gear loaded – and loudspeaker systems. Fitness rooms with local audio reinforcement and playback systems with ceiling mounted flat panel displays and IPTV Tuners and source decking and integration to school's PA System. MCW custom designed and installed the Athletic Field Press Box and integrated and migrated legacy announcement equipment from the existing building's interior.



Ultimately, the technology package was completed on-time and on-budget allowing the school to move back into their fully renovated home on the first day of school in the fall of 2011. It was a great honor and privilege to work on a project that operated so smoothly and has the potential to effect positively on the local community.

MCW was awarded a Washington Building Congress (WBC) award for design and installation excellence for the Woodrow Wilson High School project.

BAE Systems

Contact: Tony Wooster

Phone: 703.642.2918

Email: Tony.Wooster@BAEsystems.com

Project Value: \$170,851.26

Start/end date: December 2012 through March 2013 plus support and change orders. Estimated completion date: March 2013.

MCW Solutions was retained to provide system upgrades for five (5) of their mid-Atlantic sites including the Reston, McLean, Herndon, Annapolis MD, and McLaren sites. BAE had an end of life product at these sites and MCW Solutions came in to upgrade the systems to the newer PremiSys platform. In addition to the access control work at these sites, MCW facilitated the systems at the Reston and Annapolis SCIF areas. The McLean and Herndon sites also received some CCTV upgrades. The McLean site was upgraded during a renovation of their offices on the 5th and 12th floors. MCW Solutions was responsible for all aspects of the upgrade, from planning and coordination to project installation, programming, training on the new system, and final turnover. MCW Solutions currently is responsible for the maintenance of their system on an as-needed basis.

Edge Connex

Contact: Lance Devin

Phone: 571.441.1340

Email: ldevin@edgeconnex.com

Project Value: \$457,313.30

Start/end date: September 2014 through Present. Estimated completion date: 14 Projects Completed to Date - Ongoing.

MCW was retained to provide retrofitting of Twenty-Two (22) Data Processing Centers throughout the continental United States. Our scope of services are to migrate all of Edge Connex' existing Integrated Security Systems from a legacy manufacturer to an S2 Platform. The security disciplines being migrated include Access Control, Intrusion Detection, Surveillance System (including Video Management System), Commodities installation, and overall networking and IT configuration and equipment provisions. MCW Solutions was responsible for all aspects of the upgrade, from planning and coordination to project installation, programming, training on the new system, and final turnover. MCW Solutions currently is responsible for the maintenance of their system on an as-needed basis.

Carpathia

Contact: Mike Clemson

Phone: 703.840.3900

Email: mclemson@carpathia.com

Project Value: \$568,315.00

Start/end date: April 2013 through present. Completion date: August 2013.

MCW Solutions was retained to provide a new security management system for the new data center. This new data center has been constructed so that it is connected to the existing data center. A new security management system was implemented for this new data center including biometric readers, card readers, CCTV coverage, and intrusion alarm coverage. System expansion is constantly underway.



Networked Video & Surveillance Client References (RFP Section B.4)

Neustar

Contact: Bryan Carter
Phone: 571.434.5436
Email: bryan.carter@neustar.biz

BAE Systems Information Technology

Contact: Patric Toler
Phone: 703.345.4967
Email: Patric.Toler@baesystems.com

Capital Area Food Bank

Contact: Dan Shenk-Evans, Director of Information Technology
Phone: 202.526.5344, ext. 300
Email: DShenkEvans@capitalareafoodbank.org

Camden Living

Contact: Mark Bucci
Phone: 703.556.5757
Email: mbucci@camdenliving.com

Reston Hospital

Contact: David Range
Phone: 703.689.9099

Email: walter.range@hcahealthcare.com

Carpathia

Contact: Mike Clemson
Phone: 703.652.5987
Email: mclemson@carpathia.com

Infoblox Federal

Point of Contact Name: Angela Porter
Project General Location or Specific Address:
Herndon VA
POC E-Mail: aporter@infoblox.com
POC Telephone: 443-926-7044

Washington National Cathedral

Contact: John Doucette, Captain, Police Operations
Phone: (202)537-6271
Email: JDoucette@cathedral.org

Goodwin House, Inc.

Contact: James Hicks, Director of Facilities Operations
Phone: (703)578-7500
Email: jhicks@goodwinhouse.org

National Association for the Education of Young

Contact: Bill Melton, Building Manager
Phone: (202) 232-8777
Email: wmelton@naeyc.org



Pricing and Acceptance

Please review the Scope of Work for accuracy, and if you agree with the terms, please sign this document and return to my attention, keeping a copy for your records. If you disagree please contact me immediately. Once signed, this letter will serve as the whole agreement for the work described above. In the event of any inconsistency between this letter and a purchase order or sub-contract, this letter will prevail unless otherwise agreed in writing by both parties.

MCW Solution’s price for the described Networked Video Capture System and/or Design-Build-Maintenance services:

Applicable Taxes	Exempt
Total Contract Amount (Including Warranty Year)	\$287,029.75
Service & Maintenance Support - Year 2 (after initial warranty period)	\$13,034.98
Service & Maintenance Support - Year 3	\$13,491.20
Service & Maintenance Support - Year 4	\$13,963.39
Service & Maintenance Support - Year 4	\$14,452.11

Payment is required in accordance with the Terms and Conditions; included below as part of this response to Request for Proposal. MCW has determined this project to be one requiring Government type billing and payment terms.

Government

Payment Schedule	Bill Amount	Approximate Due Date
Deposit	0%	Proposal Execution or Purchase Order
Progress Payments	Monthly Invoicing	Net 30
Substantial Completion	10%	Net 30
Final Payment	Balance/10%	Net 30

Sales tax is NOT included in the total shown above. This is assuming MCW will be extended an ST-12 Tax Exemption form at time of award in accordance with RFP Attachment B.W.

IN WITNESS WHEREOF, this offer has been approved and executed by authorized representatives of the parties as of the Effective Date.

Radford University

MCW Solutions, LLC.

Authorized Signature Date

MCW Solutions Officer Date

Chase V. Fisher

Printed Name

Printed Name



End-User Training

MCW Solutions offers varying complexities of end-user type training, encompassing, but not limited to, the following:

- Start Up Procedures
- Equipment Operations
- Normal Working Performance
- Controls
- Adjustments & Settings Changes
- Equipment Maintenance
- Shut Down Procedures
- Preventive Maintenance
- Power & Disconnects (circuits, panels)
- Safety Features
- Common Malfunctions
- Annual Inspections- any required?
- Service Schedule
- Service/Support Communications Methods and Mediums
- Warranty Information
- Questions/Concerns
- Operations & Maintenance Literature

As part of this Request for Proposal response, MCW has included Two Training Blocks, with Four hours of training per block. The specific training provisions will be determined prior to project completion unless training requirements are described within the Request for Proposal.



MCW Workmanship and Product Warranty

MCW will provide Radford University with a (1) year warranty on workmanship commencing on the date of the project's completion date which shall be documented at the conclusion of the project. There shall be no additional cost to specifically correct workmanship issues. MCW will support the Manufacturer's Warranty for up to 1 year or for the term supported by the Manufacturer not to exceed 1 year. Any labor, shipping or other costs that are incurred by MCW in resolving a manufacturer issue shall be billed to the Customer at MCW's current rates.

MCW Solutions provides the following:

- MCW's proposed solution is guaranteed for a period of one year against the workmanship starting on the date of the conclusion of the project.
- If designed by MCW then the Warranty shall also be extended to the functionality of the design for a period of 1 year starting from the conclusion of the project.
- Replacement of manufacturer covered Warranty hardware, provided it does not show any abuse or abnormal use. After 90 days this excludes any expenses incurred by MCW for labor, shipping or administrative work to process the Warranty on behalf of the Customer.
- If repairs are required during the first year, all repairs will be executed at the client's site, unless MCW deems the hardware un-repairable. In no way shall MCW bear responsibility for failure of any device unless proven that the device had been installed outside the manufacturer's specifications. Any labor or expenses incurred by MCW correcting a manufacturer issue shall be billable to the Customer.

Tampering:

Support services required as a result of any modification of the Hardware or Software Components by individuals who are not representatives of MCW and/or are not expressly authorized by MCW to perform such modification will be responsible for the maintenance costs associated to resolve any issues arising out of such modifications are not limited to:

- 1) Additional OFE equipment added to a completed system without MCW's knowledge
 - 2) Modification of existing network causing MCW's installed equipment to go offline
 - 3) Unauthorized firmware updates
- System Administration telephone technical or support and MCW's on-line ticketing system shall be made available to MCW customers for no additional fee.

MCW's Warranty Care Program does not include transportation or shipping costs for manufacture warranty hardware repairs or substitute loaner equipment for broken equipment.

An MCW Full Service Agreement (FSA) would include the labor to facilitate the warranty repairs for failed devices and equipment. Depending on the level of the FSA, the Customer may not have any expenses whatsoever to correct or replace failed devices and may also include guaranteed response times, loaners, end-user remote technical support. MCW may also provide semiannual preventive maintenance, where a technician will be dispatched on-site to apply minor adjustments, calibrations, or fine-tuning.

Standard Service Rates

Details of an FSA can be provided upon request. In general Standard Service Rates do not include replacement or loaner parts but rather a response from a Level I technician who may be assigned to your account and familiar with the installed systems.



Any remote troubleshooting could happen immediately. Onsite support may be provided same day depending on the level of urgency and availability of technicians. There will be a minimum of a two hour charge and all other time will be billed as agreed and required.

Rates: (Minimum two-hours)

- Service Technician - \$135/hour
- Programmer - \$145/hour
- Emergency After-hours Technician - \$155/hour

**Proposed Rates are negotiable based upon the breadth of services required of your organization.*

**Price/Quote related data valid until 1/29/2016*



Service and Preventive Maintenance Support (RFP Attachment C & Special IT Terms and Conditions, and Attachment F)

Our Full Extended Service Agreement, combined with our in-depth technical infrastructure, enables our company to meet both your service needs, and expectations. This agreement goes beyond most service plans—with more features designed to minimize system downtime making it easier for you to perform your other daily job functions.

These key features include:

1. Available 24 Hours a Day, 7 Days a Week

Service support from our technicians is available around the clock.

Benefit:

Your systems never sleep. No matter what time of the day or day of the week your system experiences problems, our technicians will respond, and respond quickly, keeping your downtime and inconvenience to a minimum.

2. Defect Correctable Response Time

We stock our service vehicles with the most commonly used components of our installed systems including critical system components that are used commonly in our integrated solutions. In some cases free loaner equipment is available for our customer's use while repairs are being made to the faulty equipment. These factors contribute to our service technician's ability to often fix the problem on the first visit reducing system down time.

Benefit:

Responding to a service problem is not enough—resolving it and resolving it quickly is all that matters. Our Defect Correctable Response Time feature allows us to replace and or repair any defective equipment quickly—reducing the amount of time your system is down.

3. All Parts and Labor Included, 100%

All materials and labor required to support this maintenance plan are included—including preventative maintenance checks.

Benefit:

Under our Full Service Agreement, you can safely budget for the maintenance of your system. There will be no budgetary surprises associated with the normal servicing of your system.

4. Preventative Maintenance

MCW will provide site visits to inspect and clean system components and ensure proper operation

Benefit:

- Proactively helps reduce system failures and costly down time

Service Level Guarantee

Onsite Service support from our response team is available Monday through Friday from 7:30 am until 5 pm.

Unlimited phone and email Service Support from our help desk is available from 7:30 am until 6pm Monday through Friday and routes your service calls for a quick and effective response.



Parts and Repair Replacement

Our service vehicles are stocked with parts and materials including some system sub-components that are commonly used in our integrated solutions. These factors contribute to our service technician's ability to often fix the problem on the first visit reducing system down time. However, due to the unique and custom solution that has been provided, it is impossible to inventory every possible component. MCW works closely with all manufacturers to rapidly process repairs and replacement parts (RMA), assuring you get the critical parts and your system online quickly.

Note: Video Conference Codec repair and replacement are under the manufacturer extended warranty; additional fees will be incurred if the annual renewal coverage was waived.

All basic materials and labor required to support this maintenance plan are included, including labor to repair, install within its warranty period as well as scheduled preventative maintenance checks. All installed manufacture equipment is covered by the product warranty. There are no repair fees to be incurred as well as expedited repair and shipping costs where available. Out of warranty items that need replacing or repair are discounted 10% off MSRP or GSA pricing.

Note: End of Life items that are no longer supported by the manufacturer are not included and may need to be replaced with a current version.

Escalation Support

MCW provides management support in escalating issues with manufactures to resolve your problems.

Preventive Maintenance

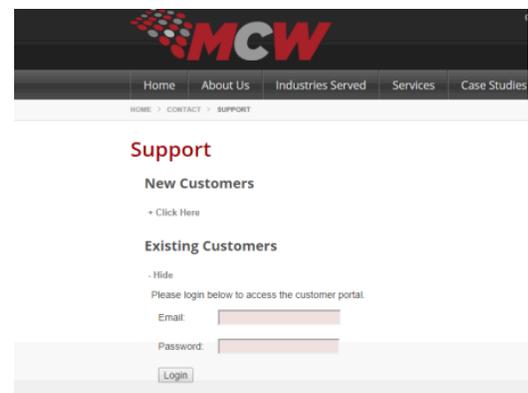
MCW will provide scheduled maintenance visits (PMI) to inspect and check on the operation of critical components and conduct preventative maintenance. Manufacturer firmware updates during these visits assure consistent system functionality. Scheduled visits proactively help reduce system failures and costly down time.

Note: Firmware updates apply only to MCW installed equipment.

Online Systems Portal

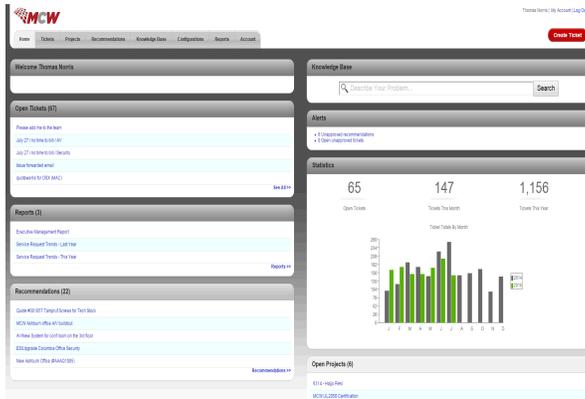
Access to MCW's service portal allows you to be up to date on your service ticket status, schedule and provides direct review of your service history. A simple email to ESsupport@mcwsolutions.net begins the process and a quick response to insure your service issue is addressed in a timely manner.

Response time is defined as the time an MCW service coordinator responds to a call placed into MCW either from the service portal or phone call. The full service plan will place your service issue at a priority level. Depending on the time of the call, same day service may be available, next business day service is guaranteed.





MCW offers the Authority multiple methods of tracking project, service, and support activities. Made for companies that sell, service, and support technology, MCW has a companywide, fully-integrated, enterprise service and support platform. MCW’s Service Portal provides clients direct access to start, manage, and close service and project tickets. The intent is to provide Radford University with the accountability and the operational efficiency they should expect from their service and support providers. The platform fully integrates business-process automation, help desk, customer service, sales, marketing, project management, and business analytics that will dramatically streamline the Authority’s Task Order issuing and service-maintenance operations.



MCW will provide any number of authorized Radford University Administrators access to the MCW Support Portal. Each administrator will have the ability to manage service tickets respective to the overall Radford University, individual agencies, and/or individual Radford University-owned/managed sites. Meaning, access rights to view a single, numerous, or the entire Radford University’s worth of service/project tickets can be provided to Administrators as authorized by the Radford University.

Within MCW’s Support Portal Radford University Administrators can perform a host of functions, not just check the status of service calls. It will allow them to initiate (or immediately halt) activities within MCW’s Network Operations/Dispatch Center, Project Management Office, such as:

- ❖ Service and Support Tickets
- ❖ Engage Remote Support
- ❖ Video and/or Voice Support
- ❖ Tracking and Analyzing Tickets
- ❖ Customer Generated Tickets
- ❖ Onsite Support
- ❖ Project/Task Order Issuance
- ❖ New Task Order Issuance
- ❖ SLA Management

Each Administrator’s portal will provide response timelines and performance status metrics regarding their service tickets and/or projects, both past and current.

Each Administrator can elect the breadth of information they can or want to view on their service portal dashboard, or MCW can develop varying levels of standard dashboard views/user types; all metrics that will be defined to MCW by the Authority.

Authority designated administrators will also have the ability to initiate a service and support ticket via e-mail. They will simply write to the proper service desk and the Radford University Administrator’s e-mail will auto-generate a service ticket, initiate an immediate response from MCW to the inquiring administrator, notifying them of receipt. As MCW’s service dispatch personnel responds, via e-mail, Authority Administrators be provided the same breadth of data and updates they would receive if they were to use the web portal.

As an example, if a video system component is having issues, an administrator will be able to write ESSupport@MCWSolutions.net. This will initiate a service ticket, and the information within the Administrator’s e-mail describing the issue will be immediately sent to the on-call service technician, to their managing supervisor, and appear on MCW’s Network Operations Center video wall depicting current service and maintenance tickets in our system.