Roanoke Valley Juvenile Detention Center

Digital Video Management System

Request for Proposals

And

BID

SPECIFICATIONS

January 23, 2005

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 This section covers the provision of digital video management and storage systems for Roanoke Valley Juvenile Detention Home including all items and systems required by these specifications.

1.1.2 The requirements of these specifications shall be understood to be Roanoke Valley Juvenile Detention Home's minimum. The requirements shall be expanded as necessary to ensure quality. However, unless Roanoke Valley Juvenile Detention Home approval is obtained, the requirement herein shall not be deleted or revised.

1.1.3 Roanoke Valley Juvenile Detention Home shall be hereinafter referred to in this document as the OWNER and the bid respondents shall be referred to as the SECURITY CONTRACTOR. The term OWNER includes direct employees and other appointed OWNER agents such as architects or consultants. These agents may be requested by the OWNER to represent the OWNER in undertaking certain project tasks.

1.1.4 Sealed Proposals, subject to the terms and conditions contained herein and attached hereto, will be received in a sealed envelope by the Roanoke Valley Juvenile Detention Center, 498 Coyner Springs Rd., Roanoke, Virginia 24012, Attention Alan Hullette, until, but not later than 4:00 P.M., local time prevailing, February 4, 2005. All proposals shall remain valid for sixty days from the date proposals are due. Employment discrimination is prohibited.

1.1.5 Proposals to be submitted shall be an original and three copies. Proposals shall be clearly identified on the outside of the sealed envelope as follows:

Sealed Proposal – Digital Video Management System
Roanoke Valley Juvenile Detention Center
February 4, 2005 – 4:00 P.M.

Failure to comply with these requirements may be cause for rejection of proposals. Any proposals received after the announced time and date of opening, whether by mail or otherwise, will not be considered. Proposals sent by fax or any other form electronic transmission will not be considered.

The Center reserves the right to reject any or all proposals submitted, to waive informalities, and also to make award where it appears it will be in the best interest of the Center.

It is the responsibility of the proposer to inquire about and clarify any requirement of this Request for Proposal that it does no understand.

Questions concerning this Request for Proposal should be directed to:

James Yancey, Business Manager
Roanoke Valley Juvenile Detention Center
(540)561-3840

1.2 Background

The Roanoke Valley Juvenile Detention Center is owned and operated by the Roanoke Valley Detention Commission which consists of the member jurisdictions comprised of the cities of Roanoke and Salem, and the counties of Roanoke, Botetourt, and Franklin. The Commission was created to collectively address the increased need for secure detention space for juveniles in the Roanoke Valley.

The eighty-one (81) bed center provides care for juveniles who are awaiting final disposition in court. In some instances, juveniles are sentenced to the Center for periods up to six months in an effort to provide local services as an alternative to their commitment to a juvenile correctional center.

1.3 Evaluation and Selection Criteria

A. Representatives for the Center will review and evaluate the responses received against the evaluation criteria. One or more companies may be selected to meet with representatives for the Center to make oral presentations. Based on the evaluation of written proposals and the results of any oral presentations, if any a final selection will be made and an agreement finalized.

B. The following criteria will be considered in evaluating the proposals received:

1. Qualifications, expertise and experience of the company. This evaluation will be based on the breadth and depth of the company's recent and relevant experience in the provision of comparable services to other entities similar to the Center.
2. Demonstrated understanding of the Commission's needs. Credit will be given to demonstrated insight, suggested approaches, priorities or area of emphasis and innovative and constructive thinking.
3. The lowest total cost proposal will be highly considered. This includes hardware, software, installation, and training. This will exclude any upgrades, changes, or maintenance agreements.

1.4 PRECEDENCE

1.4.1 If any statement in this or any other specification is in conflict with any provision of the General Terms and Conditions to the contract, the provision stated in the General Terms and Conditions shall take precedence. Any questions, which require additional interpretation and guidance, shall be immediately brought to the Owner's attention.

1.5 REFERENCES

1.5.1 Referenced standards and recommended practices referred to herein shall be the latest edition or revision of the referenced document.

1.5.2 Systems shall be designed, manufactured, tested and installed in accordance with NFPA 70 (National Electrical Code), state codes, local codes, requirements of authorities having jurisdiction and in particular:

1.5.3 Manufacturer and system requirements:

A. Registered with METLABS, Inc.

B. Certified to UL1950, UL60950 and UL14992 for safety.

C. The systems must have been verified to meet the standards of FCC Part 15 for emissions.

D. Equipment and materials for which there are UL standard testing requirements, listings, and labels shall be listed and labeled by UL.

QUALITY ASSURANCE

1.5.4 Manufacturer

A. Company specializing in manufacturing the System specified in this section with minimum 10 years documented experience.

B. Manufacturer must have the capabilities and willingness to modify software code to provide specific capabilities that may be required by Roanoke Valley Juvenile Detention Center.

C. Manufacturer must have a plan for future hardware and software additions and enhancements to the proposed system.

D. Manufacturer must provide for economical upgrades to adapt installed systems future versions.

1.5.5 Installer

A. The Contractor shall be regularly engaged in providing security equipment and security related services and shall have been engaged in such work for a period of not less than 5 years prior to bid submittal.

B. All personnel employed by the Contractor shall be registered with the State or local jurisdiction Systems Licensing Board as provided for by current state statutes.

C. The Contractor shall, at the time of the bid, provide satisfactory evidence of liability insurance and Workmen's Compensation coverage for employees as required by law.

D. The contractor shall be an authorized dealer for equipment included in this bid.

E. The Contractor shall be prepared to provide upon request the name and location of a similar project which would be available for inspection by the owner or his representative in order to verify the competency of the Contractor to perform within the scope of this project.

SUBMITTALS

1.5.6 The Contractor shall submit shop drawings for the project at the time of the bid award. Shop drawings shall include point-to-point-wiring diagrams for the installation. Point-to-point diagrams shall detail each device location and all associated wire runs. Provide with the shop drawings a separate layout drawing for each equipment panel, rack, and cabinet and control unit on the project. The panel layout drawings shall show each component and shall detail the wiring for all devices connected to all components within the rack or panel. They shall show the labeling of each terminal strip connection point, each wire connected to the connection point and each cable leaving the rack or panel. The layout drawings shall indicate in detail the labeling of each component within the panel including power supplies, terminal strips, switches, card cages and plug-in modules.

1.5.7 The Contractor shall submit product data sheets to the owner for all equipment and components provided for in this project.

1.5.8 The Contractor shall submit detailed description of all equipment locations and mounting particulars to the owner. The Contractor shall describe coordination efforts that have been made or need to be made, either by contractor or owner or any other party for the installation to proceed on schedule in the manner described.

1.6 INSTALLATION PRACTICES

1.6.1 The Contractor shall provide, in accordance with individual manufacturer's instructions, the installation of all equipment specified within this section of the specifications and/or shown on the associated drawings unless specified as being installed by others.

1.6.2 The Contractor shall provide all conduit, wiring, terminations, materials, and connections to all equipment unless specified as being provided by others.

1.6.3 All exposed metallic flexible conduit and armored cable shall be dressed down neatly and secured with low profile, metal fasteners.

1.7 SYSTEM LABELING

1.7.1 The Contractor shall provide all labeling and numbering required for all components and wiring for the project.

1.7.2 Each terminal strip and screw terminal in each cabinet, rack or panel shall be individually labeled.

1.7.3 All wiring conductors connected to terminal strips shall be individually numbered and each cable or wiring group being extended from a panel or cabinet to a building mounted device shall be identified with the name and number of the particular device as shown.

1.7.4 Each wire connected to building mounted devices shall not be required to be numbered at the device if the color of the wire is consistent with the associated wire connected and numbered within the panel or cabinet.

1.8 SYSTEM SOFTWARE

1.8.1 The Contractor shall provide the development, loading and checking of the software and/or databases for the complete and proper operation of the systems involved. When the Contractor is required to provide software, it shall be of the most current type and revision. Where licensing of the software is required, the license shall be assigned to the Owner, unless specifically prohibited by the software manufacturer. The Contractor shall provide a copy of the software on media to the Owner prior to system acceptance.

1.8.2 Prior to performing any programming, the Contractor shall coordinate with the Owner and shall obtain the Owner's specific programming requirements. The Contractor shall advise the Owner in writing, of the scheduled date for commencement of programming. The Contractor shall provide the Owner the opportunity to assist in development of programming details.

1.9 SYSTEM TESTING

1.9.1 A factory trained field technician shall perform site tests with the Owner's Representatives in attendance.

1.9.2 The Contractor shall demonstrate to the Owner's Representative that all sequences operate correctly and that all products, devices and system software operate as designed and specified.

1.9.3 As-built drawings shall include all shop drawings previously submitted. The drawings shall include all wiring and labeling as it was actually installed. Any equipment changes made during the project shall be noted.

1.10 TRAINING AND SYSTEM ACCEPTANCE

1.10.1 The Security Contractor at the job-site shall hold a training session, being a minimum one four-hour session, at times mutually agreed upon between the Owner and the Contractor. Two (2) O&M manuals shall be provided to the owner at no additional cost to the Owner.

1.10.2 The manufacturer's standard catalog cut sheets shall not be acceptable for use as O&M manuals.

1.10.3 Field set-up time, start-up time, and testing time shall not be considered as training time.

1.11 INSTALLATION, WARRANTY AND SERVICE

1.11.1 The Contractor shall guarantee all wiring and equipment for this system to be free of defects in workmanship and material for a period of one (1) year from the date of acceptance by the Owner.

1.11.2 The Contractor shall provide to the Owner's Representative a preventative maintenance contract with 24-hour guaranteed emergency response service at the time of system acceptance.

1.11.3 The Contractor shall, at the time of bidding, include the cost of a full-coverage preventative maintenance contract similar to the above for the second year as separate line item option.

1.11.4 The Contractor shall, as part of the maintenance contract, guarantee that an adequate stock and supply of replacement parts for the systems shall be maintained at the Contractor's nearest place of business. The Owner may, at his discretion, elect to maintain additional or supplementary inventories of spare parts.

1.12 OPERATIONAL PERFORMANCE

1.12.1 The design of the System shall include the integration of currently installed camera devices, CCTV control systems. The System shall be designed to provide operational flexibility and reliable performance.

1.12.2 OWNER will have the responsibility for the daily managing and operating the system.

PART 2 - SYSTEM DESCRIPTION

2.1 DIGITAL VIDEO MANAGEMENT SYSTEM (DVMS)

2.1.1 The DVMS must be modular and scalable.

2.1.2 The DVMS will monitor and record up to 32 cameras with expansion capability to accommodate up to 128 cameras.

2.1.3 The DVMS must utilize RAID 5 technology to prevent loss of data should a hard drive fail.

2.1.4 All hard drive storage capacity must be internal and within a single server.

2.1.5 The DVMS will be equipped with an Un-interruptible Power Supply to provide an orderly shutdown and automatic restart in the case of a power outage.

2.1.6 To reduce the amount of cable required to connect all cameras to the system, the DVMS must utilize a remote mounted video compression unit for each sixteen cameras that is connected to the server by CAT 5 cable.

2.1.7 The DVMS must be equipped with a LCD monitor.

2.1.8 The DVMS will provide video display with a real time display of cameras that can be displayed in a single camera mode or Multi-Pane mode showing 4, 8 or 16 camera images.

2.1.9 The DVMS will digitally record all activities captured by cameras 24 hours per day, 7 days per week for all cameras.

2.1.10 The DVMS will continuously and simultaneously record all cameras at a frame rate settable at owner's option to at least 1, 2, 4 or 8 frames per second per camera.

2.1.11 Recording frame rates will be fixed and not reduced based on time of day or alarm status.

2.1.12 Recording restrictions based on motion, time of day or events is not acceptable.

2.1.13 Each channel/video input must be processed separately so that all cameras will be recorded continuously and simultaneously. Multiplexed or frame sharing systems are not acceptable.

2.1.14 The DVMS will provide capability of selecting resolution settings independently for each camera.

2.1.15 The DVMS will provide the capability to allow the owner to attach alarm inputs to cameras and select the alarms to cause a camera to start acquiring data. The alarm will also be used to simply signify an area was or is intruded.

2.1.16 Each alarm must be identified by a number or by a user entered Name/Description of up to 80 characters.

2.1.17 The DVMS will provide search capabilities by time and date, camera location, motion, and/or alarm activation to quickly access stored video for the purpose of investigating incidents.

2.1.18 The DVMS must produce watermarked, tamper-proof video to provide ironclad evidence in prosecuting violators captured on video.

2.1.19 The DVMS will utilize advanced video compression technology to provide for typical storage requirements of 500KB for a one-minute file of compressed video data recorded at 4 fps.

2.1.20 The DVMS will store all captured video images for 3 months.

2.1.21 Remote viewing software must be provided without restrictions on the number of PC's with access to the DVMS.

2.1.22 The DVMS will allow remote viewing of both live and historical images via Dial up and/or network connections currently installed by the owner.

2.1.23 Remote users with proper administrative passwords must be capable of adjusting system configuration settings.

2.1.24 The DVMS will have low bandwidth requirements to enable users to view selected video over a network at a rate of 20 Kb/sec of bandwidth, on average, for every 1 frame per second of video required.

2.1.25 The DVMS must provide operator and administrator password controls of all system functions and features.

2.1.26 The DVMS must provide a system log that records all system abnormalities such as loss of video from a camera or compression device or system restarts and shutdowns.

2.1.27 The DVMS must have the capability to provide automatically generated system status and camera tamper reports on local printers, network printers or fax.

2.1.28 The DVMS must automatically and without operator intervention perform a daily system shutdown and restart to perform recommended MS Windows file cleanup and maintenance.

2.1.29 The DVMS must have the capability to archive video files of up to two hours of activity to a single file on a hard drive that is protected from accidental overwriting or deletion. Archived files must be organized with references to user name, fields for comments describing the event.

2.1.30 The DVMS must have the capability to copy archived files to a CD.

2.1.31 CD's created on the DVMS must automatically include reader software so that the video may be displayed on any computer with a CD and using a recent Windows version.

2.1.32 The DVMS be capable of dumping recorded video to a VCR or other recording device.

2.1.33 The DVMS must be capable of editing, enhancing and creating a JPEG file of a captured still image and printing the file or saving the file to a 3.5” disk for sharing with other authorized parties electronically.

2.1.34 The Security Contractor will furnish and install distribution amplifiers for 32 camera inputs located in an equipment room. The distribution amplifiers must be capable of outputting camera signals to four devices per camera without signal degradation.

2.1.35 The DVMS server must be located in the server room which is located approximately 150 feet from the equipment room.

2.1.36 System expansion capabilities must include the addition of a direct, non-networked workstation to be located in the Superintendent’s office.

PART 3 - EXECUTION

3.1 PROJECT MANAGEMENT

3.1.1 Upon receipt of a purchase order, the Security Contractor will assign the project a specific Project Manager. Project Managers are selected for their skills and experience in organizing complex, multifaceted projects. This will assure effective planning and communication among the numerous people whose efforts are coordinated during the life of the project. The Project Manager will provide the following services:

A. Written and agreed project plans detailing the successful installation and acceptance of the system within specified time frames.

B. Coordination and scheduling of all contractor deliverables through project completion.

C. Primary point of OWNER contact for all project communication from receipt of order through final system acceptance.

D. Preparation of clearly defined project specific system acceptance criteria.

E. Status reporting and attendance at all project meetings.

F. Formal commissioning of specific project documentation and as-built drawings to the OWNER.

3.2 INSTALLATION

3.2.1 Installation of the System shall include the appropriate equipment and will be performed by a factory trained Dealer. The installation shall be completed to these specifications and project plans as required by the OWNER. The installation shall include the following:

A. Project planning and system configuration of field hardware and head-end equipment.

B. Complete hardware set-up and configuration of all system Workstations and peripherals.

C. Set-up of specific network software configuration requirements.

D. Complete system diagnostics and operation verification.

E. Completion of specific customer acceptance test plans.

F. Formal turnover of the specific project installation documentation to Maintenance Service Organization.

3.2.2 Regulated power will be provided by OWNER with dedicated circuits for the installed system. All breakers shall be properly identified and equipped with a lock to prevent inadvertent actuation of the breaker.

3.3 SYSTEM DOCUMENTATION

3.3.1 Complete documentation shall be provided with the system. The documentation shall completely describe all operations, each program, hardware and peripherals. All updates to documentation will be provided at no additional charge, in the same quantities as originally required.

3.4 MISCELLANEOUS CONDITIONS

3.4.1 Provide all wiring, connectors, power supplies, interfaces, modems, and other hardware as necessary to affect an operating system. Cabling shall be run above ceiling, and fastened to any suitable support other than the fire suppression system. Coaxial cable for video signals shall be minimum RG-6 with solid copper center conductor and with copper braid shield providing not less than 95% coverage. Jacket material shall be suitable for the application. Alarm point wiring, low-voltage power supply wiring to alarm devices, interconnect wiring between system components, and all other wiring not otherwise specified shall be minimum 18 AWG shielded twisted-pair or as specified by appropriate equipment manufacturer. Jacket material shall be suitable for plenum rated ceilings. Cable installed in exterior duct banks shall be suitable for direct burial, with an overall foil shield and water- and UV-resistant jacket. The cable shall be filled to prevent the entry of moisture between the conductors.

3.4.2 Provide and install tamper proof screws on all exposed boxes.

3.4.3 All programming of the security system and system components necessary to provide a fully operational system shall be included in the scope of this work. All Alarm graphics maps shall be programmed and generated by the SECURITY CONTRACTOR to the satisfaction of the owner.

3.4.4 These specifications and the drawings submitted with the specifications represent an outline of the system that is desired. The compatibility of the equipment described is the responsibility of the contractor submitting the proposal. It has not been intended to list all parts, interfaces, and miscellaneous equipment that may be needed; it is the responsibility of the contractor submitting the proposal to provide the equipment necessary to provide a properly operating system.

3.4.5 Any holes or visible damage created while retrofitting hardware will be properly corrected and patched to the OWNERS satisfaction.