

City of Round Rock
REQUEST FOR PROPOSALS
AUDIO/VIDEO RECORDING SYSTEM

PART I
GENERAL

1. **PURPOSE:**

- 1.1 The City of Round Rock, Texas seeks proposals from qualified proposers to furnish delivery, install and connect a complete integrated audio video recording system (hardware, software, programming, engineering, cabling and installation) for the Police Department interview rooms and detention area.

2. **BACKGROUND:**

- 2.1 The current Audio/Video Recording System consists of Sonitrol security cameras with no sound, a Data Projections system to include three wired Hi-res color covert thermostat cameras, two covert PAM "wall switch" microphone, Bal-Unbal Mic Preamp with Phantom power and two Super Circuits, 4-channel H.264 DVRs with DVD burner that we wish to trade in, reconfigure, or repurpose.
- 2.2 Our goal is to achieve high quality, secure and covert recordings both audio and visual to use as evidence with the option to backup or burn information onto an optical medium for storage.

3. **DEFINITIONS:** The following definitions will be used for identified terms throughout the specification and proposal document:

- 3.1 Agreement – A mutually binding legal document obligating the Vendor to furnish the goods, equipment or services and obligating the City to pay for it.
- 3.2 City – Identifies the City of Round Rock, Travis and Williamson County, Texas.
- 3.3 Deliverables - The goods, products, materials, and/or services to be provided to the City by Respondent if awarded the agreement.
- 3.4 Goods - Represent materials, supplies, commodities and equipment.
- 3.5 Improvement – Describes any work or modification to City property that adds to the overall value of the property.
- 3.6 Proposal - Complete, properly signed response to a Solicitation that if accepted, would bind the Respondent to perform the resulting contract.
- 3.7 Proposer/Respondent - Identifies persons and entities that submit a proposal.
- 3.8 Purchase Order - Is an order placed by the Purchasing Office for the purchase of Goods or Services written on the City's standard Purchase Order form and which, when accepted by the Respondent, becomes a contract. The Purchase Order is the Respondent's authority to deliver and invoice the City for Goods or Services specified, and the City's commitment to accept the Goods or Services for an agreed upon price.
- 3.9 Services - Work performed to meet a demand. The furnishing of labor, time, or effort by the vendor and their ability to comply with promised delivery dates, specification and technical assistance specified.
- 3.10 Subcontractor - Any person or business enterprise providing goods, labor, and/or services to a Vendor if such goods, equipment, labor, and/or services are procured or used in fulfillment of the Vendor's obligations arising from a contract with the City.
- 3.11 Vendor (Sometimes referred to as Contractor) - A person or business enterprise providing goods, equipment, labor and/or services to the City as fulfillment of obligations arising from an agreement or purchase order.

4. CONFLICT OF INTEREST:

- 4.1** Effective March 1, 2006, Chapter 176 of the Texas Local Government Code (House Bill 914) requires that any vendor or person considering doing business with a local government entity disclose the vendor or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. The Conflict of Interest Questionnaire form is available from the Texas Ethics Commission at www.ethics.state.tx.us. Completed Conflict of Interest Questionnaires may be mailed or delivered by hand to the City Secretary. If mailing a completed form, please mail to:

City of Round Rock
City Secretary
221 East Main Street
Round Rock, Texas 78664

Any attempt to intentionally or unintentionally conceal or obfuscate a conflict of interest may automatically result in the disqualification of the Respondent's proposal.

5. CITY CONTACT:

All questions, clarifications or requests for general information are to be directed to:

Carolyn Brooks
Purchaser
221 E Main St
Round Rock, TX 78664
Fax (512) 218-7028
Telephone (512)-218-5457
cmb@round-rock.tx.us

- 5.1** The individual above may be contacted for clarification of the specifications of this Request for Proposals only. No authority is intended or implied that specifications may be amended or alternates accepted prior to closing date without written approval of the City. Under no circumstances will private meetings be scheduled between Respondents and city staff.

6. EX PARTE COMMUNICATION:

- 6.1** Please note that to insure the proper and fair evaluation of a proposal, the City prohibits ex parte communication (i.e., unsolicited) initiated by the Respondent to the City Official or Employee evaluating or considering the proposals prior to the time a formal decision has been made. Questions and other communication from Respondents will be permissible until 5:00 p.m. on the day specified as the deadline for questions. Any communication between Respondent and the City after the deadline for questions will be initiated by the appropriate City Official or Employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the proposal. Ex parte communication may be grounds for disqualifying the offending Respondent from consideration of award of the solicitation then in evaluation, or any future solicitations.

PART II
INSTRUCTIONS

1. PROPOSAL SCHEDULE:

It is the City's intention to comply with the following proposal timeline:

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|------------|---|-----------------------|
| 1.1 | Request for Proposals released | April 17, 2010 |
| 1.2 | Pre-proposal and walk through | April 26, 2010 |
| 1.3 | Deadline for questions | April 27, 2010 |
| 1.4 | City responses to all questions/addendums | April 29, 2010 |
| 1.5 | Responses for RFP due by 3:00 p.m. | May 4, 2010 |

- 1.6 All questions regarding the RFP shall be submitted in writing by 5:00 p.m. on April 27, 2010. A copy of all the questions submitted and the City's response to the questions should be posted on our webpage <http://www.roundrocktexas.gov/home/index.asp?page=463>. Questions shall be submitted to the City contact named above.

NOTE: These dates represent a tentative schedule of events. The City reserves the right to modify these dates at any time, with appropriate notice to prospective Respondents through notification on our webpage and email.

2. **PROPOSAL DUE DATE:**

- 2.1 Signed and sealed proposals are due no later than 3:00 p.m., May 4, 2010, to the Purchasing Department. Mail or carry sealed proposals to:

**City of Round Rock, Texas,
Purchasing Office
221 E. Main Street
Round Rock, Texas 78664-5299**

- 2.2 Proposals received after this time and date will not be considered.
2.3 Sealed proposals should be clearly marked on the outside of packaging with the RFP title, number, due date and **"DO NOT OPEN"**.
2.4 Facsimile or electronically transmitted proposals are **not acceptable**.
2.5 Late Proposals properly identified will be returned to Respondent unopened if return address is provided.

3. **PRE-PROPOSAL MEETING AND SITE VISIT:**

- 3.1 The City will conduct a site inspection of facilities for all interested Respondents to familiarize them with the requested services and to give all potential Respondents an opportunity to ask questions they may have concerning this project.

Meeting Date: April 26, 2010 at 10:00 a.m.

Location: 2701 North Mays, Round Rock, TX 78665

4. **PROPOSAL SUBMISSION REQUIREMENTS:** Interested and qualified Respondents shall:

- 4.1 Sign the proposal document(s) as required in permanent ink.
4.2 Submit one (1) executed (signed) original and six (6) copies of each proposal and/or each proposal variation that demonstrate their experience with system and its implementation.
4.3 Documentation shall include:
 4.3.1 Vendor Qualifications.
 4.3.2 Cost Proposal.
 4.3.3 A Project Implementation Plan.

5. **DISCLOSURE OF LITIGATION:**

- 5.1 Each Respondent shall include in its proposal a complete disclosure of any civil or criminal litigation or investigation pending which involves the Respondent or in which the Respondent has been judged guilty.

6. CONFIDENTIALITY OF CONTENT:

- 6.1** All proposals submitted in response to this RFP shall be held confidential until a contract is awarded. Following the contract award, proposals are subject to release as public information unless the proposal or specific parts of the proposal can be shown to be exempt from the Texas Public Information Act. Respondents are advised to consult with their legal counsel regarding disclosure issues and take the appropriate precautions to safeguard trade secrets or any other proprietary information. The City assumes no obligation or responsibility for asserting legal arguments on behalf of potential Respondents.
- 6.2** If a Respondent believes that a proposal or parts of a proposal are confidential, then the Respondent shall so specify. The Respondent shall stamp in bold red letters the term "**CONFIDENTIAL**" on that part of the proposal, which the Respondent believes to be confidential. Vague and general claims as to confidentiality shall not be accepted. All proposals and parts of proposals that are not marked as confidential will be automatically considered public information after the contract is awarded.

7. CLARIFICATION OF PROPOSALS:

- 7.1** The City reserves the right to request clarification or additional information specific to any proposal after all proposals have been received and the RFP close date has passed.

8. PROPOSAL PREPARATION COSTS:

- 8.1** All costs directly or indirectly related to preparation of a response to this solicitation or any oral presentation required to supplement and/or clarify a Proposal which may be required by the City shall be the sole responsibility of the Respondent.

9. EVALUATION CRITERIA:

- 9.1** All proposals received shall be evaluated based on the best value for the City. In determining best value, the City may consider:
- 9.1.1** Price;
 - 9.1.2** Reputation of the Respondent and of Respondent's goods and services;
 - 9.1.3** The quality of the Respondent's goods or services;
 - 9.1.4** The extent to which the goods or services meet the City's needs;
 - 9.1.5** Respondent's past relationship with the City;
 - 9.1.6** Clarity and completeness of the submitted proposal;
 - 9.1.7** The total long-term cost to the Municipality to acquire the Respondent's goods or services; and,
 - 9.1.8** Any relevant criteria specifically listed in the solicitation.

10. EVALUATION PROCESS:

- 10.1** A team comprised of City Staff and others as appropriate will review the responses to the RFP.
- 10.2** Interviews and/or demonstrations may be conducted with any Respondent to discuss their qualifications, resources and ability to provide the service specified.
- 10.2.1** Upon completion of the evaluation, the selection team may recommend a Respondent for award of the project or service identified.
 - 10.2.2** An agreement with the recommended respondent may then be negotiated. This process will be completed with the City Council's authorization to the Mayor for the execution of the agreement or the execution of the agreement by the City Manager.
- 10.3** The City reserves the right to negotiate with any and all Respondents.
- 10.4** The City also reserves the right to reject any or all proposals, or to accept any proposal deemed most advantageous, or to waive any irregularities or informalities in the proposal received and to revise the process as circumstances require.

PART III
SPECIFICATIONS

1. **SCOPE OF WORK**: This Request for Proposal is for the purchase and installation of an integrated Audio/Video Recording System for several interview rooms and detention areas at the Police Department. The System shall include, but not be limited to all audio and video recording hardware, cabling, software, engineering, programming, installation and maintenance.
2. **TECHNICAL EXPERTISE**: Interested Proposers shall have extensive knowledge and expertise in the areas of integrated Audio/Video Recording System. Proposer shall:
 - 2.1 Be firms, corporations, individuals or partnerships normally engaged in the sale and distribution of commodity or providing the services as specified herein.
 - 2.2 Have adequate organization, facilities, equipment and personnel to ensure prompt and efficient service to the City.
 - 2.3 Describe the proposed hardware and software configurations, specifically addressing issues, scalability, and network compatibility
3. **SYSTEM REQUIREMENTS**: The vendor's system shall address the following technical requirements. **See System Needs Attached**
 - 3.1 Your response shall contain an explicit comply/exception assessment of whether your system meets each requirement and, whenever necessary, description of compliance to each point. Shall your system or any part of the system fail to meet any of the following requirements, explain the reasoning that substantiates that the variation from these requirements is not critical.
 - 3.2 The system shall meet or exceed all federal, state and local regulations.
 - 3.3 The system shall be installed in a central location designated by the City and accessible for viewing, recording and backup across the Police Department network.
 - 3.4 The DVR shall record and view at a minimum of 30 frames per second (fps) per channel across all channels simultaneously without degradation to the quality of recording or viewing.
 - 3.5 Please note that all answers shall reflect current capabilities. Any future capabilities shall be stated as such and outlined with a development schedule.
 - 3.6 **Interview Rooms**: All interview rooms throughout the building shall be viewable live from any authorized computer on the network. Each room shall:
 - 3.6.1 Have two camera locations.
 - 3.6.2 Be equipped with an on/off switch for viewing and recording of that room.
 - 3.6.3 All cameras and microphones in interview locations shall be covert.
 - 3.7 The System shall initiate a recording in any interview room from any authorized computer on the network.
 - 3.8 Archived video shall be viewable, over any authorized computer on the network, simultaneously with any recording or viewing taking place without degradation to the quality of video being recorded or viewed.
 - 3.9 **Detention Area**: This area is comprised of three (3) general areas. Two of the areas consist of three cells each and an officer work area and one area of four (4) cells each and an officer work area. Detention Areas shall:
 - 3.9.1 Have a camera and microphone in each cell suited for the environment.
 - 3.9.2 Have a camera and microphone in each work area.
 - 3.9.3 Equipped with an occupancy sensor located in each officer work area that shall activate recording of the work area and all associated cells in that work area.
 - 3.9.4 All areas in the Detention Area shall be viewable from any authorized computer on the network.

4. **MANUALS:** Two complete manuals containing illustrated parts list(s) and operating and service instructions for each unit and or component shall be delivered with the system.
 - 4.1 The manual(s) shall be as detailed as possible outlining all necessary service and operating instructions for each system delivered. Parts list(s) shall cover all components of the system. Each part shall be identified by part number, description and component location. Necessary warnings and safety precautions shall be included.
5. **INSTRUCTION ON OPERATION AND MAINTENANCE:** The Vendor shall provide to the City a minimum of eight hours instruction on safety, operation and service of the system by a factory-trained instructor after the unit(s) has been installed and is ready for operation, but prior to payment.
 - 5.1 Provide the City's designated representative with ongoing product and technical support.
 - 5.2 Notify City of updates, changes, recalls, malfunctions and improvements to hardware and software of the system provided.
6. **WARRANTY:** Awarded Proposer shall warrant in writing that the System installed shall conform to this specification, manufacturer's documentation, and any agreed changes in all respects, including, but not limited to, operating performance, memory requirements, documentation and compatibility.
 - 6.1 Awarded Proposer shall represent and warrant to the City that, for a period of not less than twelve (12) months following the Acceptance Date for the System installed shall:
 - 6.1.1 Be in good operating condition, free from defects in material and workmanship.
 - 6.1.2 Meet or exceed the published functional requirements for the System described in this RFP and response to this RFP.
 - 6.1.3 Perform in accordance with or exceed all acceptance criteria for such product described in the agreement.
 - 6.1.4 Not void specific warranties issued by manufacturers for greater periods of time.
 - 6.1.5 Not void any rights guaranteed to the City by law.
7. **DELIVERABLES:** The successful Proposer shall provide, but not limited to, each item listed in the Specification. Additionally, the Vendor shall:
 - 7.1 Coordinate with City Representative for all technical support, hardware and software problems , maintenance and training
 - 7.2 Provide a training outline for key personnel within the City.
 - 7.3 Designate a Representative(s) to work with City staff including their experience and qualifications.
 - 7.4 Provide a current Price list of all hardware, software and components.

PART IV
TERMS AND CONDITIONS

1. **ABANDONMENT OR DEFAULT:** A Vendor who abandons or defaults the work on the contract and causes the City to purchase the services elsewhere may be charged the difference in service if any and shall not be considered in the re-advertisement of the service and may not be considered in future bids for the same type of work unless the scope of work is significantly changed.
2. **COMPLIANCE WITH LAWS:** The successful bidder shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any court or administrative bodies or tribunals in any matter affecting the performance of the resulting agreement, including without limitation, workers' compensation laws, minimum and maximum salary and wage statutes and regulations, and licensing laws and regulations. When requested, the Vendor shall furnish the City with satisfactory proof of its compliance.
3. **CODES, PERMITS AND LICENSES:** The successful bidder shall comply with all National, State and Local standards, codes and ordinances and the terms and conditions of the services of the City of Round Rock, Texas, as well as other authorities that have jurisdiction pertaining to equipment and materials used and their application. None of the terms or provisions of the specification shall be construed as waiving any rules, regulations or

requirements of these authorities. The successful bidder shall be responsible for obtaining all necessary permits, certificates and/or licenses to fulfill contractual obligations (City of Round Rock fees and costs will be waived).

4. **INDEMNIFICATION**: The successful Proposer shall indemnify, save harmless and exempt the City, its officers, agents, servants, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses, attorney fees and any and all other costs or fees incident to any work done as a result of this quote and arising out of a willful or negligent act or omission of the successful Proposer, its officers, agents, servants, and employees; provided, however, that the successful Proposer shall not be liable for any suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorney fees arising out of a willful or negligent act or omission of the City, its officers, agents, servants and employees, or third parties.
5. **INSURANCE**: The successful Bidder shall meet or exceed ALL insurance requirements set forth by the City as identified in **Attachment A** to the specifications. Any additional insurance requirements of participating or cooperative parties will be included as subsequent Attachments and shall require mandatory compliance.
6. **LIENS**: Vendor agrees to and shall indemnify and save harmless the City against any and all liens and encumbrances for all labor, goods and services which may be provided under the resulting agreement. At the City's request the Vendor or subcontractors shall provide a proper release of all liens or satisfactory evidence of freedom from liens shall be delivered to the City.
7. **VENUE**: Both the City and the Vendor agree that venue for any litigation arising from a resulting agreement shall lie in Williamson County.
8. **INDEPENDENT CONTRACTOR**: It is understood and agreed that the Contractor shall not be considered an employee of the City. The Contractor shall not be within protection or coverage of the City's Worker' Compensation insurance, Health Insurance, Liability Insurance or any other insurance that the City from time to time may have in force and effect.
9. **OVERCHARGES**: Contractor hereby assigns to purchaser any and all claims for overcharges associated with this purchase which arise under the antitrust laws of the United States, 15 USGA Section 1 et seq., and which arise under the antitrust laws of the State of Texas, Bus. and Com. Code, Section 15.01, et seq.

PART V
DELIVERY, SERVICE, ACCEPTANCE AND PAYMENT

1. **SERVICE**: Vendor shall have service and maintenance available to the City and shall respond to a request for service as specified.
 - 1.1. Consistent failure by the vendor to respond to service calls within the allowed response time may place the vendor in default and subject to cancellation of the purchase order and, or agreement. Consistent failure is defined as not responding within the allowed response time at any or all locations on two (2) out of three (3) consecutive occurrences.
 - 1.2. Service technicians shall be fully qualified to work on the listed equipment and employed by the vendor on the effective date of the agreement. Vendor shall be able to verify that service personnel have had training with a minimum of one year of "hands on" experience working on the listed equipment.
2. **ACCEPTANCE**: Acceptance inspection should not take more than five (5) working days. The vendor will be notified within this time frame if the service provided is not in full compliance with the project scope. If any service is canceled for non-acceptance, the needed equipment or service may be purchased elsewhere and the vendor may be charged full increase, if any, in cost and handling.
3. **INVOICING**: Vendor shall submit one original and two copies of each invoice monthly referencing the assigned Purchase Order number to the following address:

City of Round Rock
Accounts Payable
221 East Main Street
Round Rock, TX 78664-5299

4. **PROMPT PAYMENT POLICY:** Payments will be made within thirty days after the City receives the supplies, materials, equipment, or the day on which the performance of services was completed or the day, on which the City receives a correct invoice for the service, whichever is later. The Contractor may charge a late fee (fee shall not be greater than that which is permitted by Texas law) for payments not made in accordance with this prompt payment policy; however, this policy does not apply to payments made by the City in the event:
- 4.1. There is a bona fide dispute between the City and Contractor concerning the supplies, materials, services or equipment delivered or the services performed that causes the payment to be late; or
 - 4.2. The terms of a federal contract, grant, regulation, or statute prevent the City from making a timely payment with Federal Funds; or
 - 4.3. There is a bona fide dispute between the Contractor and a subcontractor or between a subcontractor and its suppliers concerning supplies, material, or equipment delivered or the services performed which caused the payment to be late; or
 - 4.4. The invoice is not mailed to the City in strict accordance with instructions, if any, on the purchase order or contract or other such contractual agreement.

ATTACHMENT A

City of Round Rock Insurance Requirements

ATTACHMENT A
CITY OF ROUND ROCK
INSURANCE REQUIREMENTS

1. **INSURANCE:** The Vendor shall procure and maintain at its sole cost and expense for the duration of the contract or purchase order resulting from a response to this bid/Specification insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work as a result of this bid by the successful bidder, its agents, representatives, volunteers, employees or subcontractors.
 - 1.1. Certificates of Insurance and endorsements shall be furnished to the City and approved by the City before work commences.
 - 1.2. The following standard insurance policies shall be required:
 - 1.2.1. General Liability Policy
 - 1.2.2. Automobile Liability Policy
 - 1.2.3. Worker's Compensation Policy
 - 1.3. The following general requirements are applicable to all policies:
 - 1.3.1. Only insurance companies licensed and admitted to do business in the State of Texas shall be accepted.
 - 1.3.2. Deductibles shall be listed on the Certificate of Insurance and are acceptable only on a per occurrence basis for property damage only.
 - 1.3.3. Claims made policies shall not be accepted, except for Professional Liability Insurance.
 - 1.3.4. Upon request, certified copies of all insurance policies shall be furnished to the City
 - 1.3.5. Policies shall include, but not be limited to, the following minimum limits:
 - 1.3.5.1. Minimum Bodily Injury Limits of \$300,000.00 per occurrence.
 - 1.3.5.2. Property Damage Insurance with minimum limits of \$50,000.00 for each occurrence.
 - 1.3.5.3. Automobile Liability Insurance for all owned, non-owned, and hired vehicles with minimum limits for Bodily Injury of \$100,000.00 each person, and \$300,000.00 for each occurrence, and Property Damage Minimum limits of \$50,000.00 for each occurrence.
 - 1.3.5.4. Statutory Worker's Compensation Insurance and minimum \$100,000.00 Employers Liability Insurance.
 - 1.3.6. Coverage shall be maintained for two years minimum after the termination of the Contract.
 - 1.4. The City shall be entitled, upon request, and without expense to receive copies of insurance policies and all endorsements thereto and may make reasonable request for deletion, revision, or modification of particular policy terms, conditions, limitations, or exclusions (except where policy provisions are established by law or regulation binding either of the parties hereto or the underwriter of any of such policies). Upon such request by the City, the Vendor shall exercise reasonable efforts to accomplish such changes in policy coverage and shall pay the cost thereof. All insurance and bonds shall meet the requirements of the bid specification and the insurance endorsements stated below.
 - 1.5. Vendor agrees that with respect to the required insurance, all insurance contracts and certificate(s) of insurance will contain and state, in writing, on the certificate or its attachment, the following provisions:

- 1.5.1. Provide for an additional insurance endorsement clause declaring the Vendor's insurance as primary.
- 1.5.2. Name the City and its officers, employees, and elected officials as additional insured's, (as the interest of each insured may appear) as to all applicable coverage.
- 1.5.3. Provide thirty days notice to the City of cancellation, non-renewal, or material changes
- 1.5.4. Remove all language on the certificate of insurance indicating:
 - 1.5.4.1. That the insurance company or agent/broker shall endeavor to notify the City; and,
 - 1.5.4.2. Failure to do so shall impose no obligation of liability of any kind upon the company, its agents, or representatives.
- 1.5.5. Provide for notice to the City at the addresses listed below by registered mail:
- 1.5.6. Vendor agrees to waive subrogation against the City, its officers, employees, and elected officials for injuries, including death, property damage, or any other loss to the extent same may be covered by the proceeds of insurance.
- 1.5.7. Provide that all provisions of this contract concerning liability, duty, and standard of care together with the indemnification provision, shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies.
- 1.5.8. All copies of the Certificate of Insurance shall reference the project name, bid number or purchase order number for which the insurance is being supplied.
- 1.5.9. Vendor shall notify the City in the event of any change in coverage and shall give such notices not less than thirty days prior notice to the change, which notice shall be accomplished by a replacement Certificate of Insurance.
- 1.5.10. All notices shall be mailed to the City at the following addresses:

Assistant City Manager City of Round Rock 221 East Main Round Rock, TX 78664-5299	City Attorney City of Round Rock 309 East Main Round Rock, TX 78664
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2. WORKERS COMPENSATION INSURANCE

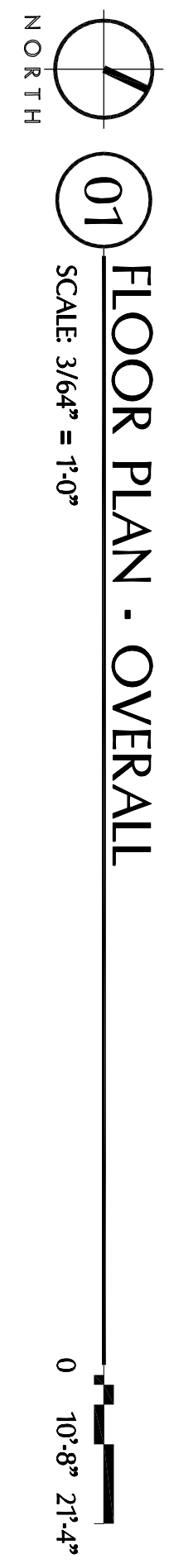
- 2.1. Texas Labor Code, Section 406.098 requires workers' compensation insurance coverage for all persons providing services on building or construction projects for a governmental entity.
 - 2.1.1. Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.
 - 2.1.2. Duration of the project - includes the time from the beginning of the work on the project until the CONTRACTOR'S /person's work on the project has been completed and accepted by the OWNER.
- 2.2. Persons providing services on the project ("subcontractor") in Section 406.096 - includes all persons or entities performing all or part of the services the CONTRACTOR has undertaken to perform on the project, regardless of whether that person contracted directly with the CONTRACTOR and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity, which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not

include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- 2.3.** The CONTRACTOR shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the CONTRACTOR providing services on the project, for the duration of the project.
- 2.4.** The CONTRACTOR must provide a certificate of coverage to the OWNER prior to being awarded the contract.
- 2.5.** If the coverage period shown on the CONTRACTOR'S current certificate of coverage ends during the duration of the project, the CONTRACTOR must, prior to the end of the coverage period, file a new certificate of coverage with the OWNER showing that coverage has been extended.
- 2.6.** The CONTRACTOR shall obtain from each person providing services on a project, and provide to the OWNER:
 - 2.6.1.** a certificate of coverage, prior to that person beginning work on the project, so the OWNER will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - 2.6.2.** no later than seven calendar days after receipt by the CONTRACTOR, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- 2.7.** The CONTRACTOR shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- 2.8.** The CONTRACTOR shall notify the OWNER in writing by certified mail or personal delivery, within 10 calendar days after the CONTRACTOR knew or should have known, or any change that materially affects the provision of coverage of any person providing services on the project.
- 2.9.** The CONTRACTOR shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- 2.10.** The CONTRACTOR shall contractually require each person with whom it contracts to provide services on a project, to:
 - 2.10.1.** provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project;
 - 2.10.2.** provide to the CONTRACTOR, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on a project, for the duration of the project;
 - 2.10.3.** provide the CONTRACTOR, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - 2.10.3.1.** obtain from each other person with whom it contracts, and provide to the CONTRACTOR:
 - 2.10.3.1.1.** a certificate of coverage, prior to the other person beginning work on the project; and
 - 2.10.3.1.2.** a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project

- 2.10.3.2.** retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
- 2.10.3.3.** notify the OWNER in writing by certified mail or personal delivery, within 10 calendar days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
- 2.10.3.4.** contractually require each person with whom it contracts, to perform as required by paragraphs (A thru G), with the certificates of coverage to be provided to the person for whom they are providing services.
- 2.10.3.5.** By signing the solicitation associated with this specification, or providing, or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- 2.10.3.6.** The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor that entitles the Owner to declare the contract void if the Contractor does not remedy the breach within ten calendar days after receipt of notice of breach from the owner.

CITY OF ROUND ROCK
ATTACHMENT B
AUDIO/VIDEO RECORDING SYSTEM
DRAWINGS WITH COMMENTS
AND
SUPPLEMENTAL INFORMATION



NO.	NAME
474	HOLDING
475	HOLDING
476	HOLDING
477	HOLDING
478	INTERVIEW
479	DETAINEE TOILET
481	INTERVIEW
482	STAFF TOILET
483	CORRIDOR
484	VESTIBULE
485	SEC. ELEC.
486	UTILITY

FLOOR PLAN - OVERALL

NOTES FOR ATTACHMENT B
BUILDING DRAWING FOR PD AUDIO-VIDEO SYSTEM

(This document collects and presents all of the notes embedded in the large-format Acrobat file which presents the building layout)

Description	Room	Business Need
Lobby Soft Interview Room	105	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated by motion detector. Camera is overt and mounted in the southeast corner of the room.
Victims Services Soft Interview Room	183	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated by wall switch or by computer workstation. Camera is covert and mounted in area providing best view of the room.
CID Interview Room	194	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert camera and microphone. Approximate camera position indicated with red arrow. Camera should be centered on the bullet table on the north wall and the microphone centered on the bullet table on the south wall. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
CID Interview Room	195	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
Polygraph Interview Room	197	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
CID Interview Room	198	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert camera and microphone. Camera position indicated with red arrow. Camera should be centered on the bullet table on the east wall and the microphone centered on the bullet table on the west wall. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.

Description	Room	Business Need
CID Interview Room	204	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert camera and microphone. Camera position indicated with red arrow. Camera should be centered on the bullet table on the west wall and the microphone centered on the bullet table on the east wall. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
CID Interview Room	205	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
Juvenile Interview Room	209	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
Juvenile Interview Room	211	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
CID Interview Room	213	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
IDF 2	224	Where recording equipment will reside.
Internal Affairs Interview Room	234	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via authorized computer workstation. May be an overt or covert, camera mounted on North wall of room, centered on bullet table. Microphone is located on the south wall centered on the bullet table.

Description	Room	Business Need
Narcotics Interview Room	387	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
Narcotics Interview Room	388	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
DWI Room	455	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Overt or covert camera and microphone. Approximate camera position indicated with red arrow.
Juvenile Detention Cell Work Area	456	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room which also activates cameras and microphones in cells 459, 458, & 457. Cameras and Microphone suitable for environment. May be overt or covert. Cameras are located general area marked in room.
Detention Cell	457	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 473. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	458	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 456. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	459	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 456. Camera and Microphone suitable for environment. May be overt or covert.

Description	Room	Business Need
Detention Area Juvenile Interview Room	463	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
DWI Room Hall	464	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via motion detector located in hall. Camera and Microphone suitable for environment. Cameras are located as marked.
Adult Detention Hall	466	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via motion detector located in hall. Camera and Microphone suitable for environment. Cameras are located as marked.
Adult Detention Cell Work Area B	467	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room which also activates cameras and microphones in cells 468, 469, & 471. Cameras and Microphone suitable for environment. May be overt or covert. Cameras are located general area marked in room.
Detention Cell	468	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 467. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	469	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 467. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	471	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 456. Camera and Microphone suitable for environment. May be overt or covert.
Adult Detention Cell Work Area A	473	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room which also activates cameras and microphones in cells 474, 475, 476 & 477. Camera and Microphone suitable for environment. May be overt or covert. Cameras are located general area marked in room.
Detention Cell	474	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 473. Camera and Microphone suitable for environment. May be overt or covert.

Description	Room	Business Need
Detention Cell	475	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 473. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	476	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 473. Camera and Microphone suitable for environment. May be overt or covert.
Detention Cell	477	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via occupancy sensor located in room 473. Camera and Microphone suitable for environment. May be overt or covert.
Detention Area Interview Room B	478	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.
Detention Area Interview Room A	481	Audio and Video available for monitoring at all times from authorized user group(s) via LAN. Recording activated via computer workstation. Covert cameras and microphones. Approximate camera positions indicated with red arrows. Interviewee chair is marked with a black dot in the center of it. The camera position facing the chair is the primary camera; the other camera is the profile camera. A switch in the room remotely mutes the audio and blanks the video until resumed by the same switch. While muted and blanked the recorder records a blank screen and no audio in real time until reactivated or the recording is ended by the user.

ATTACHMENT C

NEEDS MATRIX AND OPTIONS

1. BASE SYSTEM
2. FIRST SYSTEM UPGRADE OPTION NO. 1
3. FIRST SYSTEM UPGRADE OPTION NO. 2
4. SECOND SYSTEM UPGRADE OPTION NO. 1
5. SECOND SYSTEM UPGRADE OPTION NO 2.
6. COMPLETE SYSTEM

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
205	1	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	1	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
387	1	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	1	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	1	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	1	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
30		Total Cameras		Total Microphones		26

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
205	2	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	2	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
387	2	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	2	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	2	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	2	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
36		Total Cameras		Total Microphones	26	

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
194	1	Interview H	Must be covert	Must be covert	1	From authorized computer on LAN
195	1	Interview G	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
204	1	Interview E	Must be covert	Must be covert	1	From authorized computer on LAN
205	1	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	1	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
211	1	Juv Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
234	1	IA Interview	May be either covert or overt	May be either covert or overt	1	From authorized computer on LAN
387	1	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
388	1	Narc Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	1	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	1	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	1	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
36		Total Cameras		Total Microphones	32	

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
194	1	Interview H	Must be covert	Must be covert	1	From authorized computer on LAN
195	1	Interview G	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
204	1	Interview E	Must be covert	Must be covert	1	From authorized computer on LAN
205	2	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	2	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
211	1	Juv Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
234	1	IA Interview	May be either covert or overt	May be either covert or overt	1	From authorized computer on LAN
387	2	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
388	1	Narc Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	2	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473

477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	2	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	2	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
42		Total Cameras		Total Microphones	32	

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
194	1	Interview H	Must be covert	Must be covert	1	From authorized computer on LAN
195	1	Interview G	Must be covert	Must be covert	1	From authorized computer on LAN
197	1	Polygraph	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
204	1	Interview E	Must be covert	Must be covert	1	From authorized computer on LAN
205	1	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	2	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
211	1	Juv Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
234	1	IA Interview	May be either covert or overt	May be either covert or overt	1	From authorized computer on LAN
387	2	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
388	1	Narc Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	2	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473

476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	1	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	2	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
41		Total Cameras		Total Microphones	33	

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
105	1	Lobby Soft Interview	May be either covert or overt	Covert or in Camera	1	Motion Detector
149	1	Admin Interview	May be either covert or overt	May be either covert or overt	1	From authorized computer on LAN
183	1	VA Soft Interview	Must be covert	Must be covert	1	From authorized computer on LAN
194	1	Interview H	Must be covert	Must be covert	1	From authorized computer on LAN
195	2	Interview G	Must be covert	Must be covert	1	From authorized computer on LAN
197	2	Polygraph	Must be covert	Must be covert	1	From authorized computer on LAN
198	1	Interview F	Must be covert	Must be covert	1	From authorized computer on LAN
204	1	Interview E	Must be covert	Must be covert	1	From authorized computer on LAN
205	2	Interview D	Must be covert	Must be covert	1	From authorized computer on LAN
209	2	Juv Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
211	2	Juv Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
213	2	Interview C	Must be covert	Must be covert	1	From authorized computer on LAN
234	1	IA Interview	May be either covert or overt	May be either covert or overt	1	From authorized computer on LAN
387	2	Narc Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
388	2	Narc Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
456	2	Juv Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
457	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
458	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
459	1	Juv Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 456
463	2	Juv Detention Interview	Must be covert	Must be covert	1	From authorized computer on LAN

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
464	1	DWI Room Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
465	1	DWI Room	May be either covert or overt	May be either covert or overt	1	Motion Detector
466	1	Adult Detention Area Hall	May be either covert or overt, suitable for environment	Covert or in Camera	1	Motion Detector
467	2	Adult B Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
468	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
469	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
471	1	Adult B Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 467
473	2	Adult A Detention Work Area	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor
474	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
475	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473

Room #	# of Cameras	Room Name	Type Camera(s)	Microphones	# of Mics	Recording Activation
476	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
477	1	Adult A Detention Cell	May be either covert or overt, suitable for environment	Covert or in Camera	1	Occupancy Sensor Located in 473
478	2	Detention Interview B	Must be covert	Must be covert	1	From authorized computer on LAN
481	2	Detention Interview A	Must be covert	Must be covert	1	From authorized computer on LAN
	48	Total Cameras		Total Microphones	34	

ATTACHMENT D
REFERENCE DOCUMENT – SECTION 16780
(page 12-35)

Reference Document Section 16780 is provided as a reference and should not be construed as the specs for this system. It contains the original bid specs that were considered in working towards developing some of our ideas of what we want this to do and what it may look like. It does contain some general information as to what we think our needs are in some areas, such as the covert cameras and microphones. Again, it is provided merely to give you a reference of where we have been and what our general frame of thought has been.

Audio/Video Recording System
Reference Document 4-2010

32. The recorder shall be 7.0 inches (178 mm) high (4 RU), 19.0 inches (482 mm) wide and 17.75 inches (450 mm) deep. It shall weigh 45 lb (20.5 kg). It shall have a screened steel case construction and be finished in black color.
33. Each DVR shall be provided with a computer keyboard and three-button mouse.
34. The site and building video security recorder shall be Vicon Industries model KPR120-16-xxx or approved equal.

C. Digital Video Recorders - Interview Video/Audio Recording:

1. The DVR shall be configured specifically for interview video and audio recording where recording is initiated by session from any computer workstation with appropriate software, login, and access level.
2. All archived video and audio data shall be used for purposes of prosecution and be secured from editing using encryption and watermarking to validate authenticity.
3. System shall be capable of viewing live and archived video and audio locally and remotely.
4. All recording sessions shall simultaneously record video and audio streams to one file.
5. Recording shall be able to be initiated for multiple interview room locations on demand.
6. Recording shall only be able to be stopped by the user which initiated the session.
7. The Digital Video Recording Management and Transmission System shall meet the requirements of business and government surveillance applications. The system shall offer network connectivity to other family components that share all video and control data over the Ethernet network. The components shall be a unique line of Digital Video Recorders and Workstations. The number of network-connected components is only limited to the number of assigned IP addresses. The system shall offer multiple continuously recorded digital video and audio channels onto a hard drive medium. In addition, the system shall share other video and audio channels from other connected recorders and workstations. The system shall also record and playback video and audio to and from the internal CD-RW drive. The system shall employ proprietary software run on a proprietary Microsoft® Windows® XP Embedded platform. The software shall employ an optimized MPEG4 compression algorithm in the video digitizing scheme. The networked system shall be comprised of recorders and workstations. This specification shall refer to the recorder's performance. The recorder, without any degradation to quality, shall simultaneously offer:
 - a. 16-channel continuous video recording.
 - b. 16-channel continuous video playback.
 - c. 16-channel continuous video transmission to the Ethernet network.
 - d. 16-channel continuous video receiving from the Ethernet network.
 - e. User selectable video archiving of pre-existing recording.
 - f. The recorder shall provide full digital video and audio surveillance over a standard 100Base-T network by the use of a GUI incorporating video display areas, toolbars, control palettes, and site/device trees.

8. The recorder shall offer features including the simultaneous display, playback, distribution and archive of multiple channels of video and audio. The recorder shall collect multiple channels of analog video and audio and digitize them for the purpose of display, archive and requested distribution across the Ethernet network. Cameras shall be the primary analog input devices. Each channel of video data shall have the capability of being displayed, played back, distributed and archived simultaneously across several recorders and workstations across the network. The recorder shall also have full WAN and Internet capability, offering expandability beyond a corporate LAN. The recorder shall also record and playback video and audio from its internal CD-RW drive. The recorder shall employ a compression algorithm based on:
 - a. Optimized MPEG4 and JPEG.
 - b. User selectable resolution not requiring a need to restart the application or the recorder. It shall be selectable using a 4-position bar, from the Main Screen. There shall be 4 levels of resolution (Frame, Field, CIF, HCIF) with 2 levels of compression (Normal, Full) comprising 8 quality levels total, which shall be accessible from the Setup menu selections.
9. The recorder shall be a 240 fps version and by default, divide the total fps by the actual number of camera inputs. The actual fps rate shall have the ability to be set, by camera. The recorder shall have external RAID device connection capability to extend the total recording time beyond the limits of the specific internal hard drive. The recorder's audio data storage rate shall be approximately 0.7 GB/12 hour day/microphone.
10. The 240 fps version shall provide a daily hard drive usage of 4 to 120 GB. This usage shall be based on Quality settings ranging from Q1 to Q8, 24 hours-per-day of activity ranging from Low to Very High, 50% of time movement and Normal compression (MPEG4). Typical hard drive usage using normal scene activity under the same conditions shall range from 8 to 64 GB per day.
11. The networked system shall be comprised of:
 - a. The software platform.
 - b. Recorders.
 - c. Workstations.
12. The software installed in both recorders and workstations shall be similar in:
 - a. Graphical User Interface, therefore, an operator shall need to learn only one interface for both control and programming of the system.
 - b. Functions, offering the ability to remotely configure most system components from any recorder or workstation.
13. The recorder shall also offer a full multi-user authorization logon application. This application shall offer levels of authorization based on defined sites and functions. In addition, a full setup utility shall be available for the Administrator to configure authorizations. The login window shall consist of a User Name and Password field. A user shall be able to login as an Administrator or Guest. Guest authorization shall be configurable for specific system operations. The software shall offer a full multi-user authorization process as follows:
 - a. User groups shall be created once globally and shall appear in all recorders and workstations connected to the network.

- b. Users shall be created once globally and shall be given rights to particular groups.
- c. Groups shall be authorized and given specific access to each unit, permitting "function-specific" profiles.
- d. Users created and authorized for each machine shall be able to login to any recorder and workstation and automatically have their group rights for that machine follow them.
- e. There shall be no virtual limit on the amount of Groups and Users that can be authorized in the software.
- f. The recorder shall allow for each group to be authorized or denied access, per component, to:
 - (1) Login
 - (2) Logout
 - (3) Setup:
 - (a) Network Setup & Site Name
 - (b) User and Group Management
 - (c) Site Authorization
 - (d) Auto Login
 - (e) Macro Create-Edit
 - (f) Alarm Setup
 - (g) Authentication Settings
 - (h) Device Setup
 - (i) Pre & Post Alarm
 - (j) Storage Database Utilities
 - (k) Auto Record
 - (l) Exit to OS
 - (m) RS-232 Setup
 - (n) Priority Setup
 - (o) Registration Setup
 - (p) Manual Record Setup
 - (q) Scheduler for Macros
 - (4) Reports
 - (5) Scheduler/Macro
 - (6) Shutdown/Close
 - (7) Record
 - (8) Stop
 - (9) Change Quality
 - (10) Picture
 - (11) Export
 - (12) Print
 - (13) Controls
 - (14) Live View
 - (15) Playback
 - (16) PTZ
- g. All users created shall be able to login to any unit on the system. A user, given appropriate access, shall be able to remotely configure all components connected to the network. The programming shall include the complete operation of the recorders, including but not limited to:
 - (1) Camera titles
 - (2) Alarm conditions
 - (3) System reports
 - (4) PTZ control
 - (5) Relays

(6) Alarms

14. The recorder shall also offer a GUI capable of complete recorder configuration and operation. This capability is comprised of monitoring, recording and playback. Sub-features such as defined areas for video display and control, toolbars, site and device trees, video controls, and dialog areas shall be provided. Configuration of the system shall include setup of:
 - a. Camera and alarm names
 - b. Network parameters
 - c. Users and Groups
 - d. Data storage allocation
 - e. Macro programming
 - f. Scheduling, display and alarm notification
 - g. Pre/post alarm recording
 - h. Backup utility
15. The Main Window shall provide a multi-channel display area containing up to 16 connected cameras and microphones, a Site and Device Tree, a Navigator Window, a Control Dialog Display Area, a Toolbar, a Display Mode Control Area, a Function Control Area, a Video Display Controls Area and an Other Controls Area. Each area shall contain the necessary controls to operate and setup the system.

The Main Window shall provide the following:

- a. Site and Device Tree depicting all components connected to the network.
- b. Within the Site and Device Tree, each recorder shall be depicted with all connected devices such as:
 - (1) Cameras connected, differentiating between PTZ and fixed cameras.
- c. A multi-screen display area that allows for screen displays of:
 - (1) Single camera
 - (2) Quad
 - (3) 3x3
 - (4) 4x4
 - (5) 6-way
 - (6) Full screen of any of the above selected multi-screen displays shall allow for the viewing of the particular multi-screen in full screen mode by hiding the graphical user interface.
- d. Access to all Programming menus.
- e. User selectable resolution shall include capture sizes of:
 - (1) 320 x 120 pixels, 384 x 144, PAL
 - (2) 320 x 240 pixels, 384 x 288, PAL
 - (3) 640 x 240 pixels, 768 x 288, PAL
 - (4) 640 x 480 pixels, 768 x 576, PAL
 - (5) Normal-MPEG4 type
 - (6) Continuous recording JPEG
- f. On demand recording of video currently viewed shall allow for the recording of any camera from any recorder connected to the network.
- g. Viewing of live cameras shall be performed by:
 - (1) Clicking on the desired camera.
 - (2) "Drag-and-Drop" operation of cameras from the Site and Device Tree to the appropriate multi-screen quadrant.

- (3) "Drag-and-Drop" operation of the recorder from the Site and Device Tree to the appropriate multi-screen.
 - (4) The recorders and workstations shall permit the viewing of live video from:
 - (a) The locally connected cameras.
 - (b) Any camera connected to any recorder on the network.
 - (c) A mix of locally connected cameras and cameras connected to other recorders.
 - h. The recorder shall allow for complete duplicate recording over the network.
 - i. All recorders shall be able to simultaneously record all cameras physically connected to recorders at 240 fps at 640 x 480 (768 x 576, PAL) resolution (depending on recorder utilized) plus a minimum of equal amount of frames received from one or multiple units connected to the network, without any reduction in quality.
- 16. The Site and Device Tree shall provide a physical list of all known network site areas and connected cameras, PTZ cameras and microphones. The cameras, PTZ cameras and microphones shall be represented by graphical symbols. Components in the Site and Device Tree shall be selectable and configurable. PTZ controls shall offer:
 - a. When a dome camera is selected, an operator shall be able to:
 - (1) Control Pan, Tilt, Zoom, Iris and Focus.
 - (2) Execute preset positions.
 - (3) Program preset positions.
 - (4) Complete programming of menus embedded in the selected dome.
 - (5) All PTZ programming and control shall be achieved remotely without requiring an operator to be physically located at the recorder the PTZ is connected to.
 - (6) PTZ control shall be performed on the video screen without the need for an operator to click on any arrows depicting direction of the device to be moved.
 - (7) The PTZ control shall be fully variable and shall permit an operator to obtain higher pan and tilt speeds by simply clicking-and-dragging the mouse cursor on the video screen.
- 17. The Navigator Window shall provide all function buttons necessary to access the video on-screen. The Navigator Window shall depict, in a notepad style, the following:
 - a. All recorders connected to the network.
 - b. All workstations connected to the network.
 - c. All video previously recorded on any recorder on the network.
 - d. Video retrieval shall be performed by:
 - (1) Selecting the device (recorder or workstation) that video was previously stored on.
 - (2) Selecting the cameras to be played back.
 - (3) By "drag-and-drop", similar to the live view, selected cameras are inserted into the multi-screen displays so that an operator can view a mix of previously recorded cameras and live video on the same screen.
 - (4) When cameras are selected for playback, the notepad shall provide a graphical interface depicting bars that

- indicate video previously recorded as well as all alarmed video.
- (5) Any recorders on the network shall be capable of playing back, by utilizing the multi-screen displays, a mix of videos previously recorded on any other recorder on the network.
 - (6) The playback interface shall offer the ability to playback cameras:
 - (a) One by one.
 - (b) Time synchronized (exact time line that the cameras were recorded in).
 - (c) As recorded episodes using the Museum Search feature.
 - (d) Record them as *.avi files to the storage location.
18. The Control Dialog Display Area shall provide a space to work in conjunction with the Other Controls Area. When one of the Other Controls is selected, the corresponding button palette shall appear in this area.
19. The Toolbar shall provide access to all major functionality of the system. The Schedule/Macro, Reports, Setup, Logout and Shutdown buttons shall be accessible in this area. The Schedule/Macro button allows the running of pre-configured combinations of camera, sensor and PTZ programmed routines. The Reports button shall allow the viewing and printing of system status reports. The Setup button shall allow configuration of the system components, authorizations, sites, authentication, utilities and schedules/macros. The Logout button shall allow leaving the system without closing the software.
- Access to programming and more advanced screens shall be done by means of an immobile, permanently-docked toolbar located on the top of the screen.
20. The Display Mode Control Area shall provide a palette of buttons to select and modify the number of video channels displayed and audio channels monitored or recorded simultaneously. It shall include but not be limited to:
- a. Single camera
 - b. 2x2
 - c. 3x3
 - d. 4x4
 - e. 6-way
 - f. All multi-screen displays shall be available in live, playback and mix of live-playback cameras.
21. The Function Control Area shall provide a palette of controls to enable or disable the video and audio recording as well as any currently running macros in the system. Alarm processing shall include but not be limited to:
- a. External alarms.
 - b. Sensor alarms shall have the ability to be tagged as follows:
 - (1) Intrusion Alarms
 - (2) Motion Detector Alarms
 - (3) Smoke Detector Alarms
 - (4) Perimeter Detector Alarms
 - (5) Fire Alarms

- c. Other types of Detector Alarms.
 - d. Camera Alarms shall included but not be limited to:
 - (1) Video Motion Alarms.
 - (2) Video Loss Alarms.
 - e. An authorized user shall link alarm conditions to preprogrammed macros to further extend the usability of the system.
 - f. Alarm scheduling shall include but not be limited to:
 - (1) Distinct schedules each including:
 - (a) Beginning and end time for when each alarm is active.
 - (b) Day of the week for when an alarm is active.
22. The Video Display Controls Area shall provide a palette of buttons to set the picture quality (resolution) and refresh mode of the live video display. A 4-position bar shall allow the quality setting.
 23. The Other Controls Area shall provide a palette of buttons that only become active when a valid device is selected from the Site and Device Tree. When active, the selection of these buttons shall cause the Control Dialog Display Area to display additional control information. The Other Controls are Playback, PTZ, Controls, Print, Export and Picture.
 24. There shall be several high-level configuration features allowing custom setup of the system. The System Configuration feature shall be comprised of a Main Settings Menu. This menu shall allow setup of the network and sites, macros, devices, authorization, Alarms, Auto Login, Schedules, Auto Record, Storage Database Utilities, Authentication, Protocol Controls, Manual Record, Registration and Picture Quality.
 25. The network and sites configuration shall be performed using a dedicated set of screens. The network portion of this setup shall allow setup of a system Nucleus and Backup Nucleus. In addition, one system shall have the ability to configure an entire network of IP addresses for all connected systems. The Nucleus shall act as the coordinator of all running system applications. The Backup Nucleus shall act as the hot-standby Nucleus in the event that the primary Nucleus goes offline, providing uninterrupted system functionality. A Network Settings menu shall provide a comprehensive worksheet for each networked device. When all units have been setup, the resulting connected devices shall define the site. The network portion of this setup shall also allow:
 - a. Time synchronization of all components on the network.
 - b. All appropriate networking features including each recorder IP, Subnet and Gateway.
 26. Macro configuration shall be performed using a dedicated set of screens. Macros can be defined for recorded or displayed/played cameras and microphones, command duration, recording location, local viewing, device ID, picture quality, refresh mode, recording rate (fps), related devices (sensors/relays) and alarm activation. Macros shall allow an authorized user to create and schedule software commands that shall include but not be limited to:
 - a. Sequencing cameras, including multi-screen displays, in a local and remote recorder.
 - b. Execute Remote Macros existing on recorders currently connected to the network.
 - c. Record various cameras at various frames rates.
 - d. Send alarm condition to any recorder or workstation on the network. By the use of macros an authorized user shall be able to program the destination component of the alarm condition.

- e. An authorized user shall be able to program and execute macros remotely without the need to be physically located at the recorder that the macros will be programmed on.
- f. The Schedule/Macro button allows the running of pre-configured combinations of camera, microphone, sensor and PTZ programmed routines. The Reports button shall allow the viewing and printing of system status reports. The Setup button shall allow configuration of the system components, authorizations, sites, authentication, utilities and schedules/macros. The Logout button shall allow leaving the system without closing the software.
- g. Macro scheduling shall include but not be limited to:
 - (1) Day of the week when the particular macro is active.
 - (2) Start and end time for when a macro is active.
 - (3) If a macro is to run continuously or not.
 - (4) A macro shall be able to run every:
 - (5) 5 min, 10 min, 1/4 Hour, 1/2 Hour, 3/4 Hour, 1 Hour, 2 Hours, 3 Hours, 4 Hours, 6 Hours, 8 Hours, 12 Hours.
 - (6) A macro shall be able to be scheduled to run for 1-256 cycles.
- 27. Device configuration setup shall have the ability to configure system recognition and operation. Valid devices shall be cameras (with PTZ), and sensors. All devices shall be assigned a unique ID number and title descriptor. Devices shall also be setup for specific communications protocol and supported with existing manufacturer's drivers where applicable.
- 28. Authorization rights setup shall be performed using the Site Authorization screen. Group and user rights shall be available to configure, by specific site. Rights shall provide authority to perform all system functions.
- 29. Alarm configuration shall be performed using system macros. Alarms shall be programmed to annunciate under the conditions specified in the macro. Alarms shall be triggered by physical sensors, detected video loss, detected video motion, or messages sent over the network.
- 30. Storage Database Utilities shall allow setup and usage of detected hard disks locally and remotely. Any networked computer shall be a candidate to add to the storage database. Once established, any recorder shall use established hard disks for recording data.
- 31. Authentication shall be configured using the Authentication Settings screen. Authentication shall be established by site and affect the destination video. A check box shall be available to enable video authentication symbol (A). This symbol shall verify that the video generated is authentic.
- 32. Sequence sessions shall be configured using the Create & Edit Sequence screen. Sequences shall be a form of macros that when run, allow selected cameras to display for desired times in a sequence.
- 33. Operation of the system shall be facilitated by the use of a monitoring screen whereby a security operator can perform a full scope of surveillance duties using a mouse and keyboard.
- 34. The recorder shall be an Intel Pentium IV processor running Microsoft Windows XP Embedded. There shall be a variety of hard disk sizes from 200 to 900 GB. The front panel shall contain a key-locked user door making accessible a CD-RW drive, removable hard drive, 3.5 in. floppy

- disk drive, power switch, keyboard port and mouse port. The front panel shall also contain 16-channel status LEDs.
35. The recorder shall also be equipped for installation in a standard 19 in. (482 mm) rack mount with carry handles. The rear panel shall contain 16 video input ports, power switch, 4 USB connectors, 1 serial port, relay screw terminal block, VGA monitor port, 1 network port and 2 16-channel video looping ports.
 36. The recorder shall have a nominal system live, playback and transport video rate of 240 fps. This rate shall be divided, by configuration, among the total camera inputs. It shall have 4 levels of resolution with 2 levels of compression comprising 8 quality levels. The maximum displayed resolution shall be 640 x 480 (768 x 576, PAL) pixels per image, scalable for speed and quality. The supported, and automatically detected, video formats shall be NTSC, PAL, EIA and CCIR.
 37. The recorder shall be 7.0 inches (178 mm) high (4 RU), 19.0 inches (482 mm) wide and 17.75 inches (450 mm) deep. It shall weigh 40 lb (18 kg). It shall have a screened steel case construction and be finished in black color.
 38. Each DVR shall be provided with a computer keyboard and three-button mouse.
 39. The Interview Video and Audio recorder shall be Vicon Industries model KE240-16-xxx or approved equal.

D. Video Monitors:

1. 17-Inch LCD Flat Panels:
 - a. The monitor shall be a state-of-the-art Active Matrix (TFT) computer monitor usable with any PC-type computer. Its compact size and small footprint shall make it suitable for any situation where a high quality picture is required within a small space.
 - b. The monitor shall have a 17-in (432 mm) viewable screen and a crisp 0.264 mm pixel pitch. It shall display 16.7 million colors in a maximum 1280 x 1024 pixel pallet in a horizontal viewing range of 140 deg. It shall be compatible with Windows™, Mac, Linux and OS/2 operating systems. It shall also well suited for rack mounting on a shelf and incorporated into any KVM equipment.
 - c. The monitor shall provide onscreen adjustments of Auto, Brightness, Contrast, H/V Position, Clock, Phase Color Control, OSD Language and Miscellaneous functions. It shall also support VESA Power Management and Plug & Play utilities. It shall use a standard DB-15 VGA type connector for video input and supports a universal power input of 100 - 240 VAC, 50/60 Hz. The monitor shall be equipped with a power supply, video cable, software drivers and necessary documentation.
 - d. The monitor shall have the following mechanical specifications:
 - (1) Mounting: Wall mount using VESA compliant LCD wall mount bracket with monitor tilt feature. Contractor shall confirm and ensure compatibility.
 - (2) Dimensions: Height: 16.3-in. (369 mm).
 - (3) Width: 16.3-in. (414 mm).
 - (4) Depth: 6.7-in. (170.5 mm).
 - (5) Weight: 10.8-lb. (4.9 kg).

- (6) Construction: Metal and plastic.
- (7) Color: Black.
- e. The monitor shall be Vicon Industries model number VN-17FLT or approved equal.

E. Computer Workstations:

1. Computer workstations shall be provided at locations as indicated on drawings and schedules.
2. Computer workstations shall meeting or exceed the following criteria:
 - a. Processor: Intel Xeon 3.00GHz, 1MB L2 Cache
 - b. Operating System: WindowsXP™ Professional, SP2 with Media
 - c. Memory: 1GB, DDR2 SDRAM, 400MHz, ECC
 - d. Keyboard: Standard, PS/2
 - e. Monitor: Dell 20-inch Ultrasharp™ 2005FP Widescreen VGA/DVI
 - f. Graphics Card: 128MB PCIe x16 ATI FireGL V3100, Dual VGA or DVI+VGA Capable
 - g. Hard Drive: 250GB SATA, 7200 RPM
 - h. Mouse: 3-Button, PS/2
 - i. CD-Drive: 48XCDRW and 16XDVD+/-RW
 - j. Sound Card: Sound Blaster Audigy™ 2(D) w/Dolby Digital 5.1 & IEEE-1394
 - k. Speakers: Dell AS500 Sound Bar for Flat Panels
3. Computer workstations shall be Dell 670 series complete with 20-inch wide screen LCD flat panel or approved equals.

F. Master Workstation Software Packages:

1. Master workstation software shall be provided and loaded on each security computer workstation as noted on drawings.
2. An additional (10) full software packages shall be provided to the Owner for loading on their computers as they desire.
3. The Digital Video Recording and Management Network Software shall meet the requirements of business and government surveillance applications. The software shall be unique and power a line of Digital Video Recorders, Servers and Workstations. The Software shall be available on CD-R format and provide a complete and comprehensive application for the operation and maintenance of the video surveillance system. It shall provide full live digital video and audio surveillance over a standard 100Base-T network by the use of a GUI incorporating video display areas, toolbars, control palettes, and site/device trees.
4. The Software shall also be available preloaded in a Workstation. This workstation shall be a pre-configured state-of-the-art PC ready to review and record video over the LAN and WAN (Internet).
5. The software shall offer network connectivity to other family components that share all video and control data over the Ethernet network. The number of network-connected components is only limited to the number of assigned IP addresses.
6. The software, without any degradation to video quality, shall simultaneously offer:
 - a. 16-Channel continuous video playback.

- b. 16-Channel video playback transmission to the Ethernet network.
 - c. 16-Channel continuous video receiving from the Ethernet network.
 - d. User selectable video archiving of pre-existing recording.
- 7. The operating system of the software shall be Microsoft® WindowsXP™ Professional.
 - a. Network Setup: Standard network protocol type using IP addressing scheme.
 - b. Site Authorization: Server can be setup using remote recorder or workstation GUI. Site name and authorization can be established by User and Group. Permissions can be assigned for macro create & edit, alarm setup, Authentication, Reports and System Status.
 - c. Macro Create & Edit: System macros can be added, edited, and deleted using the Server's cameras and detectors. In addition, within macros, alarms can be sent and remote macros run.
 - d. Alarm Setup: Server alarms can be established by adding detectors and configuring motion detection on video. The triggering of the Server's detectors is used to send alarms to remote units. In addition, detectors can be deleted.
 - e. Device Settings: The Server's cameras and sensors can be named. Cameras can be setup as PTZ types and full descriptions can be added.
 - f. Authentication: The video from the Server's cameras can be enabled to view the Authentication status symbol (A) on the displayed video.
- 8. The software shall employ a compression algorithm based on:
 - a. Optimized MPEG4 developed by Vicon Industries Inc.
 - b. User selectable resolution (quality) not requiring a need to restart the application or the digital video recorder.
- 9. The networked system shall be comprised of:
 - a. The software platform.
 - b. Servers (recorders).
 - c. Servers (local recorders).
 - d. Clients (workstations).
- 10. The software installed in both recorders and workstations shall be identical in:
 - a. Graphical User Interface. Requiring that an operator shall need to learn only one interface for both control and programming of the system.
 - b. Functions. Offering the ability to remotely configure most system components from any recorder or workstation.
- 11. The software shall offer features including the simultaneous display, playback, distribution and archive of multiple channel video and audio. It shall collect multiple channels of analog video and digitize them for the purpose of display, archive and requested distribution across the Ethernet network. Cameras, microphones and sensors shall be the primary analog input devices. Each channel of video and audio data shall have the capability of being displayed, played back, distributed and archived simultaneously across several servers and clients across the network. Each sensor channel shall support a NO or NC device. The software shall also have full WAN and Internet capability, offering expandability beyond a corporate LAN.

12. Authorization rights setup shall be performed using the Site Authorization screen. Group rights shall be available to configure, by specific site. Rights shall provide authority to perform all system functions. The software shall offer a full multi-user authorization process as follows:
- a. User groups shall be created once globally and shall function in all components connected to the network.
 - b. User group management shall be performed at the Nucleus, locally or remotely with appropriate user access.
 - c. Users shall be created once globally and shall be given rights to selected groups.
 - d. User groups shall given specific access to each server, permitting "function-specific" profiles.
 - e. Users created and authorized for each machine shall be able to login to any component and automatically have their group rights for that machine follow them.
 - f. There shall be no virtual limit on the number of Groups and Users that can be authorized in the software.
 - g. The software shall allow for each group to be authorized or denied access, per component, to:
 - (1) Login
 - (2) Logout
 - (3) Setup:
 - (a) Network Setup & Site Name.
 - (b) User and Group Management.
 - (c) Site Authorization.
 - (d) Auto Login.
 - (e) Macro – Create & Edit.
 - (f) Alarm Setup.
 - (g) Authentication Settings.
 - (h) Device Setup.
 - (i) Pre & Post Alarm.
 - (j) Storage Database Utilities.
 - (k) Auto Record.
 - (l) Exit to OS.
 - (m) RS-232 Setup.
 - (n) Priority Setup.
 - (o) Registration Setup.
 - (p) Manual Record Setup.
 - (q) Scheduler for Macros.
 - i) Enable/Disable Scheduler.
 - (r) Reports.
 - i) System Status.
 - ii) Alarm History.
 - iii) Recording Status.
 - (s) Scheduler/Macro
 - i) Run Macro.
 - ii) Stop Macro.
 - iii) Stop all Macros and Scheduler.
 - iv) Resume Scheduler.
 - v) Show Macro.
 - (t) Shutdown/Close.
 - (u) Record.
 - (v) Stop.

- (w) Change Quality.
- (x) Picture.
- (y) Export.
- (z) Print.
- (aa) Controls.
- (bb) Live View.
- (cc) Playback.
- (dd) Play.
- (ee) Create Archive.
- (ff) AVI Export
- (gg) Remove Archive.
- (hh) Museum Search.
- (ii) Device Data Retrieval.
- (jj) PTZ
 - i) Control Buttons.
 - ii) Preset Settings.
- (4) All users created shall be able to Login to any workstation on the system.
- h. A user, given appropriate access, shall be able to remotely configure all connected recorders and workstations to the network. The programming shall include the complete operation of the recorders.
- i. The Main Window shall provide the following:
 - (1) The Site and Device Tree depicting all recorders, servers and workstations connected to the network.
 - (2) Within the Site and Device Tree, each unit shall be depicted with all connected devices such as:
 - (a) Cameras connected, differentiating between PTZ and fixed cameras.
 - (b) Microphones.
 - (c) Sensors.
 - (3) A multi-screen display area that allows for screen displays of:
 - (a) Single Camera
 - (b) Quad
 - (c) 3 x 3
 - (d) 4 x 4
 - (e) 6-way
 - (f) Full screen of any of the above selected multi-screens shall allow for the viewing of the particular multi-screen in full screen mode by hiding the graphical user interface.
 - (4) PTZ Controls:
 - (a) When a dome camera is selected, an operator shall be able to:
 - i) Control pan, tilt, zoom, iris and focus.
 - ii) Execute preset positions.
 - iii) Program preset positions.
 - iv) Complete programming of menus embedded in the selected dome.
 - v) All PTZ programming and control shall be achieved remotely without requiring an operator to be present at the

- vi) PTZ control shall be performed dynamically onscreen, not requiring an operator to click on arrows to move the PTZ camera.
 - vii) The PTZ control shall be fully variable by dynamically moving the cursor across the video display.
 - (b) Access to all programming menus.
 - (c) User selectable resolution shall include capture sizes of:
 - (d) 320 x 120 pixels, 384 x 144, PAL
 - (e) 320 x 240 pixels, 384 x 288, PAL
 - (f) 640 x 240 pixels, 768 x 288, PAL
 - (g) 640 x 480 pixels, 768 x 576, PAL
 - (h) Normal – Optimized MPEG4 type (partial refresh)
 - (i) Continuous recording – JPEG.
 - (5) On-demand recording of video currently viewed shall allow for the recording of any camera from any recorder connected to the network.
13. Viewing of live cameras shall be performed by:
 - a. Clicking on the desired camera to be placed in a predefined multi-screen space.
 - b. “Drag-and-drop” operations of cameras from the Site and Device Tree to the appropriate multi-screen space.
 - c. “Drag-and-drop” operation of the server/recorder from the Site and Device Tree to the appropriate multi-screen space.
14. The software shall permit viewing of live video from any camera connected to any recorder on the network.
15. The software shall allow for duplicate recording over the network.
16. All workstations shall be able to simultaneously record:
 - a. All cameras physically connected to recorders at a maximum of:
 - (1) 120 fps at 640 x 480 pixel resolution, 768 x 576, PAL
 - (2) 240 fps at 640 x 480 pixel resolution, 768 x 576, PAL
17. The Navigator Window shall graphically display recorded video. It shall contain all function buttons necessary to access the video on-screen. These functions include but are not limited to:
 - a. A scalable timeline shall be available to define “from” and “to” time/date intervals of video and audio.
 - b. Cameras and microphones shall be selected from the Navigator Tree and displayed in the timeline.
 - c. The display mode shall be selected from a palette to configure the number of cameras played back.
 - d. A “Create AVI” button shall be used to create an AVI type file of the selected single camera video segment.
 - e. A “Museum Search” button shall be available to search selected video segments for “Area of Interest” AOI events using a scalable sensitivity setting.
 - f. A Play button shall be available to display the Main Window with the Video Display Area containing the selected video segments ready for review.
18. Video retrieval in the Navigator Window shall be performed by:

- vi) PTZ control shall be performed dynamically onscreen, not requiring an operator to click on arrows to move the PTZ camera.

- vii) The PTZ control shall be fully variable by dynamically moving the cursor across the video display.

(b) Access to all programming menus.

(c) User selectable resolution shall include capture sizes of:

(d) 320 x 120 pixels, 384 x 144, PAL

(e) 320 x 240 pixels, 384 x 288, PAL

(f) 640 x 240 pixels, 768 x 288, PAL

(g) 640 x 480 pixels, 768 x 576, PAL

(h) Normal – Optimized MPEG4 type (partial refresh)

(i) Continuous recording – JPEG.

(5) On-demand recording of video currently viewed shall allow for the recording of any camera from any recorder connected to the network.

13. Viewing of live cameras shall be performed by:

- a. Clicking on the desired camera to be placed in a predefined multi-screen space.

b. “Drag-and-drop” operations of cameras from the Site and Device Tree to the appropriate multi-screen space.

c. “Drag-and-drop” operation of the server/recorder from the Site and Device Tree to the appropriate multi-screen space.

14. The software shall permit viewing of live video from any camera connected to any recorder on the network.

15. The software shall allow for duplicate recording over the network.

16. All workstations shall be able to simultaneously record:

a. All cameras physically connected to recorders at a maximum of:

(1) 120 fps at 640 x 480 pixel resolution, 768 x 576, PAL

(2) 240 fps at 640 x 480 pixel resolution, 768 x 576, PAL

17. The Navigator Window shall graphically display recorded video. It shall contain all function buttons necessary to access the video on-screen.

These functions include but are not limited to:

- a. A scalable timeline shall be available to define “from” and “to” time/date intervals of video and audio

b. Cameras and microphones shall be selected from the Navigator Tree and displayed in the timeline

c. The display mode shall be selected from a palette to configure the number of cameras played back

d. A "Create AVI" button shall be used to create an AVI type file of the selected single camera video segment

- e. A "Museum Search" button shall be available to search selected video segments for "Area of Interest" AOI events using a scalable sensitivity setting.

f. A Play button shall be available to display the Main Window with the Video Display Area containing the selected video segments ready for review.

18. Video retrieval in the Navigator Window shall be performed by:

- a. Selecting the Display Mode for required number of cameras.
 - b. Selecting the device (recorder or workstation) that video was previously stored on or archived to.
 - c. Selecting the cameras and microphones to be played back.
 - d. By "Drag-and-Drop", similar to the live view, selected cameras and microphones are inserted into the multi-screen displays so that an operator can view a mix of previously recorded cameras and live video on the same screen.
 - e. The timeline shall provide a graphical interface depicting color-coded bars that indicate video previously recorded as well as all alarmed video and audio.
 - f. Any recorders on the network shall be capable of playing back, by utilizing the multi-screen displays, a mix of videos previously recorded on any other server on the network, or archived.
 - g. The Navigator Window shall offer the ability to playback cameras:
 - (1) One by one.
 - (2) Time synchronized (precise timeline the cameras were recorded in).
19. Access to programming and more advanced screens shall be done by means of an immobile, permanently docked toolbar located on the top live screen. The Toolbar shall provide access to the following major functionality of the system:
- a. The Scheduler/Macro.
 - b. Reports.
 - c. Setup.
 - d. Logout and Shutdown buttons.
20. The software shall provide an advanced method for creating and executing extensive software commands. This shall be achieved by the use of macros. Macro configuration shall be defined for recorded cameras and microphones, command duration, recording location, local viewing, device ID, picture quality, refresh mode, recording rate (fps), related devices (sensors) and alarm activation.
21. Macros shall allow an authorized user to create and schedule software commands that shall include but are not limited to:
- a. Sequencing cameras, including multi-screen displays, in a local and remote recorder.
 - b. Execute remote macros existing on recorders currently connected to the network.
 - c. Record cameras at different qualities and frame rates from any recorder on the network.
 - d. Send alarm condition to any recorder and workstation on the network. By the use of macros, an authorized user shall be able to program the destination component of the alarm condition.
 - e. An authorized user shall be able to program and execute macros remotely without the need to be physically located at the recorder that the macros will be programmed on.
 - f. The Schedule/Macro button, shall allow the running of pre-configured combinations of camera, sensor and PTZ programmed routines.
22. Macro scheduling shall include but is not limited to:
- a. Days of the week when a macro is active.
 - b. Start and end time for when a macro is active.
 - c. If a macro is to run continuously or not.

- d. A macro shall be able to run every:.
 - e. 5 min, 10 min, 1/4 Hour, 1/2 Hour, 3/4 Hour, 1 Hour, 2 Hours, 3 Hours, 4 Hours, 6 Hours, 8 Hours, 12 Hours.
 - f. A macro shall be able to be scheduled to run for 1-256 cycles.
- 23. The Display Mode Control Area shall provide a palette of buttons to select and modify the number of video channels displayed, monitored or recorded simultaneously. It shall include but is not limited to:
 - a. Single camera
 - b. 2 x 2
 - c. 3 x 3
 - d. 4 x 4
 - e. 6-way
 - f. All multi-screen displays shall be available in live, playback and mix of live-playback cameras. In addition, all multi-screen modes shall be affected by the Expand mode. The expand mode shall hide the GUI and offer the currently displayed multi-screen in a full screen format. Each display mode shall have a default record sized and quality. By selecting a check mark in the "Recording and Display Quality" screen, the record (1,5,6,7) quality shall be chosen from the button palette on the Main Window.
- 24. The network and sites configuration shall allow:
 - a. Setup of a system Nucleus and Backup Nucleus. The Backup Nucleus shall act as the hot-standby Nucleus in the event that the primary Nucleus goes offline, providing uninterrupted system functionality. A Network Settings menu shall provide a comprehensive worksheet for each networked device. When all units have been setup, the resulting connected devices shall define the site.
 - b. Time synchronization of all components on the network.
 - c. All appropriate networking features including, each server IP, Subnet and Gateway.
- 25. Device configuration shall have the ability to be configured for system recognition and operation. Valid devices shall be:
 - a. Cameras, fixed or with integrated PTZ.
 - b. Microphones.
 - c. Sensors.
 - d. All devices shall be assigned a unique ID number and title descriptor. PTZ cameras shall be setup for RS-422 protocol and supported with existing manufacturer's drivers where applicable.
- 26. Storage Database Utilities shall allow setup and usage of detected hard disks locally. Any networked recorder, workstation or server shall be a candidate to add to the picture database. Once established, any recorder shall use established hard disks for recording data.
- 27. Authentication shall be configured using the Authentication Settings screen. Authentication display shall be configured by site and affect the destination video. A check box shall be available to enable video authentication and view the status of the video generated. The video authentication scheme shall utilize a 128 bit MD5 algorithm.
- 28. Authentication shall be configured using the Authentication Settings screen. Authentication shall be established by site and affect both the source and destination of video. A check box shall be available to

- enable video authentication and view the status of the video generated. The video authentication scheme shall utilize a 128 bit MD5 algorithm.
29. The software shall be installed on an appropriate workstation computer running a Microsoft® Windows® XP/2000 operating system. When installed and run, the application shall display a Main Window and Login Window, where all configuration and operation begins.
 30. The login window shall consist of a User Name and Password field.
 31. Configuration of the system shall include setup of:
 - a. Remote cameras and alarm names.
 - b. Users and Groups.
 - c. Data storage allocation.
 - d. Macro programming.
 - e. Scheduling, display and alarm notification.
 - f. Remote pre/post alarm recording.
 - g. Backup utility for setup configuration.
 32. The software shall be provided on CD format in a suitable case.
 33. The software shall be Vicon Industries Model VN1000 or approved equal fully compatible with Manufacturer's components specified.

G. Interior Fixed In-Ceiling Cameras and Enclosures:

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. The fixed camera dome shall incorporate a fixed camera and vari-focal lens combination. The camera domes shall be available for indoor in-ceiling mounting configurations. Standard or high-resolution color or day/night cameras shall be available with a choice of manual vari-focal or auto-iris vari-focal lenses; the camera shall include an isolated power supply. A smoked lower dome shall be included. A pendant housing option shall be available.
3. The camera position shall have a four direction adjustment, allowing for adjustment of pan, tilt, vertical height in the dome and lens rotation (roll), for any angle of view required. The color camera versions shall accept 24 VAC and shall offer line lock capability. The color cameras shall be a 1/3-inch format camera; the day/night camera shall be a 1/4-in. format. The color cameras shall have 330 TV lines resolution and 0.07 fc (0.8 lux) sensitivity (standard) or 480 TV lines resolution and 0.07 fc (0.8 lux) sensitivity (high resolution). The day/night camera shall have 480 TV lines resolution (color) or 580 TV lines (mono); sensitivity shall be 0.07 fc (0.8 lux) for day or 0.009 (0.1) for night. All cameras shall have electronic shutter and shall be available with a 2.6-6 mm manual or auto-iris vari-focal lens. Models shall be available for both coaxial cable or twisted pair (UTP) video transmission.
4. The in ceiling camera dome shall have the following mechanical specifications:
 - a. Dimensions: Height, 3.0 in. (76 mm) below the ceiling and 4.1 in. (104 mm) above the ceiling.
 - b. Total Diameter: 6.2 in. (157 mm)
 - c. Dome Diameter: 5.25 in. (133 mm).
 - d. Weight: Approximately 2.25 lb (1.02 kg).
5. The in-ceiling fixed camera dome system shall be Vicon Industries Surveyor4 In-Ceiling Fixed-Position Camera Dome series or approved equal.

B. Exterior PTZ Pendant Cameras and Enclosures:

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. The motorized dome shall have internal CPU-circuitry and provision for external programming via standard RS-422/485 protocol or enhanced VicoaxII protocol. This circuitry shall provide for an external power supply input, four alarm inputs, one relay output and communications wiring.
3. Alarm inputs shall be individually programmable for their functional state (enabled or disabled), reporting state (report on or off), active state (high or low), acknowledge mode (manual or automatic), automatic acknowledge dwell time control, set and reset action (action when triggered or reset) and displayed title text. The relay output shall be programmable for its power-on state (on or off), output type (momentary or latching) and displayed title text.
4. Programmable titling shall be provided for the camera and every preset position, alarm, relay, and sector. Titles shall be enabled or disabled individually or globally. The overall position of the titles and display frame position shall be programmable.
5. There shall be 79 programmable preset positions available, each having a variable preset solve speed and accuracy of 0.3°. The dome's 360 degree view shall be programmable for a maximum of 16 sectors. Each sector shall have the capability to be blanked out (no video display). The number and size of sectors shall be programmable and have a custom title.
6. There shall be eight tours available with 32 steps per tour. Tour steps shall include preset positions with speed control, relay control, alarm acknowledge, save/recall camera status, repeat tour, call another tour, call an auto-tour and dwell timing control. There shall be two auto-tours available with 360 pan, tilt and zoom functions per auto-tour. Timing shall be dynamic or as is actually programmed with the joystick and push buttons.
7. Pan and tilt functions shall be externally controlled, continuously variable and programmable to be enabled or disabled. There shall be an auto-pan feature and it shall be programmable for its functional setting (enabled or disabled). Maximum manual pan and tilt speeds shall be programmable. Maximum pan speed shall be 250 degrees/sec and maximum tilt speed shall be 110 degrees/sec. Pan and tilt speeds shall also be scalable to the zoom setting. The zoom function speed shall be externally controlled using three settings, low, medium and high.
8. The camera-lens module shall be a 1/4 inch, high-resolution color type with ExView™ technology. Camera sensitivity shall be between 0.001 fc (0.01 lux) to 0.002 fc (0.03 lux), depending on the model. The lens on the day/night cameras shall have a maximum optical zoom setting of 23x and a maximum digital zoom setting of 8x for a total zoom setting of 184. Lens focal length shall be a maximum of 3.6-82.8 mm for the day/night cameras with a maximum aperture of f1.6. The digital zoom shall be programmable for its functional setting (enable/disable). An auto-iris function with a manual override feature and an auto-focus function with functional setting control (enable/disable) shall also be provided. In addition, the camera shall provide high level, programmable functions. The autoiris and AGC shall be adjustable. The shutter speed shall be automatic or manual. The automatic shutter speed shall work

with an auto exposure feature. This feature can be set to operate with a fully automatic shutter speed or a fixed, selectable, linear speed. These features are called exposure priority or shutter priority. All color cameras shall have white balance gain using red and blue scales. Backlight compensation shall be programmable for its relative setting using a tuning value scale. Video line locking shall be provided with an internal crystal clock or a programmable vertical phase scale.

9. The outdoor pendant model shall include a molded thermoplastic sunshield and additional environmental control.
10. The camera dome system shall have the following mechanical specifications:
 - a. Dimensions:
 - (1) Indoor Ceiling
 - (a) Diameter: 7.1-in. (180 mm).
 - (b) Height: 8.8-in. (223 mm).
 - (2) Indoor Pendant
 - (a) Diameter: 8.0-in. (203 mm).
 - (b) Height: 9.2-in. (234 mm).
 - (3) Outdoor Pendant
 - (a) Diameter: 9.0-in. (228 mm).
 - (b) Height: 9.3-in. (236 mm).
 - (4) Lower Dome
 - (a) Diameter: 5.9-in. (150 mm).
 - b. Weight:
 - (1) Indoor Ceiling: 4.5 lb (2.0 kg).
 - (2) Indoor Pendant: 5.7 lb (2.6 kg).
 - (3) Outdoor Pendant: 6.5 lb (2.9 kg).
 - c. Construction: Plastic, aluminum and steel.
 - d. Color: White housing, black trim ring, gray (smoked), chrome or gold dome for the indoor version, clear dome for the outdoor version.
11. The camera dome system shall be Vicon Industries Surveyor2000 models or approved equal.

C. Interior and Exterior Fixed Pendant Cameras and Enclosures:

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. Cameras shall be the same as interior fixed but installed with appropriate enclosure based on interior or exterior use.

D. Interior Fixed High-Security Corner Cameras and Enclosures:

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. The housing shall be a high-security corner- or wall-mounted unit. It shall be constructed of stainless steel and steel and the window shall be Lexan polycarbonate; the finish shall be brushed stainless steel. The construction shall provide protection from radio frequency (RF) interference.
3. The housing shall have tamperproof screws. The housing shall be provided with a built-in camera/lens. NTSC and PAL versions shall be available. Two versions of each type shall be available: a general

purpose color camera with a 2.8 mm lens and a general purpose color camera with a 4 mm lens.

4. The housing/camera shall have the following mechanical specifications:
 - a. Mounting: Corner.
 - b. Dimensions:
 - (1) Height: 4.0-in. (102 mm).
 - (2) Width: 4.0-in. (102 mm).
 - (3) Depth: 4.25-IN. (102.8 mm).
 - (4) Weight: 2.0-lb. (0.91 kg).
 - (5) Finish: Brushed stainless steel.
5. The corner-mount housing shall be Vicon Industries models V894 or approved equal.

E. Interior Covert Cameras and Enclosures (Primary Camera: PIR type):

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. Cameras shall be color with 1/3-inch interline transfer CCD image sensor, and 525 lines resolution, using NTSC format.
3. Cameras shall be used as primary camera at interview recording rooms.
4. Covert cameras shall be surface mounted on wall using flush mounted 4-inch square electrical back-box with single gang mounting plate.
5. Provide necessary power supply and transformer from 120VAC to 12VDC complete with enclosure mounted above ceiling.
6. The primary covert video cameras shall be GE Security's PIR Color Camera #PN-950-P3, or approved equals.

F. Interior Covert Cameras and Enclosures (Secondary Camera: Flush Mounted):

1. Cameras shall be provided at locations as indicated on drawings and schedules.
2. Cameras shall be color with fixed 3.7mm F2.0 lens, and 380 lines resolution, using NTSC format.
3. Cameras shall be used as secondary (low mounted) camera at interview recording rooms.
4. Covert cameras shall be flush mounted in wall using 4-inch square electrical back-box with single gang mounting plate.
5. Provide necessary power supply and transformer from 120VAC to 12VDC complete with enclosure mounted above ceiling.
6. Provide black decora faceplate.
7. Camera metal frame shall be painted flat black so that entire camera and frame will be dark, allowing the clear lens cover to be used.
8. The secondary covert video cameras shall be NetMedia's SC53 Day/Night Color Camera complete with black decora faceplate or approved equals.

G. Interior Covert Microphones and Enclosures:

1. Microphones shall be provided at locations as indicated on drawings and schedules.
2. Provide line level pressure zone microphone complete with covert faceplate flush mounted in ceiling using 4-inch square electrical back-box with single gang mounting plate.
3. Microphones shall be used at interview recording rooms.

4. Provide necessary power supply and transformer from 120VAC to 12VDC complete with enclosure mounted above ceiling.
5. The covert microphones shall be Louroe's Verifact D-V complete with stainless steel faceplate or approved equals.

H. Microphone Pre-Amp:

1. Provide high quality mic/line preamp with eight separate transformer balanced inputs to allow for individual level control with selectable mic or line inputs.
2. Preamp inputs shall be Euro type connector, balanced low or high impedance.
3. Preamp outputs shall be Euro type connector, balanced low impedance 100 ohms.
4. Power consumption shall be 120 V AC, 60 Hz, 20 W.
5. Each channel shall provide industry standard +48 volts phantom power.
6. Limiter and phantom power shall be user enabled on a per channel basis with dip switches located on the back panel.
7. Pre-Amp shall be rack mountable in one rack unit for an industry standard 19-inch equipment rack.
8. The preamp shall have the following Mic Input settings:
 - a. Frequency Response: 20 Hz to 30 Hz (+/- 1.5 dB).
 - b. Maximum Gain: 65 dB at "max" setting.
 - c. Maximum Input Level: 160 mV (-14 dBu)
 - d. Minimum Gain: 28 dB at "min" setting.
 - e. Minimum Input Level for Full Output: 2mV (-52 dBu).
 - f. Input Impedance: 2 K ohms.
 - g. E.I.N.: 125 dBV (150 ohms, 65 dB gain)
9. The preamp shall have the following Line Setting (high level):
 - a. Maximum Gain: 28 dB.
 - b. Maximum Input for Rated Output: 14.8 volts (+26 dBu)
 - c. Minimum Gain: -10 dB attenuation of input signal.
 - d. Minimum Input Level for Rated Output: 172 mV (-13 dBu)
 - e. Input Impedance: 20 K ohms.
10. The Eight-Channel Preamp shall be Peavey's A/A-8P or approved equal.

I. Pendant Ceiling Mounting Bracket and Hardware:

1. Bracket and Hardware shall be as recommended by Manufacturer based on application.
2. Contractor shall coordinated exact bracket and hardware selection with Architect and Engineer prior to installation.

J. Pendant Wall Mounting Bracket and Hardware:

1. Bracket and Hardware shall be as recommended by Manufacturer based on application.
2. Contractor shall coordinated exact bracket and hardware selection with Architect and Engineer prior to installation.

K. Power Supplies:

1. Power supplies shall be as recommended by Manufacturer based on application and electrical load.

L. Uninterruptible Power Supplies:

1. UPS' shall be as recommended by Manufacturer based on application and electrical load necessary to support all video equipment including DVRs, video monitors, and computer workstations for a minimum of 30 minutes.

M. Equipment Racks:

Provide 19-inch EIA equipment racks as necessary to mount equipment as shown on drawings and schedules. Coordinate exact finish with Architect.

Chatsworth Product Inc. or approved equal.

2.2 VIDEO SURVEILLANCE SYSTEM CABLING AND ACCESSORIES

C. Video Transmission Cable:

Provide coaxial, twisted- pair copper or fibre optic transmission cable as necessary Manufacturer's requirements.

D. Camera Power Cable:

Provide power cables as necessary for camera per Manufacturer's requirements.

E. PTZ Control Cable:

Provide twisted- pair copper or fibre optic control cable as necessary Manufacturer's requirements.

F. Microphone Cable:

Provide shielded twisted pair, line-level mic cable as necessary Manufacturer's requirements.

G. Microphone Cable:

Provide power cables as necessary for microphone per Manufacturer's requirements.

H. Patch Cords:

Contractor shall provide all video-monitor, Cat. 6 data, etc. cables necessary for a complete system.

I. Cable Connectors:

Provide all connectors as necessary to terminate cable per the Manufacturer's

requirements.

J. Baluns and Splitters:

Provide baluns and splitters as recommended by coaxial cable manufacturer for service indicated to meet cable mating and impedance matching requirements.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which video surveillance systems are to be installed, and notify Contractor in writing of conditions detrimental to proper completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION OF VIDEO SURVEILLANCE SYSTEMS

- A. Install video surveillance systems including components where indicated, in accordance with equipment manufacturer's written instructions, in compliance with National Electrical Code, and with recognized industry practices, to ensure that video surveillance systems complies with requirements and serves intended purposes.
- B. Use extreme care in handling, fishing and pulling-in electronic cable to avoid damage to cable and shielding. Avoid excessive and sharp bends.
- C. Install video surveillance system equipment properly to avoid causing mechanical stresses, twisting or misalignment or equipment being exerted by clamps, supports, and cabling.
- D. Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL Standards 486A and B, and the National Electrical Code.

3.3 GROUNDING

- A. Provide equipment grounding connections for video surveillance systems as indicated. Tighten connections to comply with tightening torques specified in UL Standard 486A to assure permanent and effective grounds. Provide grounding conductors for antennas and antenna supporting structures without splices or connections in the conductor. Ensure and demonstrate that resistance to solid earth for signals is less than, or equal to 3 ohms.

3.4 ADJUSTING AND CLEANING

- A. Set field-adjustable video surveillance system components for input voltages, current settings and frequency settings.
- B. Touch-up scratched and marred surfaces to match original finishes; remove dirt and construction debris.

3.5 DEMONSTRATION

- A. Upon completion of video surveillance systems components, and after circuitry has been energized with normal power source, test video surveillance systems to demonstrate capability and compliance with requirements including, but not limited to, video output signal strength at outlets selected by Owner. Where possible, correct malfunctioning units at site, then retest to demonstrate compliance, otherwise remove and replace with new units and proceed with retesting.

3.6 TRAINING

- A. The Contractor shall be responsible for coordinating video surveillance system manufacturer to arrange for forty (60) hours of operator and administrative training by a manufacturer representative to representatives of the Owner. The training shall be held at the Owner's facility on a complete system being provided. The training shall include, but not be limited to all operating system procedures, data base functions, applications programs, system configuration, video switching and recording functions, and map graphics generation. All such training shall be videotaped and the tapes provided to the Owner for future in-house training sessions or reviews.
- B. The Contractor shall coordinate with the Owner to provide a training outline and schedule for approval by the Owner.
- C. The Contractor shall be on call during the warranty period to answer any questions the Owner's representatives might have. The Contractor shall maintain time sheets verifying the total hours of training provided. The Owner reserves the right to use any excess training hours, not used by the time of system completion, for future training as requested by the Owner until the total number of training hours has been completed.

END OF SECTION