

TOWN OF TRUMBULL, CONNECTICUT  
BOARD OF EDUCATION  
REQUEST FOR QUOTATION  
INSTALLATION OF ELECTRONIC SECURITY SYSTEM EQUIPMENT

BID # 6024

DUE: DECEMBER 10, 2013 AT 2:00PM

**GENERAL INSTRUCTIONS**

The Town of Trumbull, Connecticut (hereinafter referred to as Town), through the Office of the Purchasing Agent, will accept sealed bids from qualified firms (hereinafter referred to as vendor, contractor, bidder) for the Installation of an Electronic Security System in accordance with the attached specifications and scope of work.

**1. PREPARATION OF BIDS**

- a. Bids shall be submitted by using the enclosed BID PROPOSAL FORM that accompanies this request. Submit one (1) ORIGINAL and one (1) EXACT COPY. Bidders should submit bids in a clear, concise and legible manner to permit proper evaluation of responsive bids.
- b. Bidders may also submit, under separate cover with their proposal, any samples of reports and documents that are necessary to meet the requirements of this bid request.

**2. BID SUBMISSION**

- a. Bids are to be submitted in DUPLICATE and sealed in an envelope clearly marked and addressed as follows:  
Purchasing Agent – Bid – Due: 12/10/13  
Town of Trumbull  
5866 Main Street  
Trumbull, CT 06611
- b. Please be advised that the person signing the formal proposal must be authorized by your organization to contractually bind your firm with regard to prices and related contractual obligations for the delivery period requested.
- c. No oral, telephonic, or faxed proposals will be considered. Corrections, deletions, or additions to the bids may be made by wire, provided such wires are received in correct and comprehensive form prior to the opening time of bids, and confirmed by letter. No telephone corrections, deletions, or additions will be accepted. The Town reserves the right to reject any or all bids, and to waive any or all formalities in connection therewith.

**3. BID TIME**

- a. Bids shall be received at the office of the Purchasing Agent, Town Hall, prior to the advertised hour of opening, at which time all proposals will be publicly opened and read aloud.
- b. A bidder may withdraw a proposal at any time prior to the above scheduled date and time. Any bid received after the above scheduled date and time shall not be considered or opened.

**4. TOWN OPTIONS**

- a. The Town reserves the right to reject any or all bids and to waive any requirements, irregularities, technical defects or service therein when it is deemed to be in the best interest of the Town.
- b. If your proposal does not meet or better the required specifications on all points, which must be outlined in a letter, otherwise it will be presumed that a proposal is in accordance with the required specifications.
- c. The Town of Trumbull-Board of Education reserves the exclusive right to determine whether or not a proposal meets or exceeds the stated specifications.

**5. TAXES**

All purchases made by the Town, and associated with the award of this requirement shall be tax exempt. Any taxes must not be included in bid prices. A Town Tax Exemption Certificate shall be furnished upon request.

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**6. INQUIRIES**

- a. All inquiries regarding this request shall be answered up to close of business December 6, 2013 after which time no additional questions will be accepted. To ensure consistent interpretation of certain items, answers to

questions the Town deems to be in the interest of all bidders will be made available in writing or by Fax as appropriate to all bidders. Inquiries of a technical nature may be directed to Stephen Kennedy (203-452-4306) **Plant Operations, Trumbull Board of Education** [KennedyS@trumbullps.org](mailto:KennedyS@trumbullps.org).

- b. Additionally, after proposals are received, the Town reserves the right to communicate with any or all of the bidders to clarify the provisions of Proposals. The Town further reserves the right to request additional information from any bidder at any time after proposals are opened.
- c. It is the sole responsibility of the responding firm to verify any addendums that may have been issued relating to this request prior to submission of a proposal. Failure to submit a bid or proposal that does not address any changes or addendums may result in a disqualification of a bid submission.
- d. **It is required that bidders visit the location described in the specifications. Measurements and verification of field conditions are the responsibility of the Bidder. Contact the Plant Operations to arrange a time to visit the site (203-452-4306).**

7. **AWARD AND AUTHORITY**

The Town Purchasing Agent will issue notification of award in writing.

8. **PRICING**

- a. Bidders are requested to quote as a complete "Turn Key" installation.
- b. All prices quoted are to be firm for a period of at least 180 days following bid opening.
- c. Special Consideration will be given to responses with extended firm price dates. The Town is always interested in any and all cost reduction opportunities.
- d. Special consideration may be granted to bidders with expedited installation dates.

9. **ASSIGNMENT OF RIGHTS, TITLES, AND INTERESTS**

Any assignment or subcontracting by a bidder, vendor, or contractor for work to be performed, or goods and/or services to be provided, in whole or in part, and any other interest in conjunction with Town procurement shall not be permitted without the express written consent of the Town of Trumbull.

10. **HOLD HARMLESS CLAUSE**

Bidder agrees to indemnify, hold harmless and defend the Town from and against any and all liability for loss, damage or expense which the Town may suffer or for which the Town may be held liable by reason of injury, including death, to any person or damage to any property arising out of or in any manner connected with the operations to be performed under an agreement with the Town, whether or not due in whole or in part of any act, omission or negligence of the Town or any of his representatives or employees.

11. **WORK REGULATIONS AND STANDARDS**

All work activities performed in association with this request must be performed and completed for the Town in accordance with current Federal State and Local regulations. All services performed shall also conform to the latest OSHA standards and/or regulations. Additional regulations and/or standards as listed in the specifications shall apply.

12. **WARRANTIES**

**A copy of all applicable warranties must be submitted in full detail.** A 2 year workmanship warranty and the full manufacturer's warranty, of not less than 1-year, must be provided for all new equipment.

13. **DELIVERY**

- a. Installation shall be scheduled with the BOE Plant Operations Department.
- b. **Special consideration may be given to bidders that can expedite installation.**

14. **CONFLICT OF INTEREST**

No purchase shall be made from nor shall services (other than services as an officer, agent, or employee of the Town) be secured from any officer or employee of the Town, or from any partnership or corporation in which such officer or employee is a partner or officer, or holds a substantial interest, unless such relationship and the fact that such purchase is contemplated shall be made known in writing to the agency making such purchase, and notice thereof posted, for at least five (5) days before such purchase be made, in the office of the agency making such purchase and in a public place in the Trumbull Town Hall.

15. **INSURANCE**

The successful bidder shall provide the Town Purchasing Agent with a Certificate of Insurance before work commences. The Town shall be named as an additional insured with Insurance Company licensed to write such insurance in Connecticut, against the following risks and in not less than the following amounts:

- Worker's Compensation
- Contractor's Public Liability and Property Damage
- Automobile Insurance

General Liability	Each Person	Each Occurrence	Aggregate
Bodily Injury Liability	\$1,000,000	\$1,000,000	\$1,000,000
Property Damage Liability	\$1,000,000	\$1,000,000	\$1,000,000
Personal Injury Liability	\$1,000,000	\$1,000,000	\$1,000,000
Comprehensive Automobile Liability			
Bodily Injury	\$1,000,000	\$1,000,000	\$1,000,000
Property Damage		\$1,000,000	\$1,000,000

The insurance policy must contain the additional provision wherein the company agrees those fifteen (15) days prior to termination, expiration, cancellation or reduction of the insurance afforded by this policy with respect to the contract involved, written notice will be served by registered mail to the Town.

In the event of cancellation, the contractor will cease all operations on or before the effective date of said cancellation and shall not commence work again until he has obtained replacement insurance and has delivered a Certificate of Insurance to the BOE Plant Operations Office.

16. **SPECIFICATIONS –**

- a) Each Bidder will be held responsible to have studied the Specifications, visit the site regarding the proposed work, satisfied itself regarding all existing conditions and measurements, and to have included in the proposal an amount sufficient to cover all work.
- b) Should any Bidder find discrepancies in the Specifications, or be in doubt as to the exact meaning, notify the Town at once. The Town may then, at their option, issue Addenda clarifying same. The Town shall not be responsible for oral instructions or misinterpretations of Specifications.
- c) The Town reserves the right to issue Addenda at any time prior to the Bid Opening. All such Addenda become, upon issuance part of the Specification. Each Bidder shall cover such Addenda in the proposal and shall acknowledge receipt of same on the blank provided therefore. It is the bidders' responsibility to access the Town's website or contact the Town for any addenda that may be issued in conjunction with this bid.
- d) The Town reserves the right to require any or all Bidders to submit statements as to previous experience in performing comparable work; and as to financial and technical organizations and resources available for this work. The mere opening and reading aloud of a bid shall not constitute or imply the Town's acceptance of the suitability of a Bidder or the bid, nor shall possession of Drawings or Specifications constitute an invitation to bid. The competency and responsibility of Bidders as well as the number of working days required for completion will be considered in making an award.

17. **Site Visitation and Inspection of Existing Conditions**

All bidders must visit the sites and inspect the existing conditions.  
Additional site visits may be arranged by calling the BOE Plant Operations office at 203-452-4306 but there is no guarantee that a visit can be arranged outside the scheduled visit.

18. **Addendums**

It is the responsibility of all proposal submitters to verify with the Town if any addendums or changes to this bid have been made. All and any addendums will be posted on the Town of Trumbull – Purchasing Department website. [www.trumbull-ct.gov](http://www.trumbull-ct.gov).

19. **Contractor Qualifications**

Contractor must possess the following qualifications and experience:

- S2 and Milestone certified or approved for installation and maintenance of specified systems
- Must have been established for no less than 10 years
- Must provide references of 3 electronic security system installation projects. References shall demonstrate the following:
  - At least one project similar in scope and complexity
  - One project (or two separate projects) using S2 and Milestone as part of the installation
  - One reference in a school system or similar institution
- Must have a response center and point of dispatch within 50 miles

20. **Bid Form and Pricing**

Contractor must fill out the accompanying Bid Form. Alternate pricing may be provided on a second copy of the bid form with details and/or explanations of the alternate bid included on the form and/or in a letter that does not exceed two (2) pages in length.

21. Diagrams, school addresses, and contact information may be obtained by emailing or calling Stephen Kennedy, TPS Plant Administrator at: 203-452-4306 – [kennedys@trumbullps.org](mailto:kennedys@trumbullps.org)

TOWN OF TRUMBULL, CONNECTICUT  
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INSTALLATION OF ELECTRONIC SECURITY SYSTEM EQUIPMENT

BID # 6024 DUE: DECEMBER 10, 2013 AT 2:00PM  
IP NETWORK-BASED SECURITY SYSTEM

**PART I GENERAL CONDITIONS & SCOPE OF WORK**

1. Current Environment: The Trumbull Public Schools (TPS) has 13 buildings serving approximately 7,000 students. To optimize safety and security, the Trumbull Public Schools is expanding its use of cameras, access control, and related security equipment at all of its facilities. The TPS IT and Plant Operations Departments (Contract Administrators) are seeking a manufacturer-certified Security System Integrator Contractor to:

- Design and build the system using the specifications provided with these bid documents and associated drawings
- Size the system, including servers, and upgrade program software to manage network storage and traffic effectively
- Install new security equipment as specified
- Merge existing equipment into enhanced security hardware and software environments
- Replace servers and software as necessary to support fully integrated systems for both the existing and the new IP cameras and access control systems

The end result will be fully integrated electronic security system using the District's current Milestone and S2 platforms.

- 1.1. The Vendor shall be responsible for IP Cameras, patch cords etc. **Connectivity to the camera locations i.e. switches Cat-6 cable, etc. Will be provided to each camera location by TPS with the exception of the servers.** TPS will terminate and test network wire and switches prior to installation. For the access control equipment the Contractor will supply ALL additional hardware and electronics necessary for the installation including, but not limited to specialized door hardware, low voltage wire, **electrical work**, power supplies, computer peripherals, etc.
- 1.2. Vendor is required to deliver a **complete turnkey system** as a single provider. No part of the Scope of Work (SOW) should be subcontracted to a third-party unless the respondent so designate the intent at the time of submission; receives approval from IT and Plant department administrators; and the third-party has met the required manufacturer certifications.
- 1.3. All work must be seamless to TPS and contractor employees **MUST** wear identification badges, a form of uniform designating vendor name, sign-in when entering a building; and must comply with all other terms and conditions as outlined.
- 1.4. Contractor must be prepared to work after hours whenever work may be disruptive to the school or school building (network, fire alarm, etc.) systems.

**2. Scope of Work (SOW)**

The SOW includes the provisioning, installation and final commissioning of an IP-Based Network Security System, additional access control stations and remote monitoring locations that are fully compatible with the current TPS's IP-Based surveillance and access control systems. This shall encompass compatibility in operation, design, functionality, and manufacturer specification.

- 2.1. Multi-School Environment: The layout and design shall accommodate multiple schools. Each building must be able to operate independent of the others and still meet the requirements of a single integrated system.
- 2.2. Most schools shall be designed to meet the requirements for a single integrated building system and integrated into the TPS network; and requires that the Contractor provide all material, labor, installation, software, hardware, equipment, etc. to integrate the following new equipment into the system:
  - IP Cameras
  - Patch cords, electrical work, low voltage wiring
  - Speakers, microphones, other PC peripherals. Intercom hardware etc.
  - Door hardware, motion detectors, mag locks, power supplies, etc.
  - Access control boxes, nodes, blades, etc.
  - HP Servers

- Additional or upgraded S2 License & Software as necessary
- Additional or upgraded Milestone License(s) & Software as necessary
- Documentation
- Training

2.3. The TPS IT administrators shall facilitate the configuration and integration of the following, and shall work with the Vendor for final commission of the system:

- HP Servers – **Purchased by contractor using WSCA pricing (guaranteed lowest educational pricing) Available through the BOE**
- Switches and Cat-6 Cable – **provided by TPS, tested and verified to all IP camera locations**
- License & Software

## **PART II: VENDOR GENERAL REQUIREMENTS**

### **3. Purchase & Install**

The Vendor shall purchase and install all hardware, including server equipment as outlined herein for the security system and must ensure proper operation for a period of two years from the final acceptance of the system by the Owner. Individual pieces of equipment may carry a longer warranty than two years; and should be so designated at final acceptance. All Hardware shall include material, mounting, wiring, electrical work, peripherals and installation for the following:

- IP Cameras
- S2 boxes and controllers
- Intercom hardware and software
- Panic devices tied into existing burglar monitor system
- Any PC peripherals necessary to enable door intercom /monitoring system
- Cat-6 Cabling as necessary
- Patch Panels
- Patch Cables
- HP Server as noted previously

### **4. Camera Installation**

The Vendor shall refer to the security drawings for the camera locations. Exact placement shall be subject to existing conditions. The contractor will choose the ideal location to meet the District's needs and stated purpose. **At the start of the project, an installation representative of a set of similar installations shall be executed by the contractor and reviewed by the TPS contract administrators for the purpose of setting acceptable installation parameters and verifying the installation meets the specified needs of the district before continuing with the work.** The camera installation will include at a minimum:

- 4.1. Secure mounting in the ceiling or on the wall of all locations in as unobtrusive manner as possible
- 4.2. Protective dome
- 4.3. Use of existing POE cable and switches as noted in specifications and drawings
- 4.4. Programming, focusing, and adjusting of camera to manufactures' and district's specifications
- 4.5. Proper weatherized housing for all exterior cameras
- 4.6. All mounting brackets and other related hardware necessary for installation
- 4.7. Commissioning and licensing of each camera individually and as part of Milestone System
- 4.8. Purchase of HP servers with adequate storage and processing capabilities to run the IP camera system
- 4.9. Any other service, equipment, program, etc. necessary to provide a fully functioning IP Camera Surveillance System other than those items to be specifically provided for by the TPS

### **5. Access Control Installation**

The vendor shall refer to the shop drawings for the access control locations. Each location shall include the necessary electronic locking control mechanisms, hardware, relays, power supplies, etc., to make each door function as part of the S2 system including remote monitoring, latching, programming, release, etc. The access control system will include at a minimum:

- 5.1 All S2 panels, boxes, blades etc. with power supplies etc. as necessary
- 5.2 All wiring from access points to S2 control panels/boxes
- 5.3 **Any electrical work** necessary to provide power to all access control components including, wire, conduit, hardware and controllers

- 5.4 All relays and equipment to make the installation compliant with all applicable fire codes or stipulations including all local requirements
- 5.5 Motion detector door release locations must be reviewed by TPS contract administrators before installation to verify incidental
- 5.6 All card readers and 200 HID Proximity 2 cards
- 5.7 Panic devices, latched, strikes, and associated trim as necessary
- 5.8 Programming and adjusting to manufactures' and district's specifications
- 5.9 As noted on the drawings, pc based monitoring stations including speakers, microphone, handsets/stations, and integrated intercom solution i.e. Aiphone IP intercom system
- 5.10 Any other service, equipment, program, etc. necessary to provide a fully functioning Access Control System other than those items to be specifically provided for by the TPS

## 5. Shop Drawings

Within 14 days of contract award, Vendor must provide shop drawings for access control and panic device systems to reflect cable routing to each MDF/IDF and closet-specific breakdown of the number of ports required for each.

- 5.1. Shop Drawings will be validated by a TPS designated Representative
- 5.2. Camera Schedule & Drawings must be approved prior to Kick-off meeting with TPS Contract Administrators that shall be held within 30 days of contract award.
- 5.3. Errors & Omissions must be identified and approved during Kick-off meeting

## 6. Cameras

The Vendor shall install the camera and housing units as per the manufacturer recommendations to accommodate housings in a secure, vandal resistant manner; and all exposed cabling must be protected in TPS approved conduit.

- 6.1 The digital camera signal will be carried through CAT-6 wiring terminating at a designated patch panel in the nearest MDF/IDF. Cat-6 wire from rack to camera location to be provided by TPS Patch.
  - 6.1.1. Each cable shall be labeled within one foot of the terminating connection with the identifier and location.
  - 6.1.2. Vendor is responsible for patching each camera to the appropriate port provided by TPS. The patch panel shall be labeled with the camera identifier. This label must be printed clearly and not handwritten.
  - 6.1.3 Each camera shall have a an identifying tag affixed in a conspicuous place
- 6.2. The IP cameras will receive power from the nearest PoE switch provided by TPS Department of Technology and placement shall be validated by a TPS designated representative.

## 7. Desktop Clients

Contractor must install or verify the installation of 3 appropriate Milestone clients at each building location unless otherwise noted on drawings or on chart.

## 8. Documentation

The Vendor shall configure the cameras and provide documentation in Excel format that incorporates the following guidelines

- 8.1. Configure IP Cameras with IP Addresses
- 8.2. IP Addresses shall be coordinated through TPS IT department
- 8.3. See camera schedule sample form included within this specification. The schedule shall include the following
  - 8.3.1. Camera Model
  - 8.3.2. IP Address and MAC address
  - 8.3.3. Description (describe physical placement location)
  - 8.3.4. Port Position Number
  - 8.3.5. Numbering scheme
  - 8.3.6 Initial settings for frame rate, resolution, motion sensitivity

## 9. Vendor Deliverables

The Vendor is responsible for installation and demonstrated operability of all IP Cameras, Cat-6 Cable, Recording Servers, all components of the access control system, and final coordination with the TPS Contract Administrators for final commissioning. The final coordination for placement of cameras shall be coordinated with a designated TPS representative.

- 9.1. The Vendor is responsible for providing descriptions to uniquely identify the cameras and access control

hardware after consulting with TPS CA, and the delivery of a copy of the final closeout documentation to the TPS Contract Administrators; in addition to any requirements made by the GC or Electrical contractor; and shall include the following:

- 9.1.1. Placement of camera and access control component icons with descriptions and/or identifiers on CAD Drawings and in PDF format
- 9.1.2. Correlate camera identifiers to a legend that describes location of camera MDF/IDF location with camera identifiers and IP Addresses
- 9.1.3. Detailed summary of IP Addresses correlated to camera identifier submitted in an electronic format

### **PART III: TECHNICAL REQUIREMENTS**

The IP Surveillance system must be designed to insure full compliance with current conditions throughout the district and to afford consistency and manufacturer compatibility for hardware and software; meets current end-user functionality and monitoring guidelines; and insures ongoing support from the Vendor and Manufacturer during the warranty period. All costs associated with provisioning for an alternative system, will be borne by the Contractor. The technical requirements specified herein shall provide for PoE IP cameras, sending video signals via appropriately specified cabling to a network switch; that assures adequate coverage at each school location. The system must be designed for recording servers to provide for access to files, storage of files; and allow for remote access.

#### **10. Color Cameras**

- 10.1. PTZ outdoor camera, mounted on building, Cat-6: weather resistant enclosure, fan/heated, color IP camera with the following minimum features (Noted on drawings as **type A**):
  - 10.1.1. Resolution: 1280 X 960 pixels (minimum) Day/Night camera
  - 10.1.2. 36x optical zoom
  - 10.1.3. MJPEG/MPEG4/H.264
  - 10.1.4. Power over Ethernet.
  - 10.1.5. Manufacturer/Model or equal: Panasonic WV-SW395A
- 10.2. PTZ indoor camera, mounted on wall or ceiling, Cat-6: vandal-resistant enclosure, color IP camera with the following minimum features (Noted on drawings as **type B**):
  - 10.2.1. Resolution: 1280 X 960 pixels (minimum) Day/Night
  - 10.2.2. 36x optical zoom
  - 10.2.3. MJPEG/MPEG4/H.264
  - 10.2.4. Power over Ethernet.
  - 10.2.5. Manufacturer: Panasonic WV-SC385
- 10.3. PTZ harsh environment indoor camera, mounted on wall or ceiling, Cat-6: vandal-resistant fan/heated, enclosure, color IP camera with the following minimum features (Noted on drawings as **type C**):
  - 10.3.1. Resolution: 1280 X 960 pixels (minimum) Day/Night
  - 10.3.2. MJPEG/MPEG4/H.264
  - 10.3.3. Power over Ethernet.
  - 10.3.4. Manufacturer/Model or equal: Panasonic WV-SW395
  - 10.3.5. Appropriate for indoor pool environment
- 10.4. Fixed IP indoor camera: impact-resistant enclosure, color IP camera, and varifocal lens with the following minimum features (Noted on drawings as **type D**):
  - 10.4.1. Resolution: 1280 X 960 pixels (minimum) Day/Night
  - 10.4.2. MJPEG/MPEG4/H.264
  - 10.4.3. Power over Ethernet.
  - 10.4.4. Manufacturer/Model or equal: Panasonic WV-SF335
- 10.5. Fixed IP indoor camera: impact-resistant enclosure, color IP camera, and varifocal lens with the following minimum feature (Noted on drawings as **type E**):
  - 10.5.1. Resolution: **1960 X 1080** pixels (minimum) Day/Night
  - 10.5.2. MJPEG/MPEG4/H.264
  - 10.5.3. Power over Ethernet.
  - 10.5.4. Manufacturer/Model or equal: Panasonic WV-SF538

## 11. Hardware and Software

### 11.1. HP Server:

Server shall be sized and specified to support all of the cameras on the Milestone Platform. The contractor shall make sure that the hardware specifications of the server, including storage, processing speed, software environment, etc. can handle the total number of existing and newly specified cameras with support to add 15% more cameras in the future.

The following assumptions and data must be taken into consideration:

11.1.1 Cameras will record at 8 frames per second under normal conditions with as many as 10 %, at any given time, recording at 15fps

11.1.2 All cameras to be set at H.264 compression at full resolution rate.

11.1.3 Retention time will be 30 days

11.2 The servers for the cameras at THS reside at THS. The vendor does not need to size the new servers to include these cameras when sizing the Long Hill Servers used for all other locations.

11.3. Software and License: A licensed VAR must purchase required licenses and software for the operational performance required to capture and store images on the recording devices and monitor servers. Software configuration will be left to the discretion of the TPS Contract Administrators; who shall oversee and direct the vendor during this process; and who shall maintain the right to facilitate the entire process independent of the vendor. All parties shall be involved to insure operability, launch and commissioning for final acceptance and approval by the Trumbull Public Schools.

11.3.1. Vendor is responsible for providing support and upgrades at no additional cost during the 2-year warranty period.

11.3.2. Technical issues and support should be included in the base cost with a guaranteed 2-hour response for service and a 24 hour resolution of the problem by the VAR or through the Contractor's Technical Support Center.

11.4. Certified Vendors: Those vendors who have previously submitted qualifications to the Trumbull Public Schools and received contract award as a certified provider for Milestone Surveillance and S2 Access Control; and who are approved as a VAR by Milestone and S2 are considered qualified to respond.

## 12. Submittals

The Vendor must submit data information sheets for all items listed below:

12.1. Provide three copies of the Operations manual for all equipment, modified as necessary for this particular system, for the Owner's use; and which contains operation, proper maintenance, and possible purchases that may be required for replacement parts beyond the two-year warranty.

12.2. Provide a site specific electronic schematic design of building with camera placement.

12.3. Electronic As-built deliverables are as follows and must be available at time of final walkthrough and acceptance.

12.3.1. Cameras must be labeled with location and descriptions

12.3.2. Placements must be identified by building, hall, corridor, and/or room#

To include the direction the camera is facing.

13. Warranty: The warranty shall not commence until the system has been demonstrated; the positioning of cameras is validated and all documentation has been delivered in the format required.

13.1. The warranty period for the operational system shall commence after the acceptance of the entire building warranty or the acceptance of the IP camera/access control/panic devices and system warranty, whichever is later; and shall be enforced up to two years. However, in the event of a continuous failure in any area of the hardware, TPS has the right to defer the warranty until the Vendor has completely eliminated the problem and restored the system to optimum performance; at which time the warranty period shall resume.

## PART IV- INSTALLATION ACCESS CONTROL AND CAMERA SYSTEMS

### 14. PATHWAYS & CONDUIT

14.1. The General Contractor is responsible for clean and organized cable pathways and other pathways in accordance to insure a neat workman-like appearance.

14.2. TPS Field Representative will work with the Vendor to coordinate pathway issues, including environmental issues, and requirements that may arise during construction. Conduits shall be tight to corners and plumb.

14.3. Conduit and/or pathway requirements that may arise as a result of Moves, Adds or Changes shall be the

responsibility of the CCTV Vendor. All work must be completed according to code and will be inspected and approved by Town of Trumbull Fire and Building Inspectors as well as the TPS Contract administrators.

14.4 All penetrations through fire or smoke rated walls shall be sealed with a TPS approved fire caulk.

#### 15. CAMERA MOUNTS

Vendor must insure that the correct camera mounts are selected based on surface requirements, and care must be taken to neatly provide penetrations for conduit, and to locate electrical service in a logical and orderly manner.

15.1. Exterior Cameras shall be mounted using manufacturer approved wall mount/arm plate.

Vendor must utilize the Manufacturer's Wall Mount diagram schematics and instruction.

15.2. Exterior Cameras shall be sealed with waterproof sealant.

#### 16. SERVER INSTALLATION

TPS IT Department Supervisor is responsible for sign-off of the final programming and installation of the HP Servers and Software; and shall coordinate system test and verification with the Contractor.

16.1. The rack-mounted Servers will be installed in the computer room at the Long Hill Administration Building at the discretion of the TPS IT Department. And work shall not commence until the TPS Network Servers and Switches are installed and fully operational.

16.2. Servers shall be installed in client-provided Racks in the Long Hill Server Room as approved by the TPS IT Department.

#### 17. SYSTEM TEST & VERIFICATION

TPS Contract Administrators will inspect and insure quality conditions during installation; will perform preliminary walk-thru and create punch list prior to system completion. After satisfactory completion of punch list the TPS Contract Administrators and Vendor shall conduct final test to verify proper operation of all equipment. Final Verification shall include:

17.1 Camera Scheduled hand-off to TPS Contract Administrators

17.2 IP Addresses & Camera Descriptions hand-off to TPS Contract Administrators

17.3 Coordination IT departments to facilitate install of Servers

17.4 Installation of Desktop client software

17.5 As-Built Drawings & Electronic PDF and jpg formats

17.6 Cameras focused on viewable online

17.7 All access points verified functioning and working properly

#### 18. TRAINING

Vendor shall demonstrate to Owner the proper operation of the entire CCTV system from all points of installation. The contractor shall demonstrate operation of the system and provide one 2-hour training sessions for the Building Administrator and designees.

18.1. The Vendor is responsible for providing 8 hours over all system training to IT and Plant Operations departments and 2 hours per building of client training to consist of features, function, and operation. Sessions can be held in 4 hour increments and will not exceed two sessions in one day.

18.2. Operation training shall be at a level that allows the Administrator to access, monitor, maintain, diagnose, and trouble shoot day-to-day issues and occurrences. Administrator shall maintain the right to add addition training elements as required.

18.3. Features training shall include PTZ controls and client station features. **Up to two hours per building additional training for IP based intercom solutions shall be provided in addition to above specified client training where IP intercom stations are installed.**

18.4. Cost associated with training shall be included in base bid and travel time to buildings SHALL NOT be counted as part of credited training hours

18.5. Training sessions shall be scheduled by the Vendor directly with each school and approved by TPS Contract Administrators. Vendor shall inform the Principal that one training session will be provided and that it should be scheduled such that all desired attendees may be present. Attendance shall be documented by name, date, and signature as a Training Sign-In Sheet for each training session and shall be completed and delivered to TPS Contract Administrators as a final deliverable to this project. All training sessions are to be completed prior to the substantial completion deadline.

18.6. Vendor shall record one training session and provide 2 DVDs for use by the Principals and TPS Contract Administrators. Audio and video recording shall both be of professional quality.

18.7. TPS Contract Administrators will deem audio and video quality acceptable at the time of acceptance. Poor quality

may result in duplicate sessions at cost to contractor.

## **19. SYSTEM COMMISSIONING & CLOSEOUT**

Throughout the entire life-cycle of each project, a TPS Contract Administrator will be assigned to work with the vendor for review and coordination of tasks associated with the final commissioning and successful closeout of the project. This person will coordinate and validate the following tasks

- 19.1. Vendor Kick-Off Meeting:
- 19.2. Drawing Review and Sign-off
- 19.3. MDF/IDF Closet Readiness
- 19.4. Coordination of Pathways
- 19.5. Coordination of Hardware Delivery & Installation
- 19.6. Port Assignment for connectivity to APS Switch
- 19.7. Camera Focusing
- 19.8. System Testing & Verification
- 19.9. Field Walk-through Quality Control
  - 19.9.1. Validation of appropriate housing & mounting
  - 19.9.2. Lens Selection
  - 19.9.3. Cable Routing
  - 19.9.4. Correct use and specification of cabling and connectors.
  - 19.9.5. Correct grouping and specification of video server/station.
  - 19.9.6. System backup power specification
  - 19.9.7. Testing and commissioning of the operational system from cameras
  - 19.9.8. Verification of adequate lighting for cameras field of view.
  - 19.9.9. Coordinate (with Principal) placement of Workstation Monitors
  - 19.9.10. Vendor Punch-list
- 19.10. Vendor Completion & Closeout
  - 19.10.1. Satisfactory completion of Punch-list items
  - 19.10.2. Closeout Documentation
  - 19.10.3. Satisfactory focusing of Cameras
  - 19.10.4. Coordination & Installation of Workstations & Monitors
  - 19.10.5 Availability to BSE for Final System Test & Verification
  - 19.10.6. Training
- 19.11. TPS Contract Administrators Quality Control
  - 19.11.1. Specification & Configuration of Servers
  - 19.11.2. Review and Signoff of Closeout Documentation
  - 19.11.3. Facilitate System Testing & Final Launch
  - 19.11.4. Other special requirements deemed by the TPS Contract Administrators
  - 19.11.5. Review and approval of proposed Change Requests
  - 19.11.6. Coordination of the entire system with the TPS Contract Administrators and the General Contractor.

## Appendix A – Supplemental Information

### S2 – ACCESS CONTROL AND INTERCOM

The access control portion of this bid shall be extensively designed by the Contractor. It shall be the Contractor's responsibility to procure, install, and program the access control system to function as specified below. **Before bid is awarded, the TPS Contract Administrators and Contractor shall review the proposed layout, selected equipment and hardware, the S2 software/hardware products, and IP intercom solution. Such review may include but is not limited to site visits to other installations, online demonstrations, and a review of cut sheets and drawings.**

S2 hardware and software shall be used to manage access control. All hardware shall be selected by the Contractor, including but not limited to S2 boxes, blades, wiring, power supplies, network cabling, etc. to create a complete installation in accordance with the attached drawings and include the following functions as currently available in TPS S2 system and extended to all new devices:

1. Door status—open, locked, forced open, etc.
2. Integration of access control card features including management of all access card holders, portals, etc.
3. Full scheduling features including holidays, various time specs, etc.
4. Remote lock and release functions
5. Event notification programming
6. System administration features
7. Special action/event programming
8. Integration with Milestone for video event marking etc.

All S2 equipment shall be installed using manufacturer's recommended methods, equipment and hardware including rated wire, etc. Installation shall be neat and clean. Card readers shall be HID Thin Line II model. The TPS use HID ProxCard II clamshell security cards for access control. Readers shall be securely mounted as recommended by the manufacturer in an area as close to the door to be opened as possible.

Door hardware shall match existing style/manufacturer whenever possible.

1. Panic devices shall be Von Duprin or Sargent 80 and any associated trim, latches, etc. packages shall match panic device.
2. All access control wiring shall be concealed or run through secure conduit. Conduit shall be as unobtrusive as possible.

New IP a/v intercom systems shall be installed and integrated into the S2 system as noted on the drawings. These systems shall:

1. Operate through users' desktop workstations
2. Appropriate microphones and speakers shall be provided by Contractor as needed
3. Video and audio may be ported to stand alone monitor
4. Client software can be minimized on desktop and made to "pop-up" when call button is pushed
5. Must include necessary client software at a minimum of 3 locations per building.
6. There shall be 2-way communication with intercom module
7. Rollover feature on timed failed to respond must be available
8. Door functions to be mouse or keyboard controlled
9. Video to be recorder as part of Milestone monitoring system

**Acceptable systems may include Aiphone or Commend IP Intercom Solutions. Contractor proposed system MUST BE demonstrated to, and approved by, TPS Contract Administrators.**

Panic buttons to be installed in the principal's office and outer office connected to the S2 system that with functions that will:

1. Lock all exterior doors that are on S2 system overriding all programmed schedules
2. Send a signal to 911 call center alerting them emergency

**Optional: Will be tied in to schools PA system to make a predetermined PA announcement alerting occupants to lockdown status of the building. Please quote this on a T & M basis. See bid sheet.**

**Annual Maintenance Agreement Option:**

Annual maintenance agreement option would include:

1. Semi-annual tuning and cleaning of the system including installation of any software updates for Milestone of S2
2. Verification of network connectivity for all devices in S2 and Milestone
3. 2 hours of service per month
4. Preferred technician rate for repairs

The information provided here is not deemed to be complete. All specifications and drawings must be referred to by the Contractor.

Access Control:

- Current S2 Product: **S2 Netbox Extreme most current version**
- Current IP based intercom systems installed: **None**
- Current Access Control Card in use: **HID ProxCard II**
- Currently installed access control points: 32
- There is no access control system installed at Long Hill or the Reach Building.
- There is no S2 system at the Agriscience building
- There is one Netbox installed in Long Hill
- Buildings needing an IP intercom system: Long Hill, Reach, Agriscience and Trumbull High School
- There are about 700 users of the system

IP Cameras:

- Current Milestone Product and version: **Xprotect Enterprise Version 8.0c**
- THS resides on its own servers
- The rest of the district is on servers located at Long Hill Administration Building
- There are currently approximately cameras supported
- Fps for all cameras to be set at 8fps with 10% set at 15 fps
- Resolution shall be set at max for each camera
- Record on motion to be set on all cameras
- Permissions to view cameras to be school based or universal depending on position of user- to be programmed by Contractor
- **Where no monitor exists in the main office a minimum 37" monitor shall be installed and programed to view all cameras at once or selected cameras**
  - Reach
  - Long Hill
- Coordinate access control to "push" video to live monitoring station upon unauthorized door use

Network Information:

- At least 2 Communications closets in each location connected via 1Gig fiber.
- WAN is also 1Gig to each location, the admin. Building is the hub for all network traffic (star topology).
- CAT6 network wiring will be standard EIA/TIA certified.
- All TPS Switches are HP Procurve; POE is available in each stack.
- The TECEC building is fed off of Middlebrook School via 1Gig fiber.
- REACH is fed off of Madison via 1gig fiber
- AgriScience is fed off of Trumbull High via 1 Gig fiber.
- **THS has its own video servers. The new district video servers do not need to be sized to accommodate the THS cameras.**

Diagrams, school addresses, and contact information may be obtained by emailing or calling Stephen Kennedy, TPS Plant Administrator at: 203-452-4306 – [kennedys@trumbullps.org](mailto:kennedys@trumbullps.org)

**TOWN OF TRUMBULL, CONNECTICUT  
 BOARD OF EDUCATION  
 REQUEST FOR QUOTATION  
 INSTALLATION OF ELECTRONIC SECURITY SYSTEM EQUIPMENT**

**BID # 6024      DUE: DECEMBER 10, 2013 AT 2:00PM**

**Bid Form**

The undersigned, in compliance with this request affirms, that it has examined the specifications and related documents contained herein and proposes to provide this service in accordance with this RFP and any contract documents within the time frames set forth herein and at the prices agreed to.

The undersigned certifies that this proposal meets all the specifications, requirements and conditions requested herein. Any substitutions to the specifications requested are clearly and completely noted and attached. Any alternate proposals are presented in similar format as requested and are attached herein. It is understood that the Town reserves the right to reject any or all proposals.

<b>Cost for installation and configuration of all equipment noted on diagrams:</b>	\$ _____
<b>Unit cost for installing additional exterior PTZ camera type "A":</b>	\$ _____
<b>Unit cost for installing additional interior PTZ camera type "B":</b>	
<b>Unit cost for installing additional interior camera type "D":</b>	\$ _____
<b>T &amp; M costs for panic button to intercom connection and any work required outside scope of bid:</b>	
<b>Time- Technician cost per hr.</b>	\$ _____
<b>Percent (%) Material Mark/up over wholesale cost (Wholesale invoice required)</b>	M/up % _____

**INSTALLATION OF ELECTRONIC SECURITY SYSTEM EQUIPMENT**  
**BID # 6024 DUE: DECEMBER 10, 2013 AT 2:00PM**  
**BID FORM CONTINUED**

**LICENSING AND MAINTENANCE PRICING:**

Maintenance Agreement cost year 1	\$ _____
Preferred Technician Rate Beyond Agreement Hours:	\$ _____
Maintenance Agreement cost year 2	\$ _____
Preferred Technician Rate Beyond Agreement Hours:	\$ _____
Maintenance Agreement cost year 3	\$ _____
Preferred Technician Rate Beyond Agreement Hours:	\$ _____
Licensing Cost S2 4 years	\$ _____
Licensing Cost S2 5 years	\$ _____
Other Option for S2 Licensing _____	\$ _____
Licensing Cost Milestone 3 Years	\$ _____
Licensing Cost Milestone 4 Years	\$ _____
Licensing Cost Milestone 5 Years	\$ _____
Other Option for Milestone Licensing _____	\$ _____

Terms: \_\_\_\_\_ Estimated time to complete project: \_\_\_\_\_

\_\_\_\_\_  
 Company Name

\_\_\_\_\_  
 By (Signature)

\_\_\_\_\_  
 Address

\_\_\_\_\_  
 Print Name (A Duly Authorized Representative)

\_\_\_\_\_  
 Address

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Telephone/Fax

\_\_\_\_\_  
 email

\_\_\_\_\_  
 Emergency Contact Number

TOWN OF TRUMBULL, CONNECTICUT - BOARD OF EDUCATION - REQUEST FOR QUOTATION  
 INSTALLATION OF ELECTRONIC SECURITY SYSTEM EQUIPMENT  
 BID # 6024 DUE: DECEMBER 10, 2013 AT 2:00PM

SECURITY EQUIPMENT COUNT									
School	Existing IP Cameras	Proposed Camera A Type	Proposed Camera B Type	Proposed Camera C Type	Proposed Camera D Type	Proposed Camera E Type	Existing Access Control Points	Proposed Access Control Points	Additional monitoring locations
Agriscience	3	1		0	1	1	0	3	1
Booth Hill	1	2	2	0	6	0	3	5	0
Daniels Farm	1	1	3	0	6	0	3	2	0
Hillcrest	4	0	0	2	8	0	3	3	0
Frenchtown	1	3	3	0	7	0	3	5	0
Jane Ryan	1	2	2	0	7	0	3	3	0
Long Hill	0	2	1	0	5	2	2	4	1
Madison	1	0	0	0	11	1	5	4	1
Middlebrook	1	2	1	0	5	0	4	3	0
Reach	0	1	0	0	4	0	0	4	1
Tashua	3	2	0	0	5	0	3	4	0
TECEC	3	1	0	0	0	0	3	0	0
THS	-	-	-	-	-	-	12	3	1
Totals	19	17	12	2	65	4	44	43	5
Different Video Server serving THS Only-To Remain									
THS	85	0	0	0	0	0			
S2 System District-Wide							44	43	5