

LPR System
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March 29, 2010

Mr. Randy Mesa
PIPS Technology
11230 Gold Express Drive #310
Gold River, CA 95670

Subject: Automated License Plate Reader System Solicitation of Proposals

Dear Mr. Mesa:

The Town of Tiburon invites your company to submit a proposal to furnish and install an Automated License Plate Reader (ALPR) System. The field elements of the ALPR System will be installed at two locations, one on Tiburon Boulevard (SR 131) and the other on Paradise Drive. This letter, together with attached technical specifications comprises the Solicitation of Proposals (SOP) for an ALPR System.

Background

The Tiburon peninsula has about 12,000 residents. The majority live in the Town of Tiburon. Access to the peninsula is via one of two roadways: Paradise Drive, a county road, and Tiburon Boulevard which is also a state highway (SR 131). The most common property crime occurring in Tiburon is theft, either of vehicles or from vehicles and residences. In 2007 and 2008 losses totaled just over \$700,000.

Following a sharp increase in thefts in February of 2008, the Tiburon Police Department focused heavily on these cases and made a number of arrests. It was concluded that additional arrests could have been made if we had a reliable method of identifying those vehicles who had entered and left the Tiburon peninsula during the hours when most offenses occurred.

Based on discussions with other similar municipalities, the Town has determined that the most efficient and cost effective method of vehicle identification would be the employment of a Automated License Plate Reader System to capture license plate images of cars entering and leaving the peninsula along with the time each vehicle's license plate image was captured. Given that there are the two access points to and from the Tiburon peninsula, we have determined that the placement of this ALPR System including the cameras and associated equipment would be best located near the Town limits on Paradise Drive and on Tiburon Boulevard (SR 131).

Description of the Proposed ALPR System

The proposed ALPR System will consist of field cameras and license plate reader processing units connected to the Town's Police Department building and the central servers via a leased wireless connection. The Town of Tiburon will furnish the central servers and will procure the leased wireless links. New streetlight poles and electrical service for the ALPR System field elements will be provided by

the Town of Tiburon (see discussion below). Figure 1 provides a high level diagram of the proposed ALPR System.

The vendor shall be responsible for configuring and establishing the connection to the DOJ database. It is anticipated that an existing Internet connection at the Town's Police Department will be used for this connection.

The proposed ALPR System will have two field installations. The first installation will be on Tiburon Boulevard and the other on Paradise Drive.

The Tiburon Boulevard installation will be in the center median between Blackfield Drive and Bay Vista Way. Two ALPR cameras for each direction of travel (total of four cameras) will be installed on two new six-foot streetlight arms attached to a new streetlight pole. The electrical/communications cabinet will be installed on the new streetlight pole.

A construction contractor (under a separate contract) will furnish and install the new streetlight pole and arms and all associated infrastructure to provide electrical power to the streetlight pole. Additionally, the construction contractor will work with the selected ALPR vendor on the installation of the cameras, cabinets, associated wiring/cabling and remote communications. The construction contractor will be responsible for the installation of the leased wireless system which will be procured by the Town for communications with the central servers, and the selected vendor will be responsible for the configuration and testing of this leased wireless link.

The installation of the field ALPR units on Paradise Drive will be on an existing PG&E utility pole. The exact location is still to be determined. However, for this location, the ALPR units will be powered by the electrical service on the existing utility pole. PG&E will provide the electrical service point and the construction contractor will install the cameras, cabinets and associated wiring/cabling at the direction of the ALPR vendor and PG&E.

The selected ALPR vendor shall provide consulting and technical assistance to the Town and the construction contractor during the installation, configuration, and testing of the system. A separate maintenance contract will be executed for on-going operations and maintenance of the ALPR System. This maintenance contract will include different levels of support and response times from the ALPR vendor.

Tiburon License Plate Reader System High Level Block Diagram

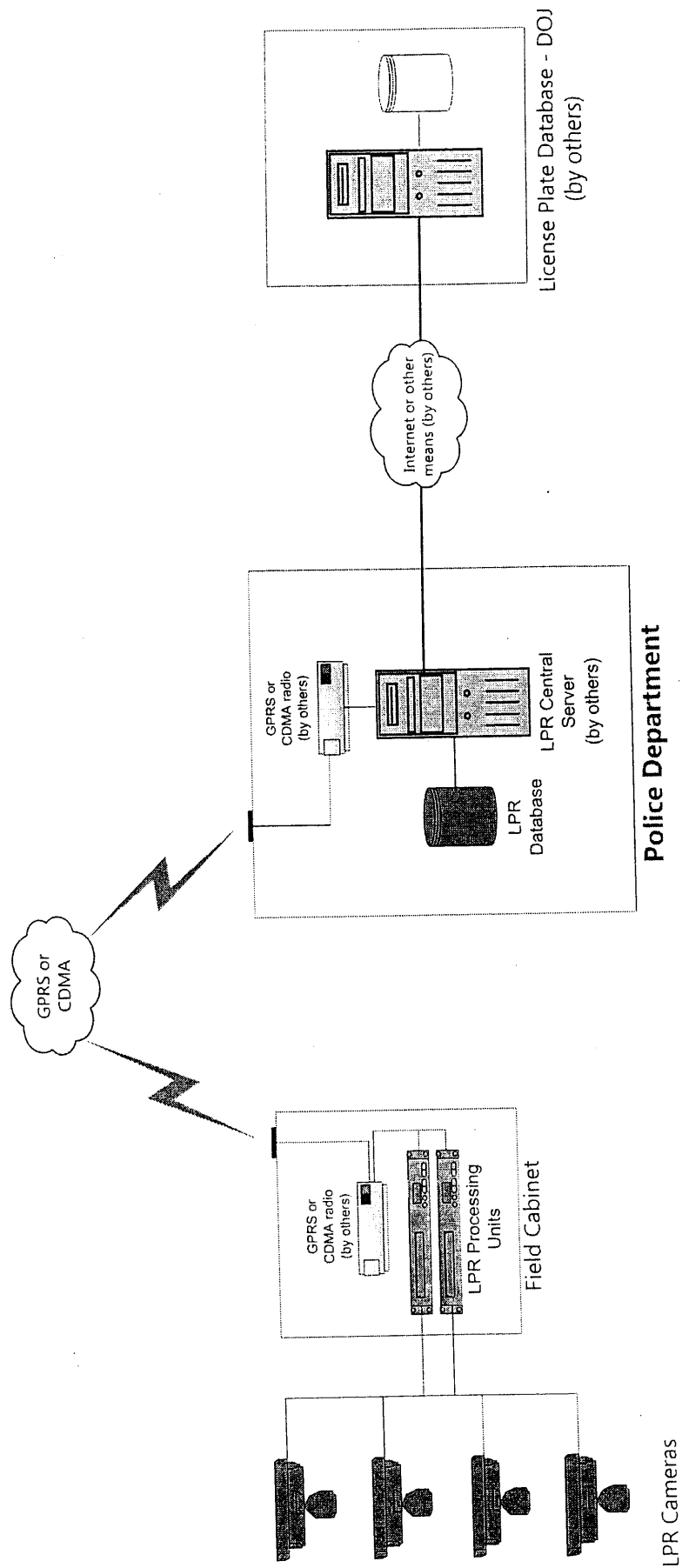


Figure 1 – High Level Diagram of Proposed ALPR System

Schedule

The construction contract is expected to begin in June 2010 with completion slated for August 2010. This APLR contract will need to be executed and the ALPR units ready to be furnished no later than the first week in July 2010 with the integration and testing completed no later than the last week in August 2010. It is during this period that the ALPR vendor is expected to coordinate with the construction contractor and the Town on the procurement, installation, configuration and testing of the system.

Proposal Evaluation

The proposals will be evaluated based on the proposed ALPR's conformance with the technical specifications and the system cost. The Town of Tiburon reserves the right to accept or reject any or all proposals submitted, waive minor irregularities in proposals, request additional information or revisions to offers, and to negotiate with any or all proposers. Any contract award will be to the company that presents the proposal that, in the opinion of the Town of Tiburon, is the most advantageous to the Town.

The proposal and all inquiries relating to this solicitation shall be submitted to:

Mike Cronin, Chief of Police
Town of Tiburon
1155 Tiburon Boulevard
Tiburon, CA 94920

For telephone inquiries, call (415) 789-2807. E-mail inquiries may be directed to mcronin@ci.tiburon.ca.us. Thank you for your interest.

Sincerely,

Mike Cronin, Chief of Police
Town of Tiburon

Proposal Due Date

If your company is interested, please submit two (2) originals and one electronic PDF version of your proposal by 4:00 pm, **Thursday, April 22, 2010**. ***Proposals received after that date and time will not be considered.*** Proposals shall be considered firm offers to provide the services and products described for a period of ninety (90) days from the time of submittal.

Proposal Contents

Proposal content and completeness are most important. Clarity is essential and will be considered in assessing the proposer's capabilities. Each proposal should include:

A. Transmittal Letter

Proposals must include a transmittal letter signed by an official authorized to solicit business and enter into contracts for the company and the name and telephone number of a contact person, if different from the signator. The transmittal letter should refer to this SOP by title and date and should include a statement that the Proposal is a firm offer to enter into a contract with the Town of Tiburon according to the terms of this SOP and the submitter's proposal for ninety (90) calendar days following its submission.

B. Title Page

Proposals must include a title page that includes the RFP subject, the name of the proposer's firm, local address, telephone number, name of contact person, the contact person's email address and/or telephone number, and the date.

C. Overview

This section should clearly convey the proposer's understanding of the nature of the work and the general approach to be taken. This section should be no more than 3 pages and should include, but not be limited to, the following:

- A summary of the proposed approach to implementation of the ALPR System; and
- A discussion of roles and responsibilities of each firm if the Contractor is a team of firms.

D. Summary of the Proposed ALPR System

This section should provide a detailed description of the proposed ALPR System. This section should be no more than 8 pages and shall not include any marketing brochures or marketing material. Photographs and graphics/charts are acceptable only if they serve to convey the details of the proposed ALPR System more clearly. At a minimum, this section should include:

- A summary of how the vendor's proposed ALPR System meets or exceeds the technical specifications
- How the company will work with the construction contractor during the installation, configuration and testing of the system
- Suggestions on alternative approaches/ideas to expedite the implementation or for cost control and mitigation of potential obstacles for the system if different than described above, or from the technical specifications.
- Description of the ALPR vendor's technical support structure for on-going operations and maintenance of the vendor's system.

The discussion shall be in sufficient detail to demonstrate a clear understanding of the project and its constraints. Any deviations from the technical specifications shall be noted with a justification for the deviation. Note that each proposal will be evaluated, amongst other things, on the conformance with the technical specifications, and that deviations from these specifications can and will likely have an impact on the evaluation of the proposer's system.

E. Qualifications and References

1. Company Qualifications: a company profile and summary of the company's qualifications in relation to this type of system. The company profile should specify the firm size and number of staff available to work on this project.
2. Team Qualifications: describe proposed team's qualifications specific to this system. Identify the personnel, including subcontractors' personnel, whose expertise or experience addresses each of the specified needs of this project. Proposers are welcome to identify and provide examples of any other qualifications they feel are critical to the successful completion of this ALPR System. Indicate where the key staff are located (primary office location).
3. Key Personnel: identify key personnel (including subcontractor personnel) and briefly discuss individual qualifications to perform each task. Provide key personnel resumes, but each resume should not exceed two pages.
4. Previous Projects: provide a succinct description (one page maximum per project) of any previous system deployments similar to the Town's ALPR System. To the extent possible, identify the client, size of the system, technologies used, year of completion, and the total project budget, and who from the project team proposed for this solicitation worked on the referenced project and the role he/she played on the project. Include the name of the contact person and their telephone number.

5. References: provide three (3) references who can attest to the submitter's experience in providing a substantially similar system to the one covered by this RFP. Include client name, point of contact, telephone, and fax number for three systems similar to work described in this SOP). Letters of endorsements may be included as an appendix.

F. Cost Proposal

Provide a cost proposal ***in a separate and sealed envelope*** to furnish and install the ALPR System. The cost proposal shall include a breakdown of the different items that form the ALPR System with line item costs. Additionally, the cost proposal shall include installation support cost per day, the assumptions on the number of working days the vendor expects to support the installation, and the work items that the vendor assumes will be performed by others. The separate and sealed envelope shall be clearly labeled "**Tiburon Automated License Plate Reader System – Cost Proposal.**"

Technical Specifications

This section provides the technical specifications of the proposed ALPR System. Unless otherwise noted, these specifications are mandatory. Failure to meet any of these specifications will result in the system being removed from further consideration.

I. General

1. The ALPR system (hereinafter referred to as the "System") shall be of a design that is primarily for fixed camera installations, i.e., non-mobile situations.
2. The System shall operate unattended 24 hours a day, seven days a week.
3. The System shall be a fully integrated and interoperable system with each element working as a single system. The System vendor shall be fully responsible for all elements provided to ensure a fully interoperable, integrated, and operating System regardless of who supplies any or all of the elements or parts furnished by the ALPR vendor.
4. The System shall work with a secured leased wireless service, e.g., GPRS for the transfer of information to and from the Town's central servers.
5. The System shall read, capture (i.e., digitize), store and upload to the central servers readable license plates in each lane at each project site.
6. The System shall capture an image of all of the characters on each readable license plate and store this in the field ALPR unit until uploaded to the central servers.
7. The System shall capture and store at least 95% (accuracy rate) of all readable license plates for the Town's specific field application – project details are available upon request. The 95% accuracy rate is the percentage of readable license plates that is successfully captured and stored in a database. A readable license plate is one that is unobstructed and undamaged. It shall be the vendor's responsibility to set the viewable area to capture all readable license plates.

8. A license that is readable (i.e., unobstructed and undamaged), but not able to be captured due to the plate not being in the field of view of the captured image shall be counted against the accuracy measurement of 95%.
9. The System shall be able to determine the state or origin of the license plate.
10. The System shall be able to read retro-reflective and non retro-reflective license plates.
11. The System shall be able to read license plates on vehicles traveling up to 55 miles per hour.
12. The System shall provide for a complete data mining software toolset for plate pattern matching and reporting.
13. The System shall be a fully web-enabled, IP addressable system capable of remote access through wireless (GPRS, CDMA, or Wi-Fi) or wired connections.
14. The System shall be able to update the internal database at least once a day with the latest database information from other regional databases (e.g., DOJ or other stolen vehicle databases) using an Internet connection. The vendor shall be responsible for establishing the connection with the database and the Town will provide the Internet connection.
15. The System shall be able to send SMS text messages or e-mail on preconfigured alerts, e.g., plate captures generates a database hit. These types of messages shall be sent within 15 seconds of the database hit.
16. The System shall be provided with central server software to allow the Town operators the ability to perform the following functions:
 - a) Upload current license plate captures from the field units (by schedule or on demand).
 - b) Download system configuration modifications on demand.
 - c) Connect to any system camera for viewing on demand.
 - d) Perform queries of existing data in the central server database.
 - e) Save and re-run queries on the central server database.
 - f) Save the queries to a print file for printing, or print out the queries directly to a printer. A minimum of ten (10) pre-defined queries be developed/configured for the Town by the vendor.
17. The System shall provide software (i.e., application software and database engine) that can be loaded and operated on a server provided by the Town.
18. The housing for any and all system equipment to be installed in the field shall be rated to IP67 standards.

II. Cameras and Camera Assemblies

1. The cameras shall be fully functional and be able to read license plates during day and night conditions.
2. The cameras shall be dual channel cameras with integrated infrared and color.
3. The cameras shall be housed in a rugged weatherproof enclosure rated to IP65 standards.
4. The cameras shall be equipped with an IP-based interface (TCP/IP over Ethernet).

5. Other options for the camera shall include FTP protocols, relay output, EIA-232, GPRS and/or GSM connectivity.
6. The cameras shall support MJPEG and MPEG4 (Part 2 or H.264) compression. Video streams will not be captured nor stored, only single image frames will be captured for the sole purpose of license plate readings.
7. The cameras shall be a fully web-enabled, IP-addressable device.
8. The cameras shall also support the following:
 - a) External trigger inputs.
 - b) Compact flash storage of up to 12GB.
 - c) 128-bit hardware data encryption.
 - d) 802.11b Ethernet bridge with antenna for Wi-Fi.
 - e) Optional GPRS/GSM or CDMA modem.
9. Each camera shall require low power for operation (up to 48V max). This voltage requirement can be increased should there be the need for other peripheral elements, e.g., heating unit. However, under no conditions shall any camera exceed a voltage rating of more than 110V.
10. The Camera assembly shall include all mountings and fasteners necessary to install the camera assembly on a streetlight pole or mast arm.

III. Licenses

1. The System shall require either a single system license or a license per camera. The system shall not require a camera and a server license. The license(s) shall be a perpetual license for use by the Town and shall include updates to the system without the need for a new license fee.

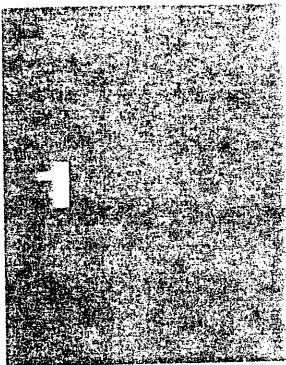


PIPS Technology, Inc. - LPR Bid Response

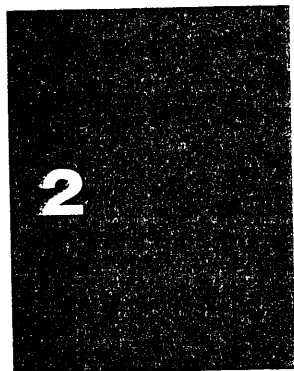
Request for Proposal

Presented to:
Michael Cronin, Chief of Police
Town of Tiburon, California

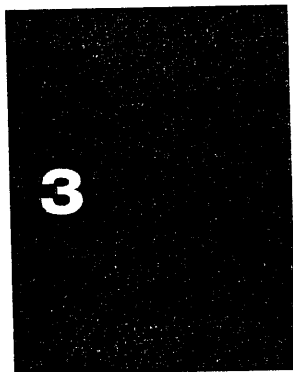
By Greg Lary, Vice President Western Region Sales



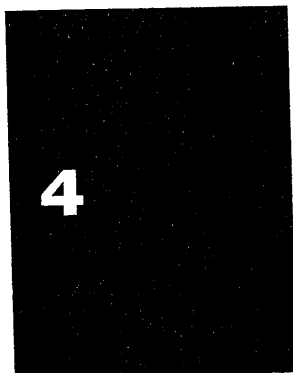
Transmittal Letter



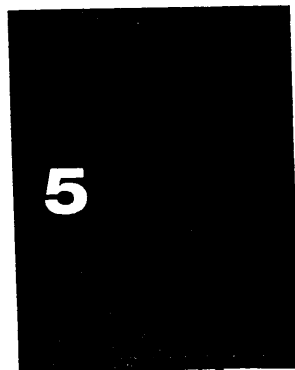
**Overview
and
Summary of ALPR System**



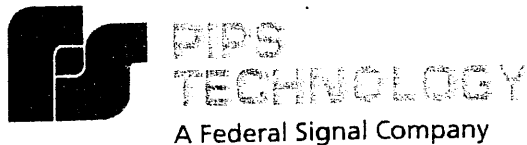
Qualifications and References



Product Descriptions



Technical Specifications



Chief Michael Cronin
Tiburon Police Department
1155 Tiburon Boulevard
Tiburon, CA 94920

April 20, 2010

Chief Cronin,

Thank you for contacting us regarding our license plate recognition technologies. PIPS Technology, Inc. has been in the development of high technology cameras since 1983 and has been involved in the license plate recognition market since its inception back in 1993. Based on our lengthy experience, we are recognized as having the most advanced license plate recognition systems in the world with offices in London, Knoxville and Los Angeles, and we have installed over 17,000 camera systems on 5 continents.

Attached to our bid response for your Request for Proposal for fixed license plate recognition cameras for the Town of Tiburon per your This response and proposal is a firm offer to enter into a contract with the Town of Tiburon according to the terms of your SOP and our proposal is firm for ninety (90) calendar days following its submission.

PIPS award-winning technology has two key patents which are part of the core of our technology:

Hardware Plate Finder Technology: detects the presence of reflective surfaces and "hones in" on the license plate.

Triple Flash Image Capture Technique: adjusts camera settings on a continuous basis to ensure maximum image quality under a wide range of environmental conditions.

If there is any question as to whether our system will perform in a law enforcement environment, please consider that our equipment has been thoroughly tested for:

A temperature range of -4° F to +185° F;
To meet "eye safe" certification standards;
Sealed to IP67 Standards;
To military standards for Shock Crash Hazard and solar radiation;
For mechanical shock, electrostatic discharge, and inductive transient;
And meets the UL-94 requirements for product flammability.

All of this has resulted in the highest technological award in the U.K. for our Spike+ fixed LPR camera - The Queen's Award for Technology (2005). A copy of the award accompanies this letter.

When considering an ALPR vendor I hope you will take into consideration the following key points about our company:

- Our **only** market focus worldwide is specializing in Automatic License Plate Recognition technologies.

- As an Original Equipment Manufacturer, we design and build our own hardware and software – we control the quality, sales and support of our products from start to finish.
- PIPS offers an ALPR “back-end” analysis software package (BOSS) that provides administration of PAGIS users and data-mining of “historic” license plate information obtained and stored from all deployed mobile (and fixed) systems within your department.
- Our BOSS software allows Tiburon PD to link their LPR data with the 100+ other local and regional law enforcement agencies where PIPS equipment has been deployed throughout California and the western US. It allows peer-to-peer data sharing for LPR intelligence with other agencies allowing Tiburon PD to leverage its LPR investment across your state and adjacent states where we have a significant presence. In addition, since BOSS is not a “hosted” application, Tiburon PD would maintain control of their LPR data.
- Our technology has passed a rigorous 5-protocol day and night testing procedure by the CHP with successful capture and plate interpretation rate of 92% obtained at speeds up to 110 miles per hour in various conditions that simulate the mobile law enforcement environment. In addition, our durable camera mounts were designed by law enforcement for law enforcement deployment. Nearly all LPR vendors at the time were tested by this agency and each has their own CHP report. A copy of ours is included.
- Again, we have established a regional sales and support office for the western U.S. based in the Los Angeles area.

PIPS was acquired by Federal Signal Corp., a \$1.2B, NYSE listed company. Upon successful consideration, we will be pleased to provide fiscal documentation proving our ability to provide financial capability and competency to perform the required services.

We appreciate the opportunity to provide the Town of Tiburon with pricing for your LPR technology. When you look deeply enough, you will see that PIPS Technology has the most proven technology, experience and the support capable to successfully work with the Tiburon Police Department.

If you have any questions regarding our bid response, please don't hesitate to contact me directly on my cell phone at 818-800-5924.

Kind regards,



Greg Lary
Vice President, Western Region Sales
Federal Signal Corporation/PIPS Technology, Inc.

Tiburon LPR Overview and Summary of the Proposed LPR System

PIPS Technology has installed LPR cameras around the world for over 17 years. With 17,000 cameras worldwide, the experience we bring to the installation of LPR camera technology to the Town of Tiburon is broad and deep.

PIPS proposes to install our P372 Spike+ fully integrated LPR camera. This camera utilizes color and infrared cameras, infrared illumination and an on-board LPR processor. This award winning camera minimizes installation time by eliminating any having to install roadside processors. By having on-board processing, should anything happen to one camera, the other cameras will still continue to function. For example, in a two lane configuration, if one camera fails 50% of the lanes are still covered. With cameras tied to a roadside processor, as depicted in the high level LPR configuration document that came with the RFP, when the processor fails, all cameras fail and none of the lanes are covered.

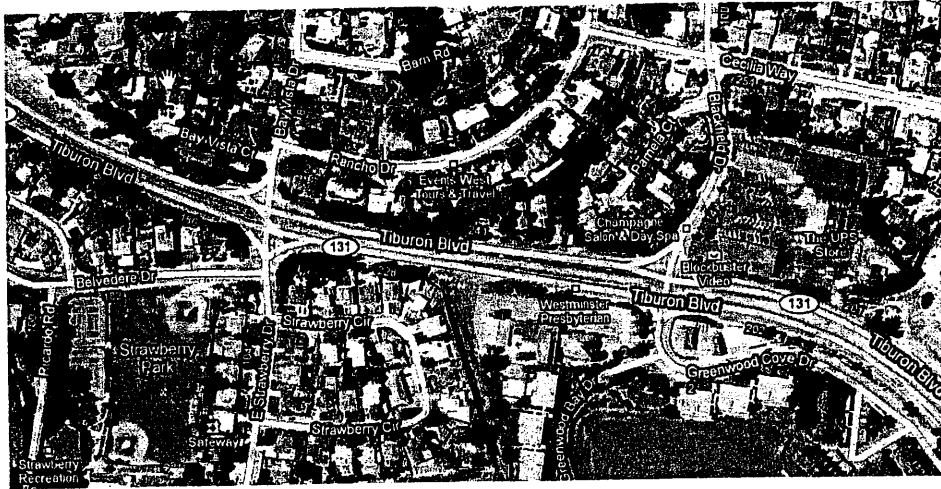
Furthermore, we are including optional 4GB compact flash storage cards into the cameras. This feature is to ensure that if the data communications fail, the CF card will continue to buffer LPR data while sending it to our back office software when communications are restored.

Utilizing the PIPS Spike+ camera configuration exceeds the proposed specification as a result.

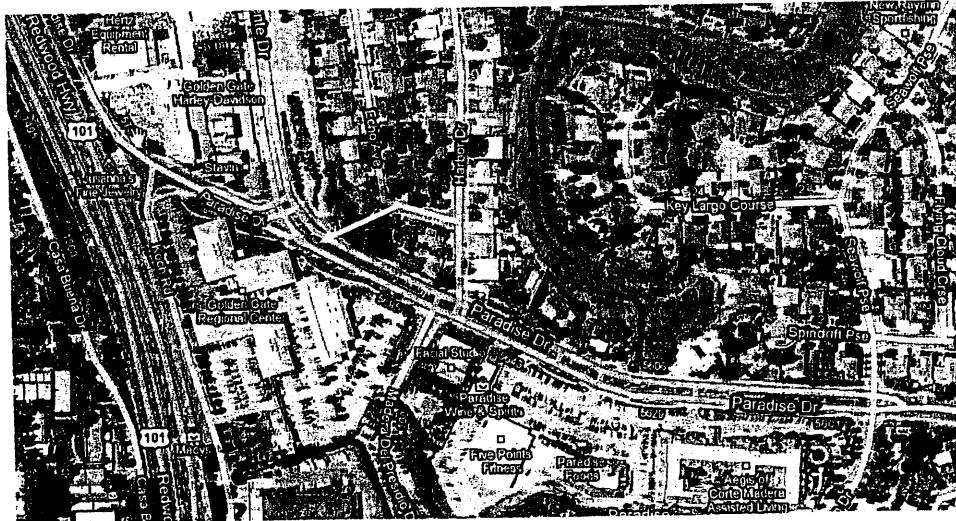
Having read the project overview, it is our understanding that a total of 6 LPR cameras will be needed: 4 for the Tiburon Boulevard location and 2 for the Paradise Boulevard location, both locations are depicted in the regional overview image below. The yellow arrows indicate our interpretation of the approximate installation sites.



Satellite overview of the Town of Tiburon



Above is a top down view of Tiburon Blvd. and the potential location between Bay View Drive and Blackfield Drive. Two cameras are proposed for each direction as mounted on 6-foot light pole extensions over the lanes. It is our suggestion that the pole be mounted sufficiently past the turn arc from northbound E. Strawberry Lang to eastbound Tiburon Blvd (yellow arrow). This is to ensure all vehicles license plates are captured traveling in a consistent manner centered in the lane.



Above is an overview picture of Paradise Drive where two cameras are to be installed, presumably, on the inbound lanes to Tiburon. Understanding that the PG&E pole location has yet to be decided, it is our recommendation to mount the cameras as close to where Paradise Road merges with San Clemente Drive as possible (see yellow arrow). This is to ensure maximum response time on vehicles with "hit" notifications from the LPR system to plates that match a particular database.

It is essential, for illumination and accuracy, to have the LPR cameras mounted and centered as much over the lane as possible and close to the plate capture area. This is to ensure tall vehicles do not block the view of the plate of the outside vehicle (as would be the case if both cameras are mounted on one pole in the center median to the side of the road) and sufficient illumination is available to the reflective plate.

In addition, vehicle plates are no longer mounted 20" off the road in the center rear of the vehicles. They are mounted up and to the left (Volvo XC), up to the right (Ford passenger vans) or delivery trucks where the plate is embedded in the ICC bars. Having LPR cameras mounted centered over the lane tends to take away that variability and improve plate capture capability. Mounting the LPR cameras on 6-foot pole extensions will certainly help enhance plate capture, however; given that lanes are typically 12-feet wide, we would recommend a longer extension if practical and acceptable within city and engineering standards or requirements.

After the infrastructure is installed, on the day of LPR commissioning, the Town will need to ensure the electrical and data engineer is present, along with a bucket truck for re-aiming cameras as needed, along with police personnel for coordinating lane closures. It is highly recommended, for traffic mitigation purposes, to advertise the potential intermittent lane closures a week in advance to give residents ample time to prepare for these events in each location.

When the PIPS engineer arrives, he will connect directly to each camera individually to review the initial "aim" of the camera as set by the installer. Using an embedded tool in the PIPS system, he will know if the camera needs to be re-aimed. If so, police will close the lane, the bucket truck and installer will reset the camera with the PIPS engineer's direction. The lane is reopened, the PIPS engineer reviews read accuracy and the process repeats itself for all cameras until the camera's read and capture accuracy is acceptable.

After the cameras are operating in an acceptable manner, the commissioning process reverts to the inside with the back office system software (BOSS). Our Boss software is then configured to accept the reads, databases are configured and imported, and key users are initially set up.

Upon final commissioning and configuration, the installation of the LPR system is complete and training on the system is arranged with key police department personnel. Suggested participants are I.T. personnel and administrator, dispatchers, key police department users such as administrative Sergeants, Lieutenants and/or Captains, crime analysts and/or detectives.



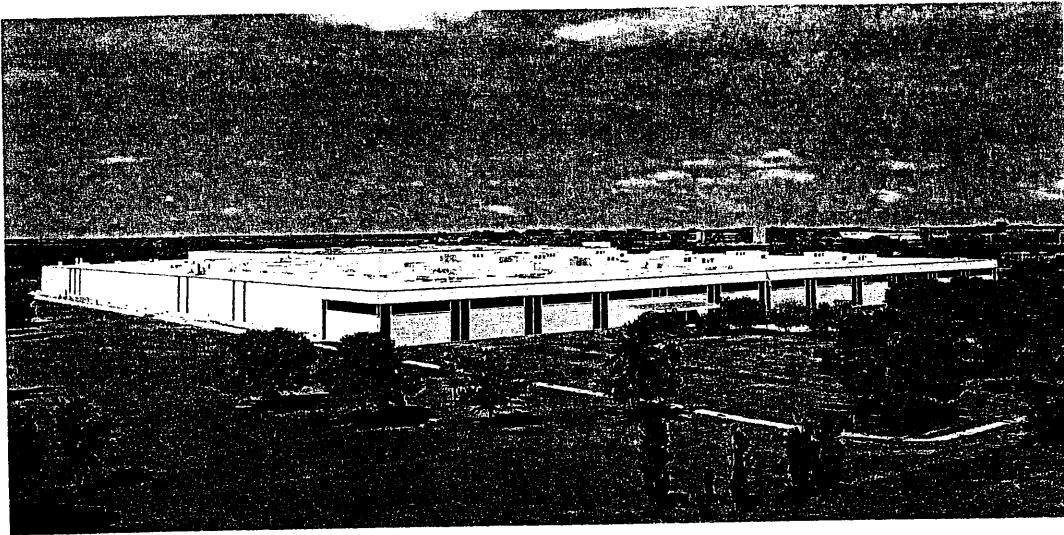
Technical support issues are initiated by end users to our toll free customer service number. Callers will be questioned on the nature of the problem and be directed to internal support team members based upon whether the issue is hardware or software related. Our customer service department has the ability to remote into any application anywhere in the world with permission from the agency. A client tool is available on our website for downloading to end user computers or servers. This allows our customer service team to accept the "invitation" upon which they take control of the agency's system with agency personnel watching from their monitor.

If customer service personnel determine there is a hardware issue with the camera, the end user is instructed to remove and send the camera to PIPS Technology under an RMA (return material authorization) number. This number is used to track the camera while at PIPS headquarters. Upon successfully repairing the camera, it is returned to the agency for them to reattach the camera to its original bracket. The camera bracket has been designed by PIPS is to ensure that when the camera was accurately aimed when it was first installed, it will return to its accurate aiming position when the repair is made.

PIPS software uses an internal logging feature whereby when the Boss software application experiences an issue, an automatic log is created. Customer service can use these key pieces of evidence to hone in on technical issues related to communication with the cameras, software bugs, or network issues. Customer service personnel can remote into the system to view these logs or have the end user email them.

Upon review of any hardware or software problem brought to our customer service team, PIPS will engage its software or network engineers from our headquarters in Tennessee, field engineers in Los Angeles or Tennessee, or our team in the U.K. if necessary.

Experience and Capabilities



Federal Signal Corporation (NYSE:FSS) is a 108 year-old leading global designer and manufacturer of products and total solutions that serve municipal, governmental, industrial and institutional customers. Headquartered in Oak Brook, Ill., with manufacturing facilities worldwide, the Company operates three groups: Safety and Security Systems, Environmental Solutions and Fire Rescue. Through the acquisition of PIPS Technology in 2007, Federal Signal Corporation gained access to a worldwide leader in automated license plate recognition (ALPR) technology. PIPS designs, manufactures, and supports its complete line of ALPR products and services for use in law enforcement, parking, tolling, and intelligent transportation systems. PIPS maintains its worldwide headquarters in Knoxville, TN, and also maintains offices in Woodland Hills, CA and the United Kingdom. With over 17,000 cameras deployed around the globe since 1997 and a wide range of patents covering our technology and its application, PIPS Technology is easily recognized as a leading provider of traffic related video imaging and license plate capture technology.

In the interest of brevity, please find the full 10K report for fiscal year 2008 at: <http://federalsignal.com/pdf/FEDERALSIGNALCO10K.pdf>. Federal Signal Corporation reported '08 revenues in excess of \$900M. Federal Signal financial statements are independently audited by Ernst & Young LLP; which found that "Federal Signal Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the COSO criteria."¹

PIPS Technology (PIPS), a Federal Signal Company, is the world leader of Automated License Plate Recognition (ALPR) technology. Providing fixed site and mobile solutions around the globe for many years, PIPS is uniquely qualified to meet the needs of the intelligent transportation market.

¹ Federal Signal Corporation



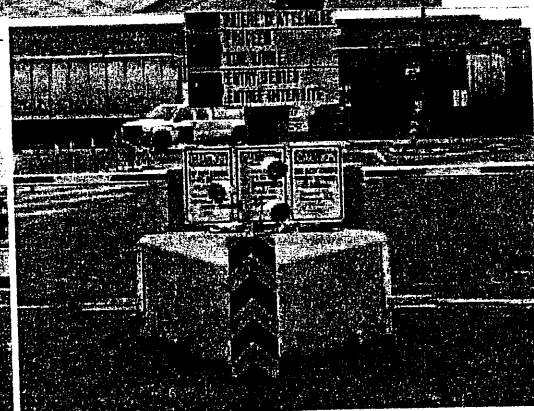
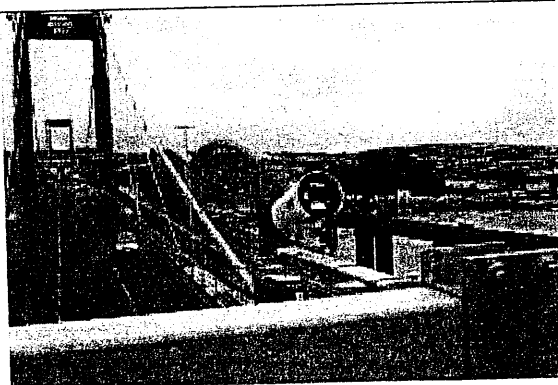
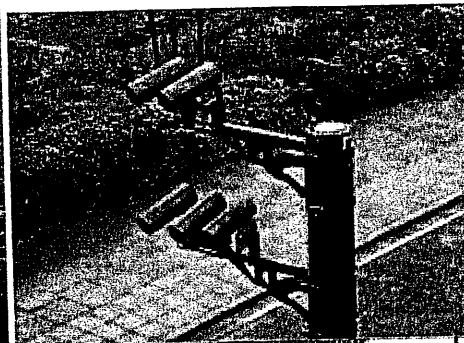
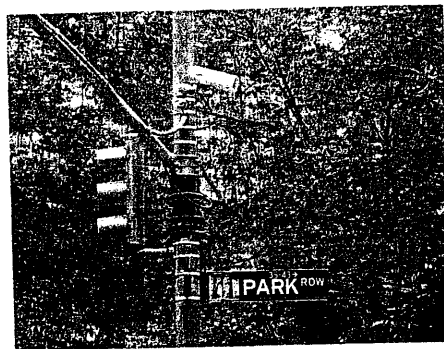
FEDERAL SIGNAL
Safety and Security Systems

Advancing security and well-being.

PIPS has systems in place in a variety of applications including public safety, surveillance, access control, commercial vehicle enforcement and weigh station applications, open road tolling, travel time measurement, parking enforcement, and a number of others. In the United States, the PIPS LPR system has been adopted by Law Enforcement Agencies, Tolling Authorities, Universities, Airports, National Laboratories, State DOT's, Municipalities, and private business. In addition to strong adoption of the technology in the U.S., PIPS has deployed LPR systems throughout Europe, Mexico, South America and Canada.

PIPS has provided a number of stand-alone solutions, and has also worked with a number of integrators to provide ALPR equipment that works in conjunction with radiological detection devices, thermal imaging cameras, RFID readers, and numerous other technologies. With PIPS' dedicated engineering team and complete design and manufacturing control, PIPS has the capability to be responsive to customers' needs.

All information contained herein depicts COTS products currently sold by PIPS, PIPS integration partners, and PIPS' distributors.



Demonstrated Installations and Accuracy

In 2007, Federal Signal Corporation purchased PIPS Technology – the leading company in ALPR recognition founded in 1983. PIPS Technology has been the cornerstone of many large Automatic License Plate Reader (ALPR) deployments worldwide. Please find the press releases attached at the end of this section that give details of several deployments that have been successfully implemented by PIPS and Federal Signal Corp.

Current Installations and Applications

Kentucky Transportation Cabinet – PIPS Technology is being used by the Kentucky Transportation Cabinet in an integrated system intended to help commercial vehicle inspectors called Integrated Safety and Security Enforcement System (ISSES). ISSES includes a radiation detection system, a license plate reader, an infrared brake monitoring system, an integrated user interface and a chemical detection unit. These features were recently added to the weigh station to detect radioactive material for safety and security, quickly and accurately identify commercial vehicles and improve the vehicle inspection process.

VDOT – Roughly 200 Spike+ units are capturing front and rear plates of both passenger and commercial vehicles in 91 lanes of traffic. The use of ALPR for violation enforcement has created substantial reductions in violation rates providing for a rapid ROI.

Transport for London – PIPS' innovative and award-winning Spike+ camera was selected as a key component of the western extension zone of the Central London Congestion Charging Scheme. Over 850 cameras were deployed as part of a contract awarded by Transport for London (TfL) to provide an enforcement infrastructure.

Los Angeles County Sheriff's Department – Under the Advanced Surveillance and Protection Plan (ASAP), the SPIKE+ camera is monitoring multiple locations throughout LA County providing the agency with notifications of stolen or otherwise wanted vehicles. Within the first 30 days, 88 vehicles were recovered with corresponding arrests for narcotics, burglary, weapons, and other violations.

California Highway Patrol – Using a network of SPIKE+ cameras throughout the state, the CHP has recovered 868 stolen vehicles worth over \$7M, and made 535 arrests from information provided by the ALPR system.

Ripon Police Department - Ripon has successfully deployed within their City limits 2 Spike+ P372 Cameras.



PIPS Technology, Inc. – LPR Project Team

Below are brief biographies of key personnel for PIPS Technology that may be involved with the installation and implementation of LPR technology for the Town of Tiburon:

Randy Mesa (Project Manager):

Mr. Mesa brings over 22 years experience in high-technology products and services, including the last three with PIPS Technology as a Regional Sales Manager. Randy has successfully supported many of the larger installations and customers throughout the San Francisco Bay Area, including: Oakland Police Department, San Francisco Police Department, Alameda County Sheriff's Department, San Mateo County Sheriff's Department and the California Highway Patrol.

Previous Public Sector experience includes multi-million dollar sales and project management experience with large scale AFIS systems for multi-state contracts. Randy has also successfully worked with some of the largest agencies in the Country including the Los Angeles Sheriff's Department and the Las Vegas Metropolitan Police Department in helping to deliver an on-time and on-budget project. Randy resides in Roseville CA and can actively participate in on-site project meetings.

Greg Lary:

Education: B.A. Business Administration, Finance – Cal State Northridge
Greg has been working with PIPS Technology for 5 years and headed up the growth of PIPS sales in the western United States. He has been deeply involved with the implementation of LPR programs with departments such as LAPD (100+ LPR vehicles, mobile LPR trailers), LASD (50+ LPR vehicles, 11 fixed LPR cameras) Post Falls PD, and the Washington State Patrol as well as spearheading a regional approach to LPR data sharing among law enforcement agencies in the western U.S. Greg actively supports the Western States Auto Theft Investigators Assn., Colorado Auto Theft Investigators Assn., AZ Auto Theft Investigators Assn., and the International Auto Theft Investigators Assn.

Greg Swaggerty – Senior Field Engineer:

Greg Swaggerty is the senior project engineer for PIPS Technology. Focused on fixed ALPR camera installations, Mr. Swaggerty has assisted customers in the installation of more than twelve hundred cameras in his career with PIPS technology over the last six years. In his previous employment, Mr. Swaggerty supervised the installation of automated predictive maintenance systems on critical industrial systems. He graduated the University of Tennessee in 1994 with a Master of Science in nuclear engineering and a Bachelor of Science degree in electrical engineering.

Jacques Lilavois – Field Technical Support:

Jacques has over 10 years experience in Telecom main frame/server industry prior to working for PIPS Technology and has held positions of Production Lead, System Test Technician, Manufacturing Engineering Lead, Project Manager, and Technical/Field Support Engineer. In addition, he has 4.5 years total technical field support experience: Network, hardware, install and remote support as well as 2.5 years at PIPS Technology in ALPR Technical/Field Support and initial customer install/training.

John Atkinson – Field Technical Support:

John has worked in the integrated hardware/software systems field for over 15 years, supporting various industries including rental car, military, and telecommunications and has over 20 years of experience working with controlled camera systems. John has many certifications from various equipment manufacturers for various operating platforms. Prior to joining Federal Signal, John recently worked in the field of software training and support for a provider of security access software solutions to a large international customer base including Department of Defense, multinational financial institutions and the healthcare industry.



FEDERAL SIGNAL

Safety and Security Systems

Advancing security and well-being.

References

Los Angeles County Sheriff's Department

Sgt. John Gaw
Communications & Fleet Mgt. Bureau
1277 North Eastern Avenue
Los Angeles, CA 90063
(562) 345-4476
jlgaw@lasd.org

Cincinnati Police Department

Capt. Jeff Butler Jr.
310 Ezzard Charles Dr
Cincinnati, OH 45214-2883
(513) 263-8145
Jeff.Butler@cincinnati-oh.gov

Post Falls Police Department

Scot Haug
Chief of Police
1717 E Polston Ave
Post Falls, ID 83854-5393
(208) 773-3517
shaug@postfallspolice.com

Jefferson Parish Sheriff's Department

Chief Deputy John Thevenot
725 Maple Street
Harvey, LA 70058
(504) 364-5405
thevenot_jl@jpsso.com

Ripon Police Department

Richard A. Bull
Chief of Police
Ripon Police Department
259 N. Wilma Avenue
Ripon, California 95366
(209) 599-2102 (Office)
(209) 599-4034 (FAX)
rabull@cityofripon.org

Existing Fixed LPR Projects - Confidential

Los Angeles Sheriff's Department – La Habra Heights, CA:

Size of system: 4 lanes
Technologies used: P372 cameras
Year of Completion: 2007
Total project budget: \$50k
Name of contact and phone: Sgt. John Gaw, (562) 345-4476

Los Angeles Sheriff's Department – Compton Mall, CA:

Size of system: 5 lanes
Technologies used: P372 cameras
Year of Completion: 2008
Total project budget: \$100k
Name of contact and phone: Sgt. John Gaw, (562) 345-4476

Washington State Patrol – Ferry Terminal Security Project – Bainbridge/Colman Terminals:

Size of system: about 12 lanes
Technologies used: P372 cameras
Year of Completion: 2008
Total project budget: \$400k
Name of contact and phone: Lt. Travis Matheson, (360) 704-2246

Jefferson Parish Sheriff's Department – New Orleans:

Size of system: 30+ lanes
Technologies used: P372 and P382 cameras
Year of Completion: 2008/2009
Total project budget: \$1M+
Name of contact and phone: Chief Deputy John Thevenot, (504) 364-5405

Ripon Police Department, CA – Jack Tome Road:

Size of system: 1 lane
Technologies used: P372
Year of Completion: 2008
Total project budget: \$15k
Name of contact and phone: Chief Richard Bull, (209) 599-2102

Post Falls Police Department, Idaho – I-90:

Size of system: 4 lanes
Technologies used: P372 Spike
Year of Completion: 2008
Total project budget: \$50k
Name of contact and phone: Chief Scot Haug, (208) 773-3517

California Highway Patrol – I-5 San Onofre & Redding, I-15 Temecula, SR-68 Indio:

Size of system: 16 lanes
Technologies used: P366 Camera
Year of Completion: 2005-2007
Total project budget: \$500k
Name of contact and phone: Officer Dennis Slusser, (916) 445-0752, ext. 2423



ELIZABETH THE SECOND,

by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Our other Realms
and Territories Queen, Defender of the Faith, to

PIPS Technology Ltd

Greeting!

We recognising the outstanding achievement of the said Award winner as demonstrated in the application
of innovation in Our United Kingdom of Great Britain and Northern Ireland, Our Channel Islands and Our
Island of Man and wishing to show Our Royal Favour do hereby confer upon it:

THE QUEEN'S AWARD FOR ENTERPRISE: Innovation

for a period of five years from the twenty-first day of April 2005 until the twentieth day of April 2010.

We hereby give permission for the said Award winner during the five years of the currency of this Our Award:

to fly the authorised Award flag and to display the Award emblem in the manner authorised

by Our Warrant of the third day of April 2001;

and to use and display in the manner prescribed in Our said Warrant the flags and

emblems of any former Queen's Awards which it currently holds.

Given at Our Court of Saint James's under our Royal Sign Manual this twenty-first day of April 2005 in the
fifty-fourth year of Our Reign.

by the Sovereign's Command



**PIPS
TECHNOLOGY**
A Federal Signal Company

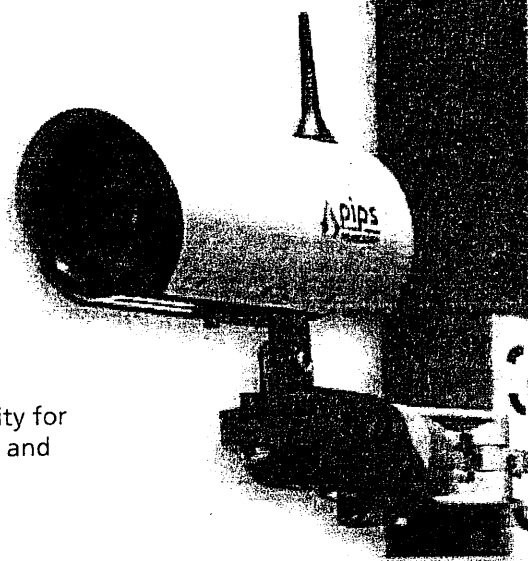


Spike+ Model #P372P

|| Compact, Rugged Dual-Lens Camera with
Integrated ALPR Processor

|| Versatile, Easy to Use, Cost Effective
Installation and Deployment

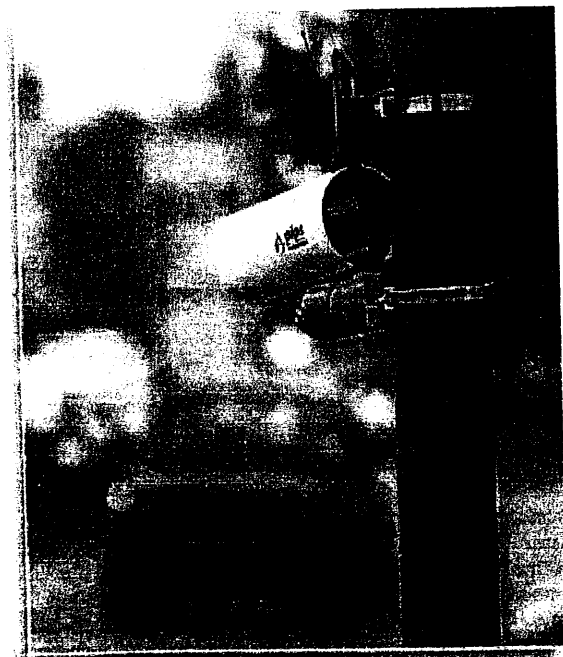
|| Ideally Suited for Fixed Site Applications



Seamless operation with PIPS software applications provides functionality for access control, travel time measurement, violation enforcement, tolling and congestion charging and covert security scenarios.

Features of Spike+ include:

- Dual channel camera (integrated infrared and color)
- Patented "triple flash" technology varies infrared camera settings to obtain highest confidence plate read
- Rugged weatherproof enclosure sealed to IP67 Standards
- Patented (internal) real-time video self-triggering
- External trigger input supported
- TCP / IP Ethernet with socket and FTP protocols, relay output, RS232, true IP connectivity over GPRS / GSM
- Standard software JPEG compression



- Ability to send SMS text messages on database hits or events
- Optional hardware JPEG compression capabilities
- Optional compact flash storage of up to 6GB
- Low power operation (12-18V)
- Battery power capability for covert temporary deployments
- Fully web-enabled, IP-addressable device
- Optional 128-bit hardware data encryption

Benefits:

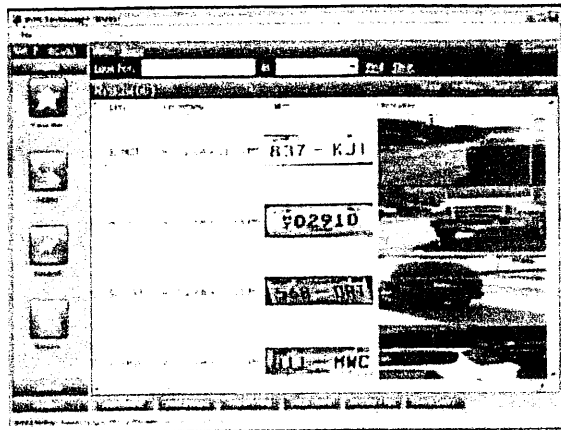
- Operation in total darkness, bright sunlight, or adverse weather conditions
- Superior read quality and confidence
- Excellent plate capture rates with internal or external triggering for versatility
- Multiple connectivity options for ease of integration into other systems
- Local storage for buffering of data
- Protection / security of data
- Configuration and monitoring from any standard web-browser

PIPS Technology

the most advanced license plate recognition systems in the world

BOSS® 3.0 BACK OFFICE SYSTEM SOFTWARE

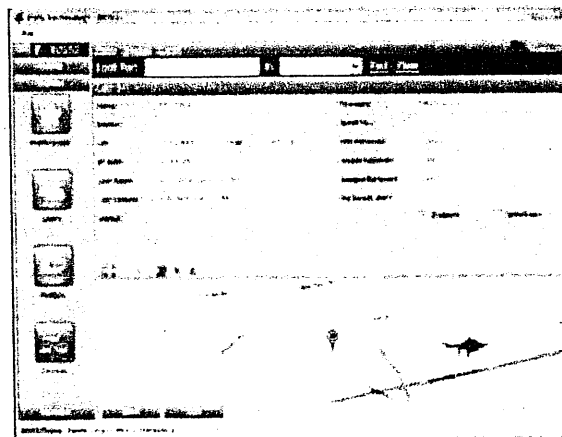
> Features



Manage users and data from both mobile and fixed Automated License Plate Recognition (ALPR) deployments

Provides a central repository for all captured license plate data as well as the tools to support data analysis, data queries and reporting

With the PIPS Back Office System Software, users can search across multiple BOSS system deployments (inter- and intra-agency), using basic parameters such as time and date, plate number (full or partial), or search a radius around a known address to identify potential suspects.



Add, delete or modify user privileges for security reasons

Add databases of interest and synchronize data across deployments

Seamless BOSS-to-BOSS sharing of hotlists, reads and alerts

Setup instant remote notifications of database hits via e-mail or text messaging

Map of reads and hits based on GPS coordinates

Data networking and dispatch client

Query historical data on partial plate, date/time, geographic location with search radius and more

Automatic monitoring of numerous hotlists for updates with synchronization across all mobile and fixed deployments

Improved security, adheres to U.S. FIPS data security standard (AES 256-bit encryption)

Built-in Active Directory/LDAP user authentication integration

Improved mapping (GIS) functionality

Support for secure handling of covert, sensitive hotlists

Allows hotlist data import from "any source, any format"

Real-time monitoring and alerting from multiple ALPR cameras

Multi-language and internationalization support



Technical Specifications

General

1. **Understand and comply.** The proposed PIPS P372 ALPR camera is design exclusively for fixed applications.
2. **Understand and comply.** The proposed PIPS ALPR camera is designed for 7x24 service.
3. **Understand and comply.** The proposed PIPS P372 is a compact, rugged dual-lens camera with integrated ALPR processor. It is designed for seamless operation with PIPS software.
4. **Understand and comply.** The P372 camera is can operate in wireless environment.
5. **Understand and comply.** The proposed ALPR cameras will send data directly to the PIPS BOSS application which will store the data in a SQL database.
6. **Understand and comply.** The proposed ALPR camera has the ability to temporarily store data in the compact flash until data transmission is completed.
7. **Understand and comply.** The PIPS ALPR camera can read accurately 95% of the time when presented "readable" plates in the field of view.
8. **Exception:** A plate could conceivably be several feet out of the field of view of the cameras, i.e. the shoulder of the roadway. It would not be feasible to count this against the accuracy measurement unless a more detailed requirement is specified for the field of view.
9. **Partial Exception.** The system will capture an infrared black and white photo of the license plate. The BOSS application as the ability to provide a view of the plate where an operator could conceivably determine the state of issuance.
10. **Partial Exception.** The system will read and capture reflective license plates.
11. **Understand and comply.** The PIPS solution can read plates in excess of 55 miles per hour. The PIPS system is rated upwards of 160mph.

12. **Understand and comply.** PIPS has proposed our Back Office System Software (BOSS). BOSS provides a central repository for all captured license plate data as well as the tools to support data analysis, data queries and reporting. The BOSS application allows the user to add, delete or modify user privileges, add databases of interest, set-up instant remote notifications of database hits via email or text messaging. BOSS allows the user to query historical data on partial plate, date/time and geographic location. BOSS automatically monitors numerous hot-lists for updates with automated synchronization. BOSS also supports for secure handling of covert and sensitive hot-lists. BOSS provides real-time monitoring and alerting from multiple ALPR cameras.
13. **Understand and comply.** The P372 camera is fully web-enabled, IP addressable device that can be configured and monitored from any standard web-browser. Future BOSS connectivity (v3.0.4) will allow for Query and Reporting through a web-enabled interface.
14. **Understand and comply.** The PIPS BOSS application supports this feature.
15. **Understand and comply.** The PIPS BOSS application supports this feature.
16. **Understand and comply.**
- A) The PIPS ALPR camera automatically uploads captured plates from the field.
 - B) The BOSS application can download updated databases, however there are no settings downloaded to the cameras (See answer #13.
 - C) See #13.
 - D) The PIPS BOSS application has this feature.
 - E) The PIPS BOSS application has this feature.
 - F) The PIPS BOSS application has this feature.
17. **Understand and comply.** PIPS has included a Microsoft SQL Express database engine that can be used to store the plate reads. The BOSS application will access this database on demand. The Microsoft SQL Express database has a limit of 4GB. Depending on the length of time the Town of Tiburon plans on keeping their plate reads, a full SQL license should be considered (at additional cost). PIPS can provide consultation on this subject upon request. If the Town of Tiburon already has a full MS SQL license, PIPS can utilize it with no additional cost.
18. **Understand and comply.** The PIPS P372 Spike+ camera is a rugged weatherproof enclosure sealed to IP67 standards.

Camera and Camera Assemblies

1. **Understand and comply.** The proposed camera can operate in total darkness, bright sunlight or adverse weather conditions.
2. **Understand and comply.** The proposed camera is a dual channel design with an integrated infrared and color lens.
3. **Understand and comply.** The proposed camera exceeds this requirement with IP67 conformity.
4. **Understand and comply.** The proposed camera includes TCP/IP Ethernet connectivity.
5. **Understand and comply.** Options of the P372 Spike+ camera include, FTP protocols, relay output, RS232, GPRS/GSM connectivity.
6. **Exception.** The PIPS cameras optionally support hardware and or software JPEG compression.
7. **Understand and comply.** The P372 camera is fully web-enabled, IP addressable device that can be configured and monitored from any standard web-browser.
8. **Understand and comply.**
 - A) External trigger input is supported.
 - B) The P372 camera supports up to a 4GB CF compact flash card. This used for internal software and buffering of LPR data in the event the communications link to the back office server is disrupted.
 - C) The P372 camera also optionally supports 128 bit hardware data encryption.
 - D) The P37s camera can also support 802.11b Ethernet bridge with antenna for Wi-Fi.
 - E) The camera can support optional GPRS/GSM or CDMA modems.
9. **Understand and comply.** The proposed camera is designed for low-power operation. (12-18v).
10. **Understand and comply.** The proposed cameras will include all necessary mounting hardware.

Licenses

1. **Understand and comply.** The BOSS system has a onetime license fee based upon concurrent users. There is not a camera license fee. The license is perpetual unless additional concurrent users are requested. Updates to the system are covered under the warranty period or when under a maintenance and support agreement after expiration of the factory warranty.

March 29, 2010

Mr. Randy Mesa
PIPS Technology
11230 Gold Express Drive #310
Gold River, CA 95670

Subject: Automated License Plate Reader System Solicitation of Proposals

Dear Mr. Mesa:

The Town of Tiburon invites your company to submit a proposal to furnish and install an Automated License Plate Reader (ALPR) System. The field elements of the ALPR System will be installed at two locations, one on Tiburon Boulevard (SR 131) and the other on Paradise Drive. This letter, together with attached technical specifications comprises the Solicitation of Proposals (SOP) for an ALPR System.

Background

The Tiburon peninsula has about 12,000 residents. The majority live in the Town of Tiburon. Access to the peninsula is via one of two roadways: Paradise Drive, a county road, and Tiburon Boulevard which is also a state highway (SR 131). The most common property crime occurring in Tiburon is theft, either of vehicles or from vehicles and residences. In 2007 and 2008 losses totaled just over \$700,000.

Following a sharp increase in thefts in February of 2008, the Tiburon Police Department focused heavily on these cases and made a number of arrests. It was concluded that additional arrests could have been made if we had a reliable method of identifying those vehicles who had entered and left the Tiburon peninsula during the hours when most offenses occurred.

Based on discussions with other similar municipalities, the Town has determined that the most efficient and cost effective method of vehicle identification would be the employment of a Automated License Plate Reader System to capture license plate images of cars entering and leaving the peninsula along with the time each vehicle's license plate image was captured. Given that there are the two access points to and from the Tiburon peninsula, we have determined that the placement of this ALPR System including the cameras and associated equipment would be best located near the Town limits on Paradise Drive and on Tiburon Boulevard (SR 131).

Description of the Proposed ALPR System

The proposed ALPR System will consist of field cameras and license plate reader processing units connected to the Town's Police Department building and the central servers via a leased wireless connection. The Town of Tiburon will furnish the central servers and will procure the leased wireless links. New streetlight poles and electrical service for the ALPR System field elements will be provided by

the Town of Tiburon (see discussion below). Figure 1 provides a high level diagram of the proposed ALPR System.

The vendor shall be responsible for configuring and establishing the connection to the DOJ database. It is anticipated that an existing Internet connection at the Town's Police Department will be used for this connection.

The proposed ALPR System will have two field installations. The first installation will be on Tiburon Boulevard and the other on Paradise Drive.

The Tiburon Boulevard installation will be in the center median between Blackfield Drive and Bay Vista Way. Two ALPR cameras for each direction of travel (total of four cameras) will be installed on two new six-foot streetlight arms attached to a new streetlight pole. The electrical/communications cabinet will be installed on the new streetlight pole.

A construction contractor (under a separate contract) will furnish and install the new streetlight pole and arms and all associated infrastructure to provide electrical power to the streetlight pole. Additionally, the construction contractor will work with the selected ALPR vendor on the installation of the cameras, cabinets, associated wiring/cabling and remote communications. The construction contractor will be responsible for the installation of the leased wireless system which will be procured by the Town for communications with the central servers, and the selected vendor will be responsible for the configuration and testing of this leased wireless link.

The installation of the field ALPR units on Paradise Drive will be on an existing PG&E utility pole. The exact location is still to be determined. However, for this location, the ALPR units will be powered by the electrical service on the existing utility pole. PG&E will provide the electrical service point and the construction contractor will install the cameras, cabinets and associated wiring/cabling at the direction of the ALPR vendor and PG&E.

The selected ALPR vendor shall provide consulting and technical assistance to the Town and the construction contractor during the installation, configuration, and testing of the system. A separate maintenance contract will be executed for on-going operations and maintenance of the ALPR System. This maintenance contract will include different levels of support and response times from the ALPR vendor.

Tiburon License Plate Reader System High Level Block Diagram

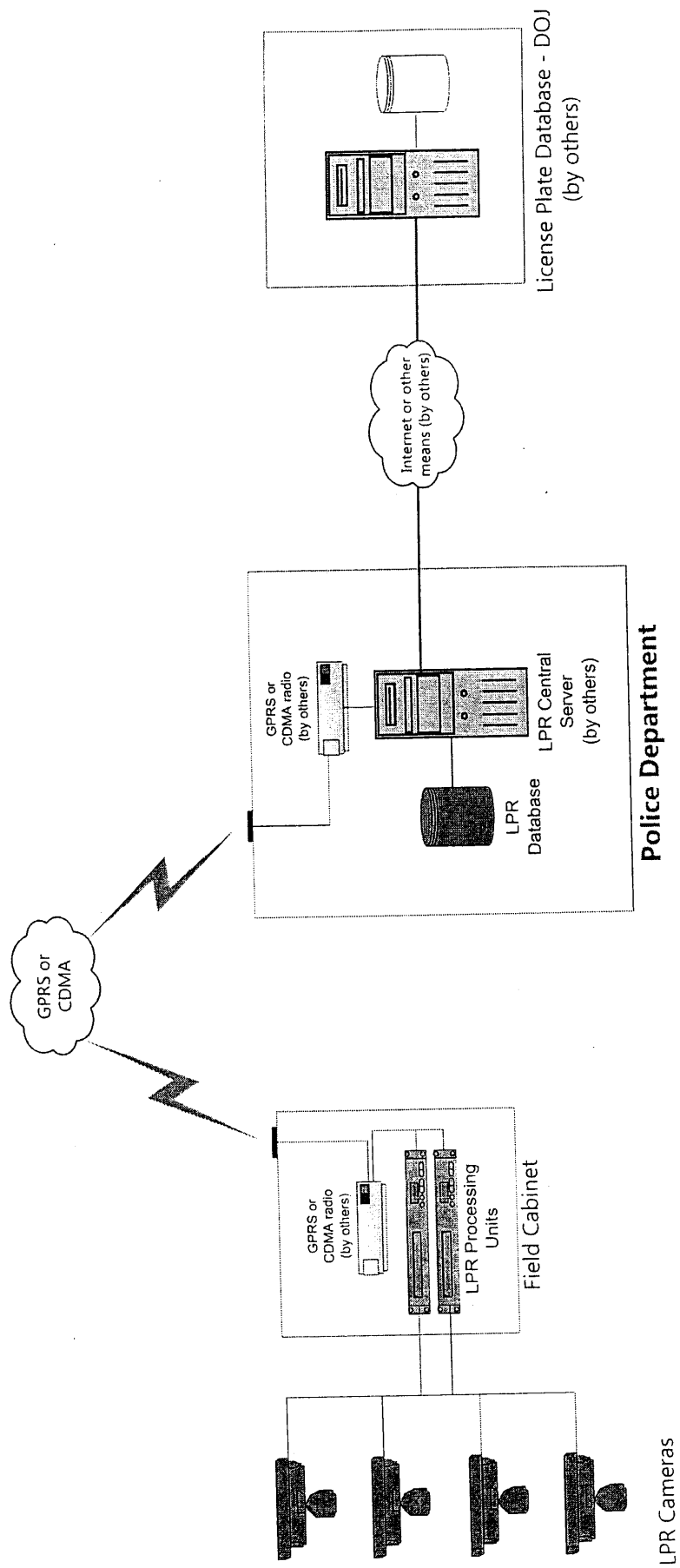


Figure 1 – High Level Diagram of Proposed ALPR System

Schedule

The construction contract is expected to begin in June 2010 with completion slated for August 2010. This APLR contract will need to be executed and the ALPR units ready to be furnished no later than the first week in July 2010 with the integration and testing completed no later than the last week in August 2010. It is during this period that the ALPR vendor is expected to coordinate with the construction contractor and the Town on the procurement, installation, configuration and testing of the system.

Proposal Evaluation

The proposals will be evaluated based on the proposed ALPR's conformance with the technical specifications and the system cost. The Town of Tiburon reserves the right to accept or reject any or all proposals submitted, waive minor irregularities in proposals, request additional information or revisions to offers, and to negotiate with any or all proposers. Any contract award will be to the company that presents the proposal that, in the opinion of the Town of Tiburon, is the most advantageous to the Town.

The proposal and all inquiries relating to this solicitation shall be submitted to:

Mike Cronin, Chief of Police
Town of Tiburon
1155 Tiburon Boulevard
Tiburon, CA 94920

For telephone inquiries, call (415) 789-2807. E-mail inquiries may be directed to mcronin@ci.tiburon.ca.us. Thank you for your interest.

Sincerely,

Mike Cronin, Chief of Police
Town of Tiburon

Proposal Due Date

If your company is interested, please submit two (2) originals and one electronic PDF version of your proposal by 4:00 pm, **Thursday, April 22, 2010**. ***Proposals received after that date and time will not be considered.*** Proposals shall be considered firm offers to provide the services and products described for a period of ninety (90) days from the time of submittal.

Proposal Contents

Proposal content and completeness are most important. Clarity is essential and will be considered in assessing the proposer's capabilities. Each proposal should include:

A. Transmittal Letter

Proposals must include a transmittal letter signed by an official authorized to solicit business and enter into contracts for the company and the name and telephone number of a contact person, if different from the signator. The transmittal letter should refer to this SOP by title and date and should include a statement that the Proposal is a firm offer to enter into a contract with the Town of Tiburon according to the terms of this SOP and the submitter's proposal for ninety (90) calendar days following its submission.

B. Title Page

Proposals must include a title page that includes the RFP subject, the name of the proposer's firm, local address, telephone number, name of contact person, the contact person's email address and/or telephone number, and the date.

C. Overview

This section should clearly convey the proposer's understanding of the nature of the work and the general approach to be taken. This section should be no more than 3 pages and should include, but not be limited to, the following:

- A summary of the proposed approach to implementation of the ALPR System; and
- A discussion of roles and responsibilities of each firm if the Contractor is a team of firms.

D. Summary of the Proposed ALPR System

This section should provide a detailed description of the proposed ALPR System. This section should be no more than 8 pages and shall not include any marketing brochures or marketing material. Photographs and graphics/charts are acceptable only if they serve to convey the details of the proposed ALPR System more clearly. At a minimum, this section should include:

- A summary of how the vendor's proposed ALPR System meets or exceeds the technical specifications
- How the company will work with the construction contractor during the installation, configuration and testing of the system
- Suggestions on alternative approaches/ideas to expedite the implementation or for cost control and mitigation of potential obstacles for the system if different than described above, or from the technical specifications.
- Description of the ALPR vendor's technical support structure for on-going operations and maintenance of the vendor's system.

The discussion shall be in sufficient detail to demonstrate a clear understanding of the project and its constraints. Any deviations from the technical specifications shall be noted with a justification for the deviation. Note that each proposal will be evaluated, amongst other things, on the conformance with the technical specifications, and that deviations from these specifications can and will likely have an impact on the evaluation of the proposer's system.

E. Qualifications and References

1. Company Qualifications: a company profile and summary of the company's qualifications in relation to this type of system. The company profile should specify the firm size and number of staff available to work on this project.
2. Team Qualifications: describe proposed team's qualifications specific to this system. Identify the personnel, including subcontractors' personnel, whose expertise or experience addresses each of the specified needs of this project. Proposers are welcome to identify and provide examples of any other qualifications they feel are critical to the successful completion of this ALPR System. Indicate where the key staff are located (primary office location).
3. Key Personnel: identify key personnel (including subcontractor personnel) and briefly discuss individual qualifications to perform each task. Provide key personnel resumes, but each resume should not exceed two pages.
4. Previous Projects: provide a succinct description (one page maximum per project) of any previous system deployments similar to the Town's ALPR System. To the extent possible, identify the client, size of the system, technologies used, year of completion, and the total project budget, and who from the project team proposed for this solicitation worked on the referenced project and the role he/she played on the project. Include the name of the contact person and their telephone number.

5. References: provide three (3) references who can attest to the submitter's experience in providing a substantially similar system to the one covered by this RFP. Include client name, point of contact, telephone, and fax number for three systems similar to work described in this SOP). Letters of endorsements may be included as an appendix.

F. Cost Proposal

Provide a cost proposal ***in a separate and sealed envelope*** to furnish and install the ALPR System. The cost proposal shall include a breakdown of the different items that form the ALPR System with line item costs. Additionally, the cost proposal shall include installation support cost per day, the assumptions on the number of working days the vendor expects to support the installation, and the work items that the vendor assumes will be performed by others. The separate and sealed envelope shall be clearly labeled "**Tiburon Automated License Plate Reader System – Cost Proposal.**"

Technical Specifications

This section provides the technical specifications of the proposed ALPR System. Unless otherwise noted, these specifications are mandatory. Failure to meet any of these specifications will result in the system being removed from further consideration.

I. General

1. The ALPR system (hereinafter referred to as the "System") shall be of a design that is primarily for fixed camera installations, i.e., non-mobile situations.
2. The System shall operate unattended 24 hours a day, seven days a week.
3. The System shall be a fully integrated and interoperable system with each element working as a single system. The System vendor shall be fully responsible for all elements provided to ensure a fully interoperable, integrated, and operating System regardless of who supplies any or all of the elements or parts furnished by the ALPR vendor.
4. The System shall work with a secured leased wireless service, e.g., GPRS for the transfer of information to and from the Town's central servers.
5. The System shall read, capture (i.e., digitize), store and upload to the central servers readable license plates in each lane at each project site.
6. The System shall capture an image of all of the characters on each readable license plate and store this in the field ALPR unit until uploaded to the central servers.
7. The System shall capture and store at least 95% (accuracy rate) of all readable license plates for the Town's specific field application – project details are available upon request. The 95% accuracy rate is the percentage of readable license plates that is successfully captured and stored in a database. A readable license plate is one that is unobstructed and undamaged. It shall be the vendor's responsibility to set the viewable area to capture all readable license plates.

8. A license that is readable (i.e., unobstructed and undamaged), but not able to be captured due to the plate not being in the field of view of the captured image shall be counted against the accuracy measurement of 95%.
9. The System shall be able to determine the state or origin of the license plate.
10. The System shall be able to read retro-reflective and non retro-reflective license plates.
11. The System shall be able to read license plates on vehicles traveling up to 55 miles per hour.
12. The System shall provide for a complete data mining software toolset for plate pattern matching and reporting.
13. The System shall be a fully web-enabled, IP addressable system capable of remote access through wireless (GPRS, CDMA, or Wi-Fi) or wired connections.
14. The System shall be able to update the internal database at least once a day with the latest database information from other regional databases (e.g., DOJ or other stolen vehicle databases) using an Internet connection. The vendor shall be responsible for establishing the connection with the database and the Town will provide the Internet connection.
15. The System shall be able to send SMS text messages or e-mail on preconfigured alerts, e.g., plate captures generates a database hit. These types of messages shall be sent within 15 seconds of the database hit.
16. The System shall be provided with central server software to allow the Town operators the ability to perform the following functions:
 - a) Upload current license plate captures from the field units (by schedule or on demand).
 - b) Download system configuration modifications on demand.
 - c) Connect to any system camera for viewing on demand.
 - d) Perform queries of existing data in the central server database.
 - e) Save and re-run queries on the central server database.
 - f) Save the queries to a print file for printing, or print out the queries directly to a printer. A minimum of ten (10) pre-defined queries be developed/configured for the Town by the vendor.
17. The System shall provide software (i.e., application software and database engine) that can be loaded and operated on a server provided by the Town.
18. The housing for any and all system equipment to be installed in the field shall be rated to IP67 standards.

II. Cameras and Camera Assemblies

1. The cameras shall be fully functional and be able to read license plates during day and night conditions.
2. The cameras shall be dual channel cameras with integrated infrared and color.
3. The cameras shall be housed in a rugged weatherproof enclosure rated to IP65 standards.
4. The cameras shall be equipped with an IP-based interface (TCP/IP over Ethernet).

5. Other options for the camera shall include FTP protocols, relay output, EIA-232, GPRS and/or GSM connectivity.
6. The cameras shall support MJPEG and MPEG4 (Part 2 or H.264) compression. Video streams will not be captured nor stored, only single image frames will be captured for the sole purpose of license plate readings.
7. The cameras shall be a fully web-enabled, IP-addressable device.
8. The cameras shall also support the following:
 - a) External trigger inputs.
 - b) Compact flash storage of up to 12GB.
 - c) 128-bit hardware data encryption.
 - d) 802.11b Ethernet bridge with antenna for Wi-Fi.
 - e) Optional GPRS/GSM or CDMA modem.
9. Each camera shall require low power for operation (up to 48V max). This voltage requirement can be increased should there be the need for other peripheral elements, e.g., heating unit. However, under no conditions shall any camera exceed a voltage rating of more than 110V.
10. The Camera assembly shall include all mountings and fasteners necessary to install the camera assembly on a streetlight pole or mast arm.

III. Licenses

1. The System shall require either a single system license or a license per camera. The system shall not require a camera and a server license. The license(s) shall be a perpetual license for use by the Town and shall include updates to the system without the need for a new license fee.