



Memorandum

TO: PUBLIC SAFETY, FINANCE,
AND STRATEGIC SUPPORT
COMMITTEE

FROM: Anthony Mata

SUBJECT: SEE BELOW

DATE: September 7, 2022

Approved

Date 9/8/2022

**SUBJECT: TECHNOLOGY-RELATED VIOLENCE MITIGATION STATUS
REPORT**

RECOMMENDATION

Accept the status report on technologies employed by the San José Police Department in geographic-specific areas for violence mitigation, with an emphasis on integration with the City of San José Privacy Policy.

BACKGROUND

The San José Police Department (Police Department) has historically appreciated the importance of employing technology-related violence mitigation to positively impact public safety. As offenders become more innovative and advanced in how they commit crime, the Police Department must counter with mitigation strategies to disrupt and investigate criminal behavior. By utilizing rapidly deployable, innovative automated license plate reader (ALPR) systems that integrate with Gunshot Detection Systems (GDS), patrol officers benefit from the early detection of gun violence. Police officers cannot be in all places at all times; however, by utilizing advanced video and acoustic hardware sensors they can dramatically increase their ability to detain and arrest violent offenders.

This report provides a detailed account of four recent or ongoing deployments of ALPRs and associated technology. These deployments include:

- V5 Systems Gunshot Detection Pilot
- Curtner Avenue and Monterey Road Pedestrian Safety Pilot
- Urban Areas Security Initiative (UASI) Grant Funded Gunshot Detection/ALPR Pilot
- American Rescue Plan ALPR Project

In addition to the above projects, through approval of the Mayor's 2022 June Budget Message, the City Council allocated \$72,000 in the 2022-2023 Adopted Budget for deployment of ALPR and gunshot detection technology to monitor a half-square mile area of a uniquely high-crime neighborhood. A detailed update is not available for this project as staff has yet to fully scope it. Also, as part of the June Budget Message, the City Manager was directed to ensure continued deployment of ALPR and gunshot detection technology complied with the City's Privacy Policy and to report findings related to this technology to the Public Safety, Finance and Strategic Support Committee. This memorandum is in response to this direction.

It is important to note that staff anticipates bringing forward a Data Usage Protocol (DUP) for Automated License Plate Readers for City Council approval in September 2022, as part of a larger update on digital privacy work. This report summarizes work on the Data Usage Protocol and related efforts to safeguard privacy, similar to the report going before the full Council, but also goes into detail on the design and outcomes of the above-listed technology deployments.

ANALYSIS

V5 Systems Gunshot Detection Pilot

Program Background

In late 2019, the Police Department submitted a Request for Information to explore wireless, self-powered, portable, video, and acoustic hardware sensors with gunshot event detection, license plate reader technology, and real-time alerting. The Department was seeking continuous monitoring to both detect and localize the source of gunshots and provide real-time location information for each triggering event. To facilitate a comprehensive public safety network, the GDS would be implemented in a quarter-square-mile segment of the city for a trial period not to exceed 6 months. In October 2020, a single vendor, V5 Systems, responded to the Request for Information and was selected to implement the pilot program.

The V5 system detects a gunshot in much the same way a human learns to recognize and classify sounds. When multiple units are deployed, they work together to triangulate the source of one or more gunshots, determining precise locations and sending audio alerts via email and/or text to authorized law enforcement personnel in under 60 seconds. The GDS, in combination with cameras and ALPR technology, was intended to provide the Police Department with a platform to solve violent crime that was portable, adaptive, cost-effective, and interoperable.

In an effort to choose the most advantageous geographic area of San José to pilot the system, the Police Department performed two separate comprehensive studies of violent crime in San José. Because crime statistics don't paint the complete picture, the Police Department also considered topography, community support, and anecdotal information from patrol officers and command staff. After complete evaluation and consideration, an area bounded by Eden Avenue, Payne

Avenue, Winchester Boulevard, and Impala Drive was selected, commonly known as the Cadillac/Winchester neighborhood. Cadillac/Winchester is a Project Hope neighborhood.

Once V5 Systems was selected as a vendor, the Police Department conducted a violent crime mitigation study. The purpose of the study was to maximize the efficiency and effectiveness of the system based on the unique geography of the Cadillac/Winchester neighborhood and the functionality of the V5 technology. The study examined topography, crime patterns, ingress and egress points, and privacy. It included a deployment overview and equipment summary which focused on device (cameras, gunshot detectors, and license plate readers), location, and field of view.

The system was installed and activated on May 1, 2021 and was originally scheduled for a minimum deployment of three months in the Cadillac/Winchester neighborhood.

Impact

From the outset, the level of support from V5 was inadequate to support the system. Although the technology proved to be beneficial to both a robbery and homicide investigation, the V5 system was fraught with insurmountable problems related to the quality of evidence required for a lawful arrest and successful prosecution.

For example, Police Department homicide detectives were investigating a murder that took place in the Cadillac/Winchester neighborhood in September 2021. The V5 System captured a license plate associated with a suspect vehicle. It was soon discovered that the timestamp of the capture was inaccurate. V5 acknowledged the shortcomings of its system and assigned an engineer to facilitate a solution. However, beginning in September 2021, V5 Systems became financially insolvent and gradually was non-responsive to calls and emails from City staff. A decision was made to terminate the pilot and a request was made to remove the system from City infrastructure. In August 2022, the system was removed as a City vendor.

Privacy

On January 24, 2017, the City Council approved usage guidelines for ALPR technology. These guidelines are included in the Police Department Duty Manual as section L4207. The V5 deployment was governed by this Duty Manual section. It also underwent a privacy impact assessment and was vetted by the Cybersecurity Office.

As of the writing of this memorandum, the 2017 guidelines are still in effect, but as noted above, staff plans to bring forward a new protocol to City Council in September 2022. Development of this new protocol is discussed in the next section.

Community Outreach

To appropriately inform and educate the public regarding any potential privacy concerns, operational procedures, and benefits, the Police Department conducted a series of public information sessions relative to the GDS/ALPR Pilot. These information sessions were conducted in person, in the Cadillac/Winchester neighborhood, and virtually via Webinar. The public information sessions were staffed by both civilian and sworn members of the Police Department including subject matter experts, division captains, members of the Chief's office, and crime prevention staff. Each session was held in both English and Spanish and included presentations, panel discussions, and an opportunity to ask questions.

Future Plans

Due to the insolvency and dissolution of V5 Systems, the V5 Gunshot Detection Pilot was terminated prior to the originally scheduled date. Additionally, data necessary to evaluate performance metrics were deleted from the V5 user interface by the vendor. Pursuant to the City of San José Project Charter dated November 30, 2020, at the conclusion of the six-month pilot period, the Police Department was to produce a report evaluating the efficacy of the system. However, after consultation with the Information Technology Department, it was deemed futile to attempt to author a report based on missing and incomplete data.

Police Department forensic analysts and detectives, however, did appreciate the potential value of both GDS technology and ALPR technology. Although the V5 Gunshot Detection Pilot was terminated without tangible metrics, anecdotally, investigators conveyed the value of the solution to the Project Manager and recommended that alternative vendors be considered.

Curtner Avenue and Monterey Road Pedestrian Safety Pilot

Program Background

This pilot was proposed by Councilmember Esparza and approved by the City Council in September of 2021.¹ The pilot was introduced by Councilmember Esparza in response to multiple vehicular fatalities and hit-and-run collisions at the Curtner and Monterey intersection.

ALPR cameras were purchased from Flock Safety. Flock Safety was chosen based upon multiple factors, including but not limited to, strong testimonials from neighboring police agencies, the ability to lease the technology, reputation, and the ability to share hotlist alerts with most Police Departments in the area who are currently utilizing the Flock ALPR system. Hotlist alerts are a mechanism for police investigators, both internally and in collaboration with neighboring agencies, to be notified, in real-time, if a suspect vehicle has been identified by an ALPR camera.

¹ <https://sanjose.legistar.com/View.ashx?M=A&ID=890209&GUID=C5FDBE68-AE06-41B6-BBE9-C1F335B35745> (Item 4.1)

In May of 2022, four Flock ALPR cameras were installed at the intersection of Curtner Avenue and Monterey Road. The Police Department commenced department-wide training in June of 2022 and the Flock system is currently operational. Sworn and professional staff can access the Flock System via mobile devices, desktop computers, laptops, or the Mobile Data Computers in patrol cars. Police Department sworn and professional staff cannot access the Flock user interface without first completing the Department-approved training.

Impact

As anticipated, the Flock ALPR System has proven to be invaluable. In June 2022, a suspect murdered a person in San José. During the murder, the suspect had a woman and two young children in his car. The suspect fled to the Central Valley with the woman and two young children and committed a second murder. Through interagency sharing of ALPR camera data, the suspect was tracked and located by Police Department detectives via the Flock user interface as he drove back to San José. This collaboration was made possible by the installation, training, and functionality of the Pedestrian Safety Pilot Flock System.

Additionally, in July 2022, the Gilroy Police Department solved an armed bank robbery using the Flock System. The suspects in the Gilroy robbery were directly connected to a series of bank robberies that had occurred in San José in 2021 and 2022. San José Police Department Robbery Detectives were investigating these cases for nearly a year with limited success. These suspect vehicles were all stolen, and therefore of limited evidentiary value. However, the Flock System was able to identify a common car following both stolen vehicles. This car was not stolen and led to the identification and arrest of one of the robbery suspects. Flock ALPR data provided information that connected the suspect vehicles from the Gilroy robbery to suspect vehicles in the San José bank robberies. The case is currently still under investigation.

In August 2022, a vehicle associated with a felony shooting passed through the Monterey/Curtner intersection. Police Department marked patrol units were in the immediate area and received an alert from the Flock System in their patrol cars. Patrol officers immediately located the suspect vehicle, confirmed that the plate matched the felony alert, and conducted a car stop. The car stop led to the positive identification and arrest of a shooting suspect.

Also in August 2022, a vehicle associated with an armed robbery was located by detectives using the Flock System. The Flock System identified the vehicle at the intersection of Curtner Avenue and Monterey Road. From the evidence obtained through the Flock System, detectives developed probable cause for an arrest warrant. The warrant was subsequently issued by the Santa Clara County Superior court. The case is still under investigation by Police Department Robbery detectives.

Privacy

In early 2022, the Digital Privacy Officer and the Police Department ALPR Project Team began collaborating on a draft DUP for ALPR Technology. This new DUP is intended to replace the

original ALPR usage guidelines approved by the City Council in 2017. If approved by the City Council, it will cover the Curtner and Monterey Pilot as well as the other planned technology deployments discussed in this memorandum. Its purpose is to ensure authorized usage of ALPR technology that complies with state, federal, and local laws, annual reporting requirements on ALPR usage, and an ongoing avenue that provides for public feedback on ALPR usage. The DUP also establishes requirements regarding authorized uses, prohibited uses, operational procedures, data collection, notice, retention and minimization, access and accuracy, accountability, sharing, equity and community engagement, storage and security, training, and annual data usage reporting requirements. The development of this DUP was informed by the community outreach efforts described below. Staff plans to bring this DUP forward for City Council consideration in September 2022.

Community Outreach

To promote public awareness regarding ALPR usage and traffic surveillance policy in the city, the Police Department, Information Technology Department's Digital Privacy Officer, and the City Manager's Office of Communications conducted community outreach meetings in July and August 2022. The outreach meetings were multilingual and well attended and highlighted how the City has attempted to balance safety, privacy, and the equity implications of the technology. Additionally, residents were directed to online resources, including the multilingual draft ALPR policy available at sanjoseca.gov/digitalprivacy.

The meetings included a Citywide Zoom session and several in-person/online outreach community meetings in neighborhoods with high traffic fatalities, "smash-and-grab" burglaries and robberies, and communities with future ALPR camera deployments, such as in Council Districts 1, 3, and 7. Interpretation services were made available at these meetings with a high number of persons with limited English proficiency and in the Citywide Zoom meeting to ensure public engagement. More than 200 families were reached in person and another 100+ registered for the Zoom webinar. There have been in excess of 150 views on YouTube across the English, Spanish, and Vietnamese platforms.

Also, the City Manager's Office of Communications allowed for the submission of questions via email and social media. Forty-six questions were received and answered. The questions addressed issues such as privacy, access, technology, retention, encryption, and policy.

Future Plans

Historically, San José Police Department investigators have accessed ALPR data from various sources, including, law enforcement interagency sharing and patrol car mobile mounted units. This ALPR data has proven to be indispensable in solving serious and violent cases. The Curtner Avenue and Monterey Road Pedestrian Safety Pilot is the first fixed (non-mobile) ALPR system deployed in San José by the City and is intended to deter and benefit the investigation of vehicular fatalities and hit-and-run collisions. If the benefits of the system are as anticipated,

ongoing funding will be considered as part of the budget process, in the context of the City's overall fiscal condition and other departmental program priorities.

UASI Grant Funded Gunshot Detection/ALPR Pilot

Program Background

In 2020, the San José Police Department requested and received anti-terrorism funding from the Urban Areas Security Initiative (UASI) in the amount of \$230,000 for a GDS/ALPR System. In April of 2022, brand name/sole source documents were approved by San José City purchasing and the San José city Digital Privacy Officer for Flock Safety. Funding allows for coverage of six neighborhoods (half a square mile in size each) with gunshot detection devices and corresponding ALPR cameras.

In June of 2022, the Police Department ALPR Project Team met to discuss potential neighborhood deployment. As part of that process, and to choose the most advantageous geographic areas of San José to pilot the system, the Project Team reviewed a five-year gun violence data report and met with Divisional Captains, Deputy Chiefs, and select police lieutenants for additional anecdotal input. The five-year gun violence data report was completed by the Police Department's Crime Analysis Unit and is a City-wide, historical, geospatial exploration of violent crime incidents involving firearms.

Because crime incident data does not provide a complete picture regarding the neighborhoods that would most benefit from a gunshot detection/ALPR system, the Project Team also considered topography, equity, community feedback, and recent crime trends. The neighborhoods currently under consideration for gunshot detection/ALPR system installation are as follows:

- Guadalupe/Washington (Western Division, Council District 3)
- McLaughlin/Owsley (Western Division, Council District 7)
- Poco/McCreery (Foothill Division, Council District 5)
- Story/Kollmar (Foothill Division, Council District 5)
- Roeder/Roundtable (Southern Division, Council District 2)
- Jeanne/Forestdale (Central Division, Council District 3)

The ALPR Project Team is currently in the process of mapping the system for deployment. Next steps will be to collaborate with vendor engineers to refine deployment mapping, secure permits, and begin installation.

Impact

While the City does not yet have results from the UASI Grant Funded Gunshot Detection/ALPR Pilot, reductions in crime and an increase in solved cases have been documented in other

jurisdictions including the City of Morgan Hill, the City of Milpitas, the City of Vallejo, and the City of Gilroy utilizing the Flock ALPR System. GDS technology, in various forms, has proven beneficial in major U.S. cities including, San Francisco, California and Milwaukee, Wisconsin. It is anticipated that the City of San José will have similar success.

Privacy

As discussed above, staff is planning to bring a new DUP for ALPR technology before the City Council in September 2022. If approved by the City Council, this new DUP will cover this technology deployment.

Community Outreach

To appropriately inform and educate the public regarding any potential privacy concerns, operational procedures, and benefits, the Police Department plans to host a series of public information sessions relative to the UASI Funded GDS/ALPR Pilot. These information sessions will be conducted in person, in the identified neighborhoods, and virtually citywide via Webinar. The public information sessions will be staffed by both civilian and sworn members of the Police Department, including subject matter experts, division captains, members of the Police Chief's office, and crime prevention staff. Each session will be multilingual when appropriate and include presentations, panel discussions, and an opportunity to ask questions.

Future Plans

After a complete study and evaluation of outcome measures relative to the pilot are completed, relevant staff will consider the results and evaluate the system for procurement and ongoing funding.

American Rescue Plan ALPR Project

Program Background

On November 30, 2021, Council approved the allocation of \$250,000 of American Rescue Plan funds for leases of license-plate reading cameras, data storage, and software to enable the Police Department to deter and make arrests in armed “smash and grab” burglaries and robberies, auto thefts, and drive-by shootings.² This funding would allow for the purchase of approximately 90 ALPR cameras for city-wide deployment. In March 2022, the Police Department authored and submitted a Request for Proposal to City Purchasing, and in June 2022, City Purchasing assigned the RFP to a buyer. The Police Department ALPR Project Team is currently working with the assigned Purchasing buyer in preparation for the competitive procurement process.

² <https://sanjose.legistar.com/View.ashx?M=M&ID=890220&GUID=F3A0C15D-AA59-4510-A741-E20206A6DAE1>

Impact

As shown in the *Impact* section of the Curtner Avenue and Monterey Road Pedestrian Safety Pilot segment, ALPR technology, even on a small scale (one city intersection) can yield immediate results. Over the past two years, through interagency sharing of ALPR data, the Police Department has solved multiple robberies, homicides, kidnappings, and missing persons cases.

The following is an example of a successful San José case study from 2020 using ALPR:

Detectives responded to a violent home invasion robbery where the victim was shot and killed while in his bed. A canvass of the area quickly identified a suspect vehicle fleeing the scene. Initially, the video was only able to show a partial license plate. Detectives created a TRAK³ flier with the vehicle description and the partial license plate. Shortly after the TRAK flyer was sent to law enforcement agencies in the area, detectives were contacted by officers from two outside police agencies, both of which have access to ALPR. Both agencies were able to search the partial plate, compare possible matches to the TRAK flier, and made a positive match. One of the agencies continued to get active hits on their ALPR system and were able to locate the vehicle. The suspect was stopped in the vehicle and ultimately charged with murder.

Successes like the example above have been achieved without the benefit of a city-wide ALPR system. Thus, it is logical to assume, that once the City of San José plans and implements an extensive ALPR system inside City limits, the public safety benefits will be significant.

Privacy

As discussed above, staff is planning to bring a new DUP for ALPR technology before the City Council in September 2022. If approved by the City Council, this new DUP will cover this technology deployment.

Community Outreach

Consistent with the Community Outreach strategies discussed above, the Police Department and City staff plan to develop a both live presentations and a citywide webinar program to inform and educate the public regarding any potential privacy concerns, operational procedures, and benefits. The American Rescue Plan ALPR Project should benefit from lessons learned during both the Curtner and Monterey Pedestrian Safety Pilot and the Gunshot Detection ALPR project. This will afford panelists and presenters the opportunity to expound upon successes and failures and provide valuable anecdotal guidance.

³ TRAK is a computer system that helps police create and electronically distribute flyers with any type of image, including the photograph of a missing child or a wanted person, to distribute information to police departments, other jurisdictions, media representatives, and the community.

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Future Plans

Through approval of the 2022-2023 Adopted Budget, the City Council allocated \$250,000 in ongoing funding for this project. This ongoing funding will allow for continuous deployment of this ALPR project.

COORDINATION

This memorandum has been coordinated with the City of San José Information Technology Department, the Department of Public Works, the Department of Transportation, the City Attorney's Office, and the City Manager's Budget Office.

/s/

Anthony Mata
Chief of Police

For questions, please contact Division Manager Frank Carrubba, San José Police Department, at francis.carrubba@sanjoseca.gov.