



Surveillance Impact Report

Automated License Plate Readers ("ALPR")
San Francisco Municipal Transportation Agency - SFMTA

As required by San Francisco Administrative Code, Section 19B, departments must submit a Surveillance Impact Report for each surveillance technology to the Committee on Information Technology ("COIT") and the Board of Supervisors.

This Surveillance Impact Report details the benefits, costs, and potential impacts associated with the use of Automated License Plate Readers ("ALPR") technology by the San Francisco Municipal Transportation Agency ("Department").

DESCRIPTION OF THE TECHNOLOGY

The Department's mission is to connect San Francisco through a safe, equitable, and sustainable transportation system.

In line with its mission, the Department uses ALPR technology to efficiently enforce State parking and other vehicle laws and to calculate parking fees in City-owned parking facilities. These uses support the Department's mission because they help ensure the sustainability of and more equitable access to the City's limited parking resources, which are part of its larger transportation system.

The Department shall use ALPR technology only for the following authorized purposes:

Authorized Use(s):

1. Enforcing parking restrictions and laws.
2. Traffic Only Lane Enforcement (TOLE).
3. Link individual vehicles to their times of entry/exit into City-owned parking garages to accurately calculate parking fees.
4. Identify vehicles that are the subject of an active investigation by the SFPD (e.g., vehicles included on "hot lists" generated by the SFPD –see Appendix B & C, page 8 of SFPD ALPR Policy).
5. Analysis and reporting on parking and curb usage.

Any use(s) not identified in the Authorized Use(s) above are strictly prohibited.

ALPR technology may be deployed in the following locations, based on Authorized Use(s):

System	Description
Parking Enforcement	Mobile ALPR cameras installed on Parking enforcement vehicles.
Parking Garage	ALPR technology located at entry and exits points in City-owned parking garages and lots. Geographic locations are available on Department's website .
Transit Only Lane Enforcement (TOLE):	Department plans to add Genetec ALPR cameras on busses, trolleys, and LRVs for TOLE.

Surveillance Oversight Review Dates

COIT Review: October 21, 2021

Board of Supervisors Review: TBD

Technology Details

ALPRs are high-speed camera systems that photograph vehicle license plates, convert the numbers and letters into machine-readable text, tag them with the time and location stamps, and upload that data into a database for later retrieval.

How It Works

The Department uses ALPR cameras for the purposes, described below.

- **Parking Enforcement:** The Department's current ALPR system used for parking enforcement consists of Genetec AutoVu Sharp IP-based ALPR cameras with onboard processing and the AutoVu Standard Software package. The cameras are Sharp V, AutoVu cameras mounted on the roofs of parking enforcement vehicles and wheel focused cameras on the sides of the vehicles. The roof top mounted cameras read the license plates and the side mounted cameras photograph the wheel/tire to compare on the second pass for time-limited enforcement. The system utilizes the Genetec software to create the user interface and in-vehicle mapping. The system utilizes cellular communication to transmit reads to the backend software. The backend software consists of the Genetec Security Center software to manage access to all uploaded plate reads, hotlists, and user-level access credentials.

ALPR data collected for parking enforcement purposes is currently handled and/or stored by Genetec, a third-party vendor.

- **Transit Only Lane Enforcement (TOLE):** The Department plans to deploy the Genetec ALPR system it uses for parking enforcement purposes on its transit vehicles for Transit Only Lane Enforcement (TOLE). The Department currently reviews video footage manually looking for violations. A pilot program is planned for the third quarter of 2021. ALPR cameras will be installed in front of transit vehicles to enforce TOLE violations (e.g., driving or stopping in transit only lanes or blocking bus stops), but only when operating inside specified enforcement zones within the City.

ALPR data collected for TOLE will not be handled or stored by a third-party vendor. The Department will remain the sole custodian of record.

- **Parking Garages:** Fixed cameras are mounted inside City-owned parking garages and lots. Cameras are triggered only when vehicles are moving over an arming loop, and cameras are positioned to focus only on license plates. The highly reliable, compact VRS-N60E Imaging unit features state-of-the-art hardware along with HTS's powerful, patented PC-based license plate recognition (LPR) and VRS-See Control management software. The hardware is optimized specifically for high performance with HTS software applications. With its built-in VRS Controller Application, the VRS-N60E provides maximum effectiveness as it's specifically engineered for optimal accuracy, confidence, and vehicle recognition solutions. HTS Imaging Units and value-added HTS solutions are field proven in over 40 countries worldwide, including the United States. Sophisticated HTS algorithms identify both the state and country of any license plate.

ALPR data collected in parking garages or lots are not handled or stored by an outside provider or third-party vendor. The Department is the sole custodian of record.

IMPACT ASSESSMENT

This impact assessment addresses the conditions for surveillance technology approval, as outlined by the Standards of Approval in San Francisco Administrative Code, Section 19B:

- A. The benefits of the surveillance technology outweigh the costs.
- B. The Department's Policy safeguards civil liberties and civil rights.
- C. The uses and deployments of the surveillance technology are not based upon discriminatory or viewpoint-based factors and do not have a disparate impact on any community or Protected Class.

The Department's use of the surveillance technology is intended to support and benefit the residents of San Francisco while minimizing and mitigating all costs and potential civil rights and liberties impacts of residents.

A. Benefits

The Department's use of ALPR technology has the following benefits for the residents of the City and County of San Francisco:

<input type="checkbox"/>	Education	
<input checked="" type="checkbox"/>	Community Development	Informs planning, policy development, and pricing for public parking spaces (e.g., for specific commercial districts).
<input type="checkbox"/>	Health	
<input checked="" type="checkbox"/>	Environment	Improves street conditions by ensuring timely turnover of parking spaces for use by city residents and visitors.
<input checked="" type="checkbox"/>	Criminal Justice	Identifies vehicles reported to, and that are subject to, an active investigation by the SFPD.
<input type="checkbox"/>	Jobs	
<input type="checkbox"/>	Housing	
<input checked="" type="checkbox"/>	Other	Helps ensure timely turnover of parking spaces, giving city residents and visitors more equitable access to limited parking resources. Ensures customers with lost tickets pay the actual value of their vehicle's stay in the parking garage.

B. Civil Rights Impacts and Safeguards

The Department has considered the potential impacts and has identified the technical, administrative, and physical protections as mitigating measures:

- **Dignity Loss:** Technical safeguards make this impact (e.g., embarrassment and emotional distress) unlikely because ALPR cameras take photos of vehicles, primarily their license plates; they do not capture images of vehicle occupants. Occasionally, images may include pedestrians who are near license plates, but these images are accidental and are purged from the ALPR system.
- **Discrimination:** Technical safeguards make this impact (i.e., unfair or unethical differential treatment of individuals or denial of civil rights) highly unlikely because ALPR applies the policies and regulations equally to all vehicles. ALPR is used to enforce time-limited parking regulations and identify scofflaw (i.e., vehicles with five or more delinquent parking citations) and stolen vehicles. As to time-limited parking enforcement, administrative safeguards make this impact minimal because ALPR technology is deployed equally in areas throughout the City where restrictions apply, and such restrictions are typically requested by the majority of residents in the corresponding communities. As to scofflaw and stolen vehicles, administrative safeguards make this impact minimal because ALPR technology is deployed for this purpose throughout the SFMTA's jurisdiction.
- **Economic Loss:** Technical safeguards make this impact (e.g., identify theft/misidentification) minimal because the ALPR system has no access to information identifying individuals, including vehicle owners or drivers. ALPR mitigates economic losses to customers of City-owned parking facilities by calculating the exact parking fees owed even in cases of lost tickets in Department owned parking facilities.
- **Loss of Autonomy:** Technical safeguards make this impact (e.g., loss of control over decisions on how personal information is used or processed) highly unlikely because the ALPR system has no access to information identifying individuals, including vehicle owners or drivers. Moreover, since data is processed mostly by the ALPR system, there is minimum human interaction.
- **Loss of Liberty:** Administrative safeguards make this impact (i.e., improper exposure to arrest or detainment due to incomplete or inaccurate data) highly unlikely because SFPD validates data (i.e., they confirm vehicles they seek are in parking garages associated with corresponding license plates) before taking any action.
- **Physical Harm:** Technical safeguards make this impact (e.g., physical harm or death) highly unlikely because the ALPR system has no access to information identifying individuals.
- **Loss of Trust:** Department limits access to the data to only authorized users. Technical safeguards make this impact (e.g., breach of implicit or explicit expectations or agreements about the processing of data, or failure to meet subjects' expectation of privacy for information collected) minimal because license plate numbers are used to identify vehicles for purposes of determining parking fees, parking violations, scofflaws, and whether they are on a SFPD hotlist.

Fiscal Analysis of Costs and Benefits

The Department's use of Automated License Plate Readers ("ALPR") yields the following business and operations benefits:

Benefit**Description**

<input checked="" type="checkbox"/>	Financial Savings	Minimizes physical chalking by Parking Control Officers (PCOs); chalking can cause repetitive motion injuries, which result in workers compensation claims filed against The City.
<input checked="" type="checkbox"/>	Time Savings	Helps PCOs cover larger geographic areas and improves effectiveness and efficiency in performing their duties.
<input checked="" type="checkbox"/>	Staff Safety	Parking staff no longer required to work within confined areas in parking garages. Also, minimizes repetitive motion injuries from physical chalking by automating the process for Parking Control Officers (PCOs) to mark vehicles.
<input checked="" type="checkbox"/>	Data Quality	Improves accuracy and simplifies parking enforcement duties. Improves data required to calculate parking fees, especially when patrons lose their parking tickets within Department owned garages.
<input checked="" type="checkbox"/>	Other	Provides higher volumes of data about parking utilization, which informs planning and policy development.

The fiscal cost, such as initial purchase, personnel, and other ongoing costs of using ALPR technology includes:

FTE (new & existing)	None. Department staff uses the ALPR data, however, maintenance and support has been outsourced.	
Classification	Users are listed in our policy in section Access A.	
	<i>Annual Cost</i>	<i>One-Time Cost</i>
Software		\$13,500
Hardware/Equipment		\$1,007,181
Professional Services		\$17,500
Training		\$850
Other		\$26,500
Total Cost		\$1,065,531

2.1 Please disclose any current or potential sources of funding (e.g. potential sources = prospective grant recipients, etc.).

SFMTA Capital Improvement Project (CIP) Budget for initial system; SFMTA Operating Budget for ongoing operations.

The Department funds its use and maintenance of ALPR technology through general operations budget and occasional grants

COMPARISON TO OTHER JURISDICTIONS

ALPR technology is currently used by other governmental entities for purposes similar to the Department's. These government entities include the cities of Alameda, Berkeley, Emeryville, Foster City, Oakland, Palo Alto, Sacramento, San Jose, San Mateo and Santa Clara.