Surveillance Impact Report

Automated Speed Enforcement
Municipal Transportation Agency

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.

The Surveillance Impact Report details the benefits, costs, and potential impacts associated with the Department's use of Automated Speed Enforcement (hereinafter referred to as "surveillance technology" or ASE or ASE Technology).

PURPOSE OF THE TECHNOLOGY

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

The surveillance technology supports the Department's mission and provides important operational value in the following ways:

The surveillance technology functions to efficiently enforce vehicle speed laws. This use supports the Department's mission to achieve zero traffic-related fatalities (Vision Zero Policy), as traffic enforcement is a critical component of the "three E's" of Vision Zero--education, engineering, and enforcement. Excessive speed is the leading contributor to traffic collisions causing serious injuries and fatalities, and this surveillance technology is intended to reduce vehicle speeding.

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

Authorized Use(s):

1.	*Enforce speed limits on City streets in accordance with California Vehicle Code sections 22425-22434 (Speed Safety System Pilot Program)*
2.	*Analysis of and reporting on speed enforcement, as required under the Speed Safety System Pilot Program.*

The surveillance technology may be deployed in the following locations, based on use case:

The surveillance technology will consist of vendor-owned automated speed enforcement cameras with onboard processing. These cameras will be mounted on city-owned streetlight poles at up to 33 locations. The cameras will be distributed among all 11 Supervisory Districts in the City's High-Injury Network (the 12% of city streets that account for 68% of serious and fatal injuries), in areas with high rates of speed-related collisions. The cameras use cellular communication to transmit data to backend

software that provides access to uploaded photographs, radar readings, and license plate information for authorized users.

Description of Technology

The surveillance technology consists of a fixed or mobile radar or laser system or any other electronic automated detection equipment to detect a violation of speed laws and utilizes cameras to obtain a clear photograph of a speeding vehicle's rear license plate. These cameras are only triggered by speeding vehicles. They do not record data unless triggered by a speeding vehicle.

Third-Party Vendor Access to Data

All data collected or processed by the surveillance technology will be handled and stored by an outside provider or third-party vendor on an ongoing basis. Vendor selection is not completed yet. The department will ensure that the selected vendor complies with all data access requirements under the state's Speed Safety Pilot Program by adding them to the final agreement.

IMPACT ASSESSMENT

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

1. The benefits of the surveillance technology outweigh the costs.
2. The Department's policy safeguards civil liberties and civil rights.
3. 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 the surveillance technology has the following benefits for the residents of the City and County of San Francisco:

	Benefit	Description
☐	Education	
☐	Community Development	
☒	Health	Health: speed cameras have been proven in hundreds of cities to reduce rates of serious injuries and fatalities due to speed. As speed is the primary factor in collisions in San Francisco, this technology could reduce the risk of roadway collisions, improving overall citywide public health.

☐	Environment	
☒	Criminal Justice	Criminal Justice: removes bias from enforcement of traffic violations and limits contact with uniformed police officers.
☐	Jobs	
☐	Housing	
☒	Public Safety	Public Safety: speed cameras have been proven to reduce the likelihood of a speed-related collision, thus improving overall public safety on roadways.

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:

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 ASE cameras take photos of vehicle rear license plates; they do not capture images of drivers or vehicle occupants. Occasionally, images may include people traveling by foot or by bicycle who are near violating vehicles, but these images are incidental and are purged from the ASE system by the vendor. This requirement will be added to the final Agreement.

• Discrimination: Technical safeguards make this impact (i.e., unfair or unethical differential treatment of individuals or denial of civil rights) highly unlikely because ASE enforces speed limits equally to all vehicles. Administrative safeguards make this impact minimal because ASE technology is deployed equally in areas throughout the City where cameras are installed. Cameras will be distributed among all 11 Supervisory Districts on the City's High-Injury Network (the 12% of city streets that account for 68% of serious and fatal injuries), in areas with high rates of speed-related collisions.

• Economic Loss: Technical safeguards make this impact (i.e., identity theft/misidentification) minimal because the ASE system provides no access to information identifying individuals, including vehicle owners or drivers.

• Loss of Autonomy: Technical safeguards make this impact (i.e., loss of control over decisions on how personal information is used or processed) highly unlikely because the ASE system provides no access to information identifying individuals, including vehicle owners or drivers. Moreover, since data is processed mostly by the ASE 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 speed cameras are tested and calibrated annually before issuing violations.

• Physical Harm: Technical safeguards make this impact (i.e., physical harm or death) highly unlikely because the ASE system has no access to information identifying individuals through DMV lookup system.
• Loss of Trust: Technical safeguards make this impact (i.e., 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 speed violations. The Department limits access to the data to only authorized users.

The administrative safeguards: The Department will secure any PII against unauthorized access, processing, disclosure, and accidental loss, destruction, or damage. ASE data collected and retained by the Department will be protected by the safeguards appropriate for its classification level(s).
To protect ASE data from unauthorized access and control, including misuse, the Department shall, at minimum, apply the following safeguards:
• Authorized users require unique login credentials and complex passwords to access ASE technology, which is accessible on portable tablets and on workstations.
• All access to and activity in the ASE system is logged and can be audited.

Technical and physical safeguards include anonymization of data, regular calibration and testing of systems, data access controls, secure data storage, data retention policies, and bias monitoring.

C. Fiscal Analysis of Costs and Benefits

The Department's use of the surveillance technology yields the following business and operations benefits:

	Benefit	Description
☐	Financial Savings	
☒	Time Savings	Helps staff remotely identify speeding violations at multiple locations, improving effectiveness and efficiency of speed enforcement.
☒	Staff Safety	Enforces speed limits without the potential for in-person traffic stops.
☒	Data Quality	Improves accuracy of data related to speeding vehicle speeding over the posted speed limits. Provides data to inform policies and regulations and allows for more immediate data to demonstrate the impacts of various traffic control measures on streets over time.
☒	Other	Provides data regarding the effectiveness of speed safety cameras over a five-year pilot period, which will inform future statewide policies regarding automated speed enforcement.

The fiscal cost, such as initial purchase, personnel and other ongoing costs, include:

Number of Budgeted FTE (new & existing) & Classification	Existing positions will be used for this technology: # employee Class # Job Description 6 8214 Parking Control Officer 1 9506 Citations Clerk 1 8167 Hearing Officer 1 5288 Transit Planner II	
	Annual Cost	***One-Time Cost***
Total Salary & Fringe	$1,400,000.00	
Software	$0.00	
Hardware/Equipment	$0.00	
Professional Services	$1,700,000.00	
Training	$0.00	
Other	$0.00	
Total Cost	$3,100,000.00	

The Department funds its use and maintenance of the surveillance technology through:

General Fund.

COMPARISON TO OTHER JURISDICTIONS

The surveillance technology is currently utilized by other governmental entities for similar purposes.

Other government entities have used the surveillance technology in the following way: Automated speed enforcement technology is used in nearly 200 communities across the United States. Many peer cities use automated speed enforcement technology as a component of a traffic safety or Vision Zero strategy. For example, New York City has used speed cameras for a decade on their high-injury streets. Their speed cameras have been remarkably effective at reducing speeding: it only took 18 weeks after installation to see a 73% reduction in speeding vehicles at camera locations.

The effectiveness of the surveillance technology while used by government entities is determined to be the following: The Transportation Agency's "CalSTA Report of Findings: AB 2363 Zero Traffic Fatalities Task Force," issued in January 2020, concluded that international and domestic studies show that speed safety systems are an effective countermeasure to speeding that can deliver meaningful safety improvements, and identified several policy considerations that speed safety system program guidelines could consider.

In a 2017 study, the National Transportation Safety Board (NTSB) analyzed studies of speed safety system programs, and found they offered significant safety improvements in the forms of reduction in mean speeds, reduction in the likelihood of speeding more than 10 miles per hour over the posted speed limit, and reduction in the likelihood that a crash involved a severe injury or fatality. The same study recommended that all states remove obstacles to speed safety system programs to increase the use of this proven approach, and notes that programs should be explicitly authorized by state legislation without operational and location restrictions.

The National Highway Traffic Safety Administration (NHTSA) gives speed safety systems the maximum 5-star effectiveness rating. NHTSA issued speed enforcement camera systems operational guidelines in 2008, and is expected to release revised guidelines in 2021 that should further inform the development of state guidelines.

Speed safety systems can advance equity by improving reliability and fairness in traffic enforcement while making speeding enforcement more predictable, effective, and broadly implemented, all of which helps change driver behavior.

Enforcing speed limits using speed safety systems on streets where speeding drivers create dangerous roadway environments is a reliable and cost-effective means to prevent further fatalities and injuries.

There have not been adverse effects of the surveillance technology while it has been used by other government entities.