Blackshear, Regina

From:	Julio Mateo <juliocmateo@gmail.com>
Sent:	Wednesday, February 8, 2023 5:43 PM
To:	CCO Clerk; Turner-Sloss, Shenise; Fairchild, Darryl; Joseph, Matt; Mims Jr, Jeffrey; Shaw, Christopher; Hollingsworth, Torey
Cc:	Beckham, Darius
Subject:	Public Comment for Dayton City Commission Re: Fusus Public Hearing
Attachments:	Lawrence MA.pdf; BART sample impact report ALPR.pdf

Dear Dayton City Commission,

I am submitting this public comment in response to the Police Department's proposal to pursue the use of Fusus, a new surveillance technology that taps onto existing surveillance cameras in businesses or other private/public entities in the City.

I understand that, if the proposal is being put to a public vote at the Commission, you probably already have the votes to approve it. So I will focus my comments on what I believe you could do to ensure that:
a. The process you followed to approve this technology complies with the Police Surveillance Oversight Ordinance No. 31886-21,
b. The final Use Policy includes at least one safeguard to protect the human rights of your constituents and ameliorate potential adverse impacts.

I expect that, if you plan to pursue acquiring Fusus after the Talen Project trial period is over and using funds other than the Ohio Attorney General's Office, you will restart the public-hearing process with updated cost and empirical information before Fusus is acquired by the City of Dayton.

When it comes to the compliance with the Ordinance, here are some things that I believe must be corrected in the Impact Report and shared with the public before Fusus is approved:
1. **The report does NOT provide any independent evaluation to support the ability of Fusus to do any of the things it claims Fusus is able to do**. The report does make a number of unsubstantiated claims about Fusus *as if* they were factual. For example, the report claims that Fusus "can be deployed to help protect students of all ages" and "create safer environments for students, teachers, and staff" and that it "enables churches, synagogues, mosques, temples, and other places of worship to increase their security", and many other claims of that sort. However, ***to my knowledge, there are no independent evaluations that support the effectiveness of Fusus to increase safety or reduce crime. I think it is important to include that fact*** in the report so that the public and Commission can understand that the claims about the impact of Fusus on safety or crime are NOT empirically based.
2. **The report does NOT include information about the cost of the technology.** The report does state that the Ohio Attorney General's Office will fund Fusus during the Talen Project trial period, which answers the question of how it will be funded. However, ***it does NOT answer the question of how much Fusus costs.*** The Ordinance requires that this information is provided.
3. **The 'Impact on Crime' section is inadequate and misleading.** The truth is that there is no empirical evidence to support Fusus's ability to reduce crime. Given that, I think ***a section titled 'Impact on Crime' should explicitly say that there is no empirical evidence to support Fusus's ability to reduce crime.***
4. **The 'Analysis of Discriminatory or Adverse Impact' section is non-compliant.** Adverse impact refers to the disproportionate negative effect of (in this case) a surveillance technology on a protected group, *even when* the disproportionate negative impact is unintentional. Adverse impact is NOT about whether the community will support Fusus or believe it'll be abused. You can have full community support for a policy, technology, or practice while also having an adverse impact. This section fails to comply with section 34.10.4)(e) of the Ordinance, which requires that a description of possible adverse impacts of the use of Fusus are included, as well as safeguards that will be implemented to prevent these impacts and potential uses that will be expressly

prohibited. As written, the section communicates that the writer either does not understand adverse impact or does not want to address the topic of potential adverse impacts, how they will be assessed, and which safeguards will be created to ameliorate them. Either option is unacceptable and does not comply with the Ordinance. ***Please require that information is added that responds to section 34.10.4)(e) of the Ordinance.***

When it comes to the use policy, *I believe that it would be in the City Commission's best interest to require that the policy expressly prohibits uses that could result in adverse impacts*. Currently, the policy only prohibits personnel from accessing Fusus data for "anything other than for a law enforcement purpose". However, in the Impact Report, in the community presentations, and even in the first page of the policy, DPD states that Fusus is "incident-driven" (Impact Report) and for serious, dangerous crimes like armed robberies or active shooters (Use Policy).

It is well known to me and others familiar with DPD operations, that there are a lot of "law enforcement purposes" besides incident-driven responses to serious, dangerous crimes. Personally, I have witnessed DPD personnel defending the use of pretextual stops for "legitimate law enforcement purpose" in Citizens Appeals Board meetings. If Fusus is indeed "incident-driven" (as the Impact Report claims), then using Fusus to 'proactively' surveil community members who officers believe might be involved in crime activity (but are not potential suspects in an ongoing incident) should be explicitly against the use policy.

The Impact Report states that "any and all complaints of misuse will be investigated". However, my concern is that, as currently written, the policy *does* allow DPD officers to use Fusus to support existing police practices that are known to have adverse impacts on protected groups. I would strongly recommend that the City Commission specifies the approved uses of Fusus (e.g., active shooter, armed robbery, Amber alert, Silver alert, murder), which I am sure will include all of the examples that the DPD has shared with community members when arguing for Fusus. Then, ***I'd recommend that the use of surveillance technology like Fusus for so-called proactive policing is explicitly prohibited as a safeguard to ameliorate the adverse impacts of the technology.***

I have attached two sample policies from other cities' police departments to help illustrate how the DPD could include descriptions of potential impacts on privacy rights or other public rights while still supporting the use of new surveillance technology equipment.

Before I wrap up, I'd like to point out that this is not the first time I share this input with the DPD. I did attend the community meeting at Lohrey Recreation Center on December 19th, 2022. There, I asked the DPD to consider the same request I am sharing here with you regarding restricting the allowed uses of Fusus beyond the generic "law enforcement purposes". Lt Col Henderson and at least 3 other DPD staff were at the meeting to collect input from the community. So was Commission Director Ms. Torey Hollingsworth. While my input about the use policy did NOT make the Impact Report, I wanted to make sure you received the input and knew that I had shared it with the DPD through the formal channels that were provided for community input.

At the time, Lt Col Henderson reassured me that DPD officers do not have time to engage in more 'proactive' uses of Fusus, but he also disagreed that proactive uses of Fusus should be explicitly against policy. I find that problematic. At the meeting, he did hint at the fact that they were planning to use the generic "law enforcement purposes" in the use policy (as the ALPR use policy did before). I expressed my concerns and explicitly requested that they consider explicitly prohibiting in the policy those uses that he claimed were not going to happen. He declined. The draft use policy was finalized after that meeting. Obviously, it did not incorporate the suggestion. The Impact Report also did not pass on this input to the Commission or the public as part of the input received at the community meetings, so I just wanted to ensure that you receive it.

In a private email shortly after the community meetings, I also asked Chief Afzal to please wait to schedule the public hearing until after the Impact Report and Draft Use Policy have been published and the City Commission and community members have time to review them. My hope was that we could prevent a situation like what happened with the ALPR public-hearing process, when the public hearing was completed

with inaccurate, non-compliant documents. Unfortunately, that didn't happen. The public hearing was scheduled on the same day that the Impact Report and Draft Use Policy were released.

It is my hope that you will take this public comment into consideration as you deliberate on the use of Fusus by the Dayton Police Department. I ask that, before you approve the use of Fusus in our community, you please consider requiring:
a. a revised, compliant Impact Report from DPD that addresses the issues mentioned above,
b. Fusus is only used for the types of actions that the DPD has discussed with the public (i.e., incident-driven, serious, dangerous crimes) and other "law enforcement purposes" (e.g., so-called proactive policing) are explicitly prohibited in the use policy.

Thank you in advance for your consideration. I look forward to hearing more about the actions you take to address the concerns noted above.

Respectfully,
Julio C. Mateo
215 Ice Ave Unit 400

Surveillance Impact Report
BART Automated License Plate Recognition (ALPR)

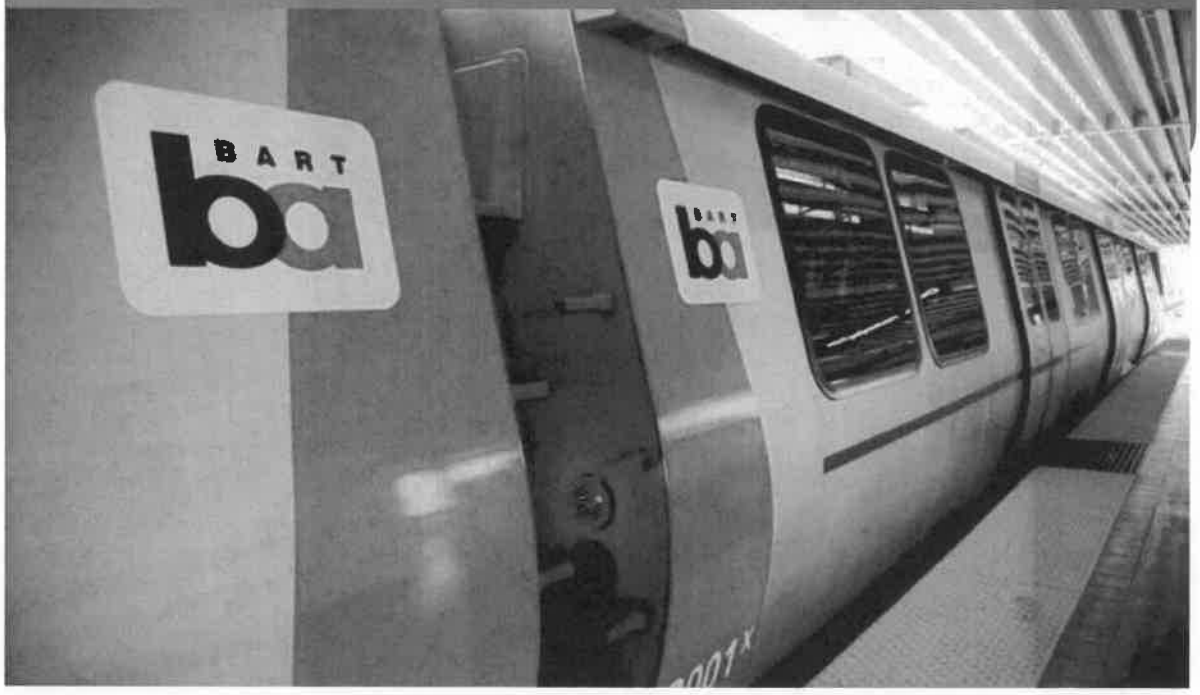
BART Police and Customer Access Departments

BPD-ALPR-SUP-02

21 Day BART Board Notice – October 3rd, 2019

15 Day Public Notice – October 9th, 2019

Board Meeting – October 24th, 2019



A. Information describing the proposed surveillance technology and how it generally works.

Automated License Plate Recognition (ALPR) systems are camera technologies that can capture vehicle license plate images and a portion of the vehicle. This technology will be used for the safety and security of patrons and employees and protection of their vehicles while using BART owned and operated parking facilities.

ALPR systems may include Fixed visible, mounted technologies. Mobile scan options include mobile units which can be mounted to a police car. Future use may include hand held options and mobile units may be considered parking program enforcement by roving parking enforcement officers.

ALPR technology increases law enforcement's ability to recover lost/stolen property and provide evidentiary support for criminal prosecution. In 2012 the RAND Corporation conducted a study on ALPR Technologies across the United States and found that ALPR was responsible for increasing Stolen Vehicle recovery by 50%. (RAND, Safety and Justice Program; *ALPR for Law Enforcement Opportunities and Obstacles*).

Currently, the ability for BART police to solve crimes such as auto burglaries and thefts is greatly reduced due to a lack of video evidence. ALPR technologies records images of a vehicle's license plate. The image, when compared against a hot list provides information that the vehicle may have been used in a crime. This information often leads to a timelier ability to capture offenders. Accurate information provided to BART Police will increase the ability to successfully prosecute offenders and greatly increase the chances of returning stolen property to the victim.

B. Information on the proposed purpose(s) for the surveillance technology.

Implementation of the proposed BART ALPR technology system would serve the following key purposes:

- Aid in the recovery of lost or stolen vehicles.
- Prevent, deter and detect crime, damage to patron and employee vehicles.
- Reduce crime and in doing so, reassure the public and employees using BART owned and operated Parking Facilities.
- Assist in the monitoring, identification, apprehension and prosecution for criminal offenses.
- Aid in the Investigation of complaints or offenses and provide evidentiary support upon which to take criminal and civil penalty actions.
- Parking efficiency and enforcement

C. Recommendation for Fixed Reader Installations location(s), to be deployed, based on current statistics for Auto Theft and Auto Burglary.

- A10 – Lake Merritt 5/2 Low Priority Installation
- A20 – Fruitvale 26/16 Priority Installation
- A30 – Coliseum 21/23 Priority Installation
- A40 - San Leandro 21/17 Priority Installation
- A50 - Bay Fair 24/9 Priority Installation
- A60 – Hayward 21/21 Priority Installation
- A70 – South Hayward 17/16 Priority Installation
- A80 – Union City 10/3 Low Priority Installation
- A90 – Fremont 9/5 Low Priority Installation
- L10 - Castro Valley 1/9 Low Priority Installation
- L20 - West Dublin 5/3 Low Priority Installation
- L30 - Dublin / Pleasanton 18/8 Priority Installation
- K10 – 12th Street 0/0 N/A
- K20 – 19th Street 8/4 Low Priority Installation
- K30 – MacArthur 3/2 Low Priority Installation
- R10 – Ashby 4/5 Low Priority Installation
- R20 – Berkeley 0/0 N/A
- R30 – North Berkeley 4/11 Priority Installation
- R40 – El Cerrito Plaza 4/5 Low Priority Installation
- R50 – El Cerrito Del Norte 15/14 Priority Installation
- R60 – Richmond 9/22 Priority Installation
- C10 – Rockridge 6/4 Low Priority Installation
- C20 – Orinda 5/7 Low Priority Installation
- C30 – Lafayette 4/2 Low Priority Installation
- C40 – Walnut Creek 1/4 Low Priority Installation
- C50 – Pleasant Hill 5/4 Low Priority Installation
- C60 – Concord 16/10 Priority Installation
- C70 – North Concord 18/14 Priority Installation
- C80 – Pittsburg Pay Point 27/13 Priority Installation
- M10 – West Oakland 20/9 Priority Installation
- M16 – Embarcadero 0/0 N/A
- M 30 – Powell 0/0 N/A
- M 20 – Montgomery 0/0 N/A
- M 40 – Civic Center 0/0 N/A
- M 50 – 16th Street 0/0 N/A
- M60 – 24th Street 0/0 N/A
- M70 – Glen Park 0/0 N/A
- M80 – Balboa Park 0/0 N/A
- M 90 – Daly City 13/13 Priority Installation

- W10 – Colma 1/3 Low Priority Installation
- W20 – South SF 1/0 Low Priority Installation
- W30 – San Bruno 0/1 Low Priority Installation
- W40 – Millbrae 2/1 Low Priority Installation
- Y10 – SFO 0/0 N/A
- S10 – Irvington (Future) 0/0 TBD
- S 20 – Warm Springs 1/7 Low Priority Installation
- S 40 – Milpitas 0/0 TBD
- S 50 – Berryessa 0/0 TBD
- E 20 – Pittsburg Center 0/0 Low Priority Installation by Operating Contractor
- E 30 – Antioch 0/12 Priority Installation by Operating Contractor
- Hercules Park-and-Ride
- Isabel (Livermore) Park-and-Ride
- Laughlin (Livermore) (Park-and-Ride)
- Irvington (Fremont) (future station)
- All future BART station parking facilities, either owned, operated and/or managed by BART and intended for BART passengers.

A. Crime statistics used to determine location installation, to deter or detect crime.

Statistics on Auto Burglary Auto Theft and Catalytic Converter Theft were used to provide recommended priority installations. The proposed implementation of the ALPR System is part of an overall Districtwide security system with functions for crime deterrence and detection, as well as future considerations for a more efficient parking program enforcement through automation. The proposed ALPR system would target hot spots crime areas as identified by the Crime Analysis Unit. Additionally, statistics were used to outline the problem expressed by BART Riders. Numbers for Auto Burglary, Auto Theft and Catalytic Converter Theft were analyzed for 2018 through March of 2019. The cost benefit analysis below was used in part to determine the viability of this technology.

Current Annual Crime Statistics	2018	2019 (March)	15 Month Average
Auto Burglary:	198	264	231
Auto Theft:	102	43	145
Catalytic Converter Theft:	205	51	128

Cost Benefit Analysis		Cost to BART Riders
Auto Burglary: (Average Deductible and Property)	$1,000 x 231 cases annually =	$231,000
Auto Theft: (No comprehensive Insurance)	$15,000 x 145 cases annually =	$2,175,000
Catalytic Converter Theft: (Average cost w/labor)	$1,500 X 128 cases annually =	$192,000
	Total Loss for 15 Months	**$2,598,000**

Approximate cost of a fixed ALP Reader is between $15,000 to $22,000 per installed unit, for 16 Priority Installations total cost $352,000 for one ALPR at all recommended parking areas.

B. An assessment identifying any potential impact on privacy rights and discussing any plans to safeguard the rights of the public.

Data collection by the ALPR System includes information found on the vehicle license plate. BART recognizes that all people have an inalienable right to privacy and BART is committed to protecting and safeguarding this right.

In 2013, data experts introduced to the public the concept of "meta data", which detailed that larger data can be gathered from individual data points. A recent example included, that by using a simple homemade app that captured simple data points such as phone number called, and time of day, Stanford lawyer and computer scientist Jonathan Mayer was able to accurately identify 80% of the volunteers in his study, using only open source databases such as Yelp, Facebook, and Google. Among the many individuals he identified, he successfully identified a woman that had an abortion, another woman that had cancer, and a man collecting guns and growing marijuana in his home.

Today, data scientists can accurately identify over 95% of individuals based solely on 4 geospatial (time, location) "meta data" points. Human are creatures of habit, typically driving the same way to work, our house of worship, and our neighborhood grocery store. Current attempts to "de-identify" or anonymize data are insufficient, due to modern day computing power and the sheer collection of data points available from public and private sources. License plate scans are collected by both public and private parties, and often shared via large commingled databases accessible by a simple subscription service.

In recognition of these concerns, BART has taken the following steps to mitigate the potential risk inherent in collecting this data from its customers.

As discussed in this Report and the Surveillance Use Policy, only authorized BART personnel, authorized NCRIC personnel or outside law enforcement pursuant to a court order or subpoena, will have access to this data for the purposes identified in this report and in the Surveillance Use Policy. BART and NCRIC shall maintain robust security procedures and practices, including multi layered engineering and administrative protections with the following details: CARD access locked doors with restricted and approved access only for designated personnel. Restricted Administrative rights to data access to provide operational, administrative, technical, and physical safeguards, to protect ALPR information from unauthorized access, destruction, use, modification, or disclosure. BART and NCRIC shall not provide data to federal immigration agencies. Data shall not be stored beyond 30 days, unless lawfully required by subpoena, court order or during an ongoing investigation.

C. The fiscal costs for the surveillance technology, including initial purchase, personnel and other ongoing costs, and any current or potential sources of funding.

Initial Purchase Cost

Based on an estimated budget, the cost is approximately $15,000 to $22,000 per installed ALPR unit. Costs for ALPR mobile units for enforcement vehicles would be approximately $20,000 per vehicle.

Personnel Costs

BART personnel could provide installation for the ALPR System, which is estimated to be approximately $100,000 at normal BART labor rates. However, depending upon the complexity of the installation and the availability of BART labor, the ALPR vendor may also provide ALPR installation at significant cost savings to BART when negotiated into the ALPR purchase contract.

Ongoing Costs

The ongoing costs associated with the deployment of a systemwide ALPR System will be primarily preventative and corrective maintenance costs. There may also be an annual leasing software for the ALPR units used for parking enforcement, depending upon contract details, which is estimated initially to be about $200,000 annually.

The anticipated lifespan of the ALPR system is about ten (10) years. However, with proper maintenance staff, anticipates the useful operational lifespan of the system could be extended.

Potential Sources of Funding

- FTA Security Grant
- Operating Funds
- FEMA Grants
- Bonds
- Parking Fee Revenue

D. Whether use or maintenance of the technology will require data gathered by the technology to be handled or stored by a third-party vendor on an ongoing basis.

Yes, third party in the way of vendor support may require the use of log files and sample image data to be collected for analysis of errors and system malfunctions. The data is not stored after any maintenance or trouble shooting is complete.

The Northern California Regional Intelligence Center (NCRIC) will be the handling center for the captured data that will be accessed by BART Police for law enforcement investigative purposes.

Data used for parking enforcement purposes may be shared with authorized BART Service Providers hosting parking efficiency and enforcement applications.

E. A summary of alternative methods (whether involving the use of a new technology or not) considered before deciding to use the proposed surveillance technology, including the costs and benefits associated with each alternative and an explanation of the reasons why each alternative is inadequate or undesirable.

BART examined the current capabilities for preventing and deterring auto burglary and auto. The current law enforcement system uses manpower to physically verify a crime in progress and conduct investigations. The current system is both labor intensive and not highly effective for preventing or deterring auto crimes. As parking lots continue to expand beyond the 47,000 parking spaces, enforcement actions are not able to keep pace with the criminal activity in these new locations. Currently the enforcement actions are limited to observing a crime in progress and catching criminal activity in the parking areas. Statistics from Federal and State Criminal Apprehensions indicate that more than 70% of crimes are committed by people using vehicles. There is currently no method for vehicles entering BART parking areas to be identified. Without this technology, identification of vehicles and associated criminals' activity is limited to observing crime in progress or limited investigative recovery. There is no alternative technology that can meet the needs of the District. The benefits and disadvantages of ALPR are:

Benefits of ALPR

- Improves public safety and security.
- Gives BART Riders using BART Parking Facilities a redress for crimes against their persons and property.
- Provides documentary evidence for prosecution.
- Enhances public confidence when Parking at BART.
- Offers low maintenance operating costs.
- Requires minimal training of personnel on the use of the technology.

Disadvantages of ALPR

- Requires initial installation investment, although recoverable within a few years' time.
- Must be protected from vandalism.
- Privacy risk to customers that use BART Parking Facilities from the collection of their locational data.

F. A summary of the experience, if any is known, other law enforcement entities have had with the proposed technology, including information about the effectiveness, any known adverse information about the technology such as unanticipated costs, failures, civil rights or civil liberties issues.

Many other Agencies, including a robust number of Law Enforcement Agencies use ALPR Systems throughout California and the Nation. ALPR System Efficiencies are 98% with a correct Read Rate of 95% resulting in high validity of documentation of incidents. Highly effective read rates protect individuals and civil liberties by ensuring proper, correct capturing of information.

BART would require Annual Certification of the System conducted by third party calibration service parties will ensure the system is maintained at factory read rates.

- California Highway Patrol and multiple County and City LE Agencies use ALPR Technologies for law enforcement function.
- SFMTA Uses ALPR Technologies.
- California State Universities including UC Berkley, Hayward and Merced use ALPR Technologies.
- CALTRANS uses ALPR Technologies for all Bridges, and Tolls via FasTrak which has been widely well received by the Public, with specific positive comments for FasTrak Fare collection and ease of use.
- San Francisco International Airport uses ALPR Technologies using FasTrak to pay for parking at airport lots.

Adverse information on ALPR Technology includes:

- ALPR can be fooled using false plates. Although if reported, this would show as a stolen plate in the ALPR System.
- ALPR System Data must be maintained, failure to do so could reflect old records in the system. It is imperative the agency (BART Police Department) implement a secondary verification procedure for all non-exigent or crimes in progress.
- Some individuals and privacy groups do not like the use of ALPR by law enforcement, because they feel it is an infringement of their privacy. ALPR Technologies record all license plates; including those that have not committed offences or infractions in addition to those that have.
- ALPR has a 95 percent correct read rate which means it also has a 5 percent incorrect read rate. This can be best managed by ensuring a robust policy on acceptable ALPR reads and secondary verification for non-crimes in progress.
- Inaccurate data in the system or inaccurate scans can lead to civil rights abuses. In 2015, the taxpayers of San Francisco paid $495,000 to Denise Green, a 45-year-old Muni driver after police officers pulled her over at gunpoint based on an erroneous alert from their system – the scan was off by one digit, and officers failed to verify its accuracy.

It is important to note that when used properly and judicially along with proper oversight and with written policies in place, ALPR can greatly enhance the safety and security of all personnel using BART owned and operated parking facilities. The State of California has the largest concentration of Agencies using ALPR, followed by New York and Florida. Enclosed below is a direct link to other California Agencies ALPR Use Policies.

- Central Marin Police Authority
- City and County of San Francisco
- City of Alameda
- City of Alhambra
- City of American Canyon
- City of Anaheim
- City of Antioch
- City of Arcadia
- City of Arcata
- City of Atherton
- City of Auburn
- City of Avenal
- City of Azusa
- City of Bakersfield
- City of Beaumont
- City of Bell
- City of Bell Gardens
- City of Berkeley
- City of Belvedere
- City of Beverly Hills
- City of Brawley
- City of Brea
- City of Brentwood
- City of Brisbane
- City of Buena Park
- City of Burbank
- City of Burlingame
- City of Campbell
- City of Carlsbad
- City of Chico
- City of Chino
- City of Chula Vista
- City of Claremont
- City of Clayton
- City of Clovis
- City of Concord
- City of Corning
- City of Corona
- City of Coronado
- City of Covina
- City of Culver City
- City of Cypress

- City of Daly City
- City of Davis
- City of Dublin
- City of El Cajon
- City of El Centro
- City of Elk Grove
- City of Emeryville
- City of Escondido
- City of Fairfield
- City of Folsom
- City of Fontana
- City of Fountain Valley
- City of Fremont
- City of Fresno
- City of Fullerton
- City of Galt
- City of Gardena
- City of Glendale
- City of Glendora
- City of Hanford
- City of Hawthorne
- City of Hayward
- City of Huntington Beach
- City of Imperial
- City of Inglewood
- City of Irvine
- City of Irwindale
- City of La Habra
- City of La Mesa
- City of La Palma
- City of La Verne
- City of Laguna Beach
- City of Lemoore
- City of Livermore
- City of Lodi
- City of Long Beach
- City of Los Alamitos
- City of Los Altos
- City of Los Gatos
- City of Madera
- City of Manhattan Beach
- City of Manteca
- City of Menlo Park

- City of Milpitas
- City of Modesto
- City of Monrovia
- City of Monte Sereno
- City of Morgan Hill
- City of Montclair
- City of Montebello
- City of Monterey Park
- City of Moraga
- City of Mountain View
- City of Murrieta
- City of National City
- City of Newark
- City of Newport Beach
- City of Novato
- City of Oakland
- City of Oceanside
- City of Oxnard
- City of Pacifica
- City of Palo Alto
- City of Palos Verdes Estates
- City of Pasadena
- City of Petaluma
- City of Piedmont
- City of Pismo Beach
- City of Pittsburgh
- City of Placentia
- City of Placerville
- City of Pleasant Hill
- City of Red Bluff
- City of Redlands
- City of Redwood City
- City of Richmond
- City of Ripon
- City of Riverside
- City of Sacramento
- City of San Bernardino
- City of San Bruno
- City of San Diego
- City of San Fernando
- City of San Gabriel
- City of San Jose
- City of San Leandro

- City of San Luis Obispo
- City of San Marino
- City of San Mateo
- City of San Pablo
- City of San Rafael
- City of San Ramon
- City of Santa Clara
- City of Santa Monica
- City of Sausalito
- City of Seal Beach
- City of Sierra Madre
- City of Signal Hill
- City of Simi Valley
- City of South Beach
- City of South Gate
- City of South San Francisco
- City of Suisun City
- City of Sunnyvale
- City of Torrance
- City of Tulare
- City of Tustin
- City of Ukiah
- City of Upland
- City of Vallejo
- City of Vernon
- City of Visalia
- City of Walnut
- City of Walnut Creek
- City of West Covina
- City of West Sacramento
- City of Westminster
- City of Westmoreland
- City of Whittier
- City of Woodland
- County of Alameda
- County of Contra Costa
- County of Fresno
- County of Los Angeles
- County of Marin
- County of Orange
- County of Riverside
- County of Sacramento (Sheriff)
- County of Sacramento (Department of Human Assistance)

- **County of San Bernadino**
- **County of San Diego**
- **County of San Luis Obispo**
- **County of San Mateo**
- **County of Santa Clara**
- **County of Shasta**
- **County of Solano**
- **County of Ventura**
- **County of Yolo**
- **California State University, Long Beach**
- **Kensington Police Protection and Community Services District**
- **Port of San Diego**
- **Town of Hillsborough**
- **Town of Los Gatos**
- **Town of Portola Valley**
- **Town of Tiburon**
- **University of California - Merced**

In conclusion, ALPR Technologies can offer greater safety and security for BART patrons and employees using BART Parking Facilities. Patrons will have an improved safety and security when parking at BART.

City of Cambridge
Executive Department

LOUIS A. DePASQUALE
City Manager

LISA C. PETERSON
Deputy City Manager

December 9, 2019

The Honorable, the City Council
City Hall, 795 Massachusetts Avenue
Cambridge, Massachusetts 02139

Re: Surveillance Technology Impact Reports

To the Honorable, the City Council:

Pursuant to Chapter 2.128, Section 2.128.030 of the Cambridge Municipal Code, I hereby submit to the City Council for approval the following Surveillance Technology Impact Reports.

No.	Department	Technology
1.	Assessing	Lexis/Nexis
2.	Emergency Communications	Rapid SOS
3.	Emergency Communications (Police)	Trespass Tracking
4.	Executive/City Manager	Media Monitoring—Meltwater
5.	Executive/City Manager	Social Media Monitoring–Meltwater Engage (powered by Sprout Social)
6.	Finance	Atlas Database (RMV)
7.	Information Technology	Checkpoint Firewall
8.	Information Technology	Web Server Access and Error Logging
9.	Law	WestLaw (Public Records Search function)
10.	Mayor's Office	Tweetdeck
11.	Police	Accurint Workstation
12.	Police	BRIC Omega Dashboard
13.	Police	Coplink
14.	Police	QED
15.	Police	Incident Database
16.	Police	CLEAR
17.	Police	Focused Deterrence Database
18.	Police	LENS
19.	Police	GPS tracking devices

20.	Police	Digital Intelligence Workstation
21.	Police	Dell Laptop BCERT
22.	Police	Magnet Forensics–Axiom
23.	Police	Getdata Forensic Explorer
24.	Police	Shotspotter
25.	Police	Keltech Covert Streetlight Camera
26.	Police	CSA Pole Camera
27.	Police	DTC Body Wire
28.	Police	IVC
29.	Police	Morpho (AFIS) with camera (MSP)
30.	Police	Live Scan (booking).
31.	Police	Live Scan (booking)
32.	Police	Live Scan (records)
33.	Police	Robotex Avatar II 2 Camera Wireless
34.	Police	Robotex Avatar II 2 Camera wireless
35.	Police	Robotex Avatar II 2 Camera Wireless
36.	Police	Foster Miller Tallon Robot 4 Camera Wireless
37.	Police	Foster Miller Dragon Runner 4 Camera Wireless
38.	Police	Remotetec F6A Robot 4 Camera Wireless and Fiberoptic
39.	Police	Tactical Electronics VF52 Fiber Scope
40.	Police	ATF Bomb Arson Tracking
41.	Police	Transport Wagon 240 Recording
42.	Police	Transport Wagon 236 Recording
43.	Police	Throwbot XT
44.	Police	Case Cracker
45.	Police	Infraware
46.	Police	Lexis Nexis
47.	Police	TweetDeck
48.	Public Health	MAVEN (Massachusetts Virtual Epidemiologic Network)
49.	Schools	Bus Video Recorders
50.	Traffic, Parking & Transportation	ATLAS: Massachusetts RMV Website Portal
51.	Traffic, Parking & Transportation	Traffic Signal Detection Cameras

52.	Traffic, Parking & Transportation	MioVision Traffic Count Mobile Camera Units
53.	Water	Automated Meter Reading System (AMR)
54.	Water	Consumer Engagement (AMR)

I look forward to answering any questions you may have concerning the enclosed Surveillance Technology Impact Reports.

Sincerely,

Louis A. DePasquale
City Manager

Enclosures

1. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Assessing**
Division or Unit (if applicable):	
Submitted by:	Gayle Willett
Date:	12/9/19
Surveillance Technology:	Lexis/Nexis

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Assessing is in the process of acquiring LexisNexis to review information submitted by taxpayers seeking residential exemptions and personal exemptions. This data will allow the Assessing department to vet information received from taxpayers in order to prevent fraud.

2. **What is the purpose of the Surveillance Technology?**

   - Preventing waste, fraud, and abuse of City resources

3. **Where will the Surveillance Technology be deployed? When?**

   - Assessing Department in December 2019

4. **What privacy impact will the Surveillance Technology have?**

   - Assessing is limiting the access to LexisNexis to two staff members. These are staff who are currently part of the review process of the exemptions and access to this program should make their jobs easier. Additionally, the use of the software by the Assessing department is reviewed by LexisNexis to ensure that it is used only for department business. LexisNexis can audit the Assessing department to ensure that the data is being used only for business purposes.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Assessing department budget will cover the costs for two licenses at $120.00 each, equaling $240.00 per year.

2. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Emergency Communications Department**
Division or Unit (if applicable):	Emergency Communications Center
Submitted by:	Christina Giacobbe
Date:	12/9/19
Surveillance Technology:	Rapid SOS

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - RapidSOS is the preferred provider of location information that is used through the State 911 Department in deploying the Next Generation 911 system. This system delivers 911 calls to the appropriate jurisdiction and RapidSOS functions as a clearinghouse to present the call to the PSAP for emergency response. The data that is collected is the location and phone number. There is no subscriber information presented. All 911 calls are required to be recorded as well as caller information. Callers who contact 911 do so voluntarily seeking emergency services.

2. **What is the purpose of the Surveillance Technology?**

   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings
   - Analyzing and managing service delivery
   - Communicating among City employees, with citizens, or with third parties
   - In particular, the purpose of this technology is to provide Call Takers/Dispatchers with location information of wireless callers who contact 911 in our jurisdiction. The platform sits on the Next Generation 911 platform to provide location information and phone number.

3. **Where will the Surveillance Technology be deployed? When?**

   - The technology is deployed by the Commonwealth of Massachusetts by the State 911 Deaprtment to all Public Safety Answering Points (PSAP) in the Commonwealth as required by by law to review and assess the technological and operational capability and financial feasibility of wireless 911 calls being routed to and handled directly by the PSAP in which the caller is located, and if such capability exists, the State 911 department establishes these standards, by which our PSAP receive wireless calls.

The State 911 Department reviews and assesses new communications technologies that may include, but are not limited to, wireless, video, broadband, and IP–based applications that may serve as the next generation 911 technology platforms, consistent with FCC decisions and federal law.

4. **What privacy impact will the Surveillance Technology have?**

   - There will be no privacy impact with this technology as RapidSOS is a platform the Commonwealth oversees on the Next Generation 911 platform to deliver location information for wireless calls to PSAP jurisdictions. This is necessary to provide aid to the caller, to dispatch emergency personnel, and to provide emergency services. When a caller contacts 911, they are voluntarily seeking emergency services and/or assistance from our jurisdiction. The caller's information that is provided is location and phone number only through RapidSOS. The Next Generation 911 System administered by the State provides subscriber information, address and phone number.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There are no associated costs with RapidSOS as the platform clearinghouse is deployed by the Commonwealth of Massachusetts, State 911 Department as they are authorized to administers the State 911 system.

3. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Emergency Communications Department**
Division or Unit (if applicable):	Police
Submitted by:	Christina Giacobbe
Date:	12/9/19
Surveillance Technology:	Trespass Tracking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Trespass Tracking tracks no trespass notices/letters issued to individuals. The information is recorded in our QED (CAD) database. The information recorded is name, location of the trespass, and other identification information if known such as address, who served the order, license number and date of issue and expiration.

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Providing information to emergency personnel
   - Enforcing obligations to the City
   - In particular, the purpose of recording this information is to ensure the safety of those impacted as well as for officer safety. In addition, the Trespass Tracking technology allows us to maintain an electronic record of all active No Trespass notices in the City in one database in CAD.

3. **Where will the Surveillance Technology be deployed? When?**

   - The informaiton is in the QED(CAD) database that is deployed in the Emergency Communications Center, Police, and Fire Departments. However, there are restictions and access to this datbase that is managed by ECC. There is no public access to this database and only autrhrized employees can review.

4. **What privacy impact will the Surveillance Technology have?**

- The individuals who are recorded in the Trespass Tracking are notified verbally and in writing of the notice to not trespass at the said location. The information obtained in the Trespass Tracking is safeguarded as all information under Criminal Justice Information Services (CJIS).

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

- There are no costs for the Trespass Tracking as it is a database that lives in the QED (CAD) that is part of the provider platform for CAD.

4. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Executive/City Manager**
Division or Unit (if applicable):	Public Information Office & Communications/Community Relations staff in: Arts Council, Community Development, Library, Police Department and Public Works
Submitted by:	Lee Gianetti
Date:	12/9/19
Surveillance Technology:	Media Monitoring - Meltwater

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Meltwater is a software as a service (SaaS) company that monitors media channels and social media platforms to identify relevant content based on keyword search terms. Meltwater monitors digital and print media coverage, broadcast and radio coverage, and social media sites including Twitter, Facebook, YouTube, and blogs. The platform collects information through its content partnerships and aggregates results into different search channels for authorized City users. Additionally, the platform provides access to its media influencers (media contacts) database, and is used to distribute city media releases to the public and media.
   - Meltwater is used to monitor coverage of the City of Cambridge and key topic areas of interest (i.e. sustainability, construction, transportation, and Visionzero) to compile weekly reports to share with internal staff.

2. **What is the purpose of the Surveillance Technology?**

   - Communicating among City employees, with citizens, or with third parties

3. **Where will the Surveillance Technology be deployed? When?**

   - Meltwater is a web based platform used by authorized city employees.

4. **What privacy impact will the Surveillance Technology have?**

   - Meltwater media searches collects publicly available content, both open access and paywall access. Meltwater social media searches pull from the respective channels "firehoses" and only provides content that is allowed by the individual user or sites

privacy settings. The platform provides various metrics on each search result and tracks open rates for media release emails.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Funds come from the Public Information Office's OOM budget.
   - Annual subscription cost is $23,100.

5. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Executive/City Manager**
Division or Unit (if applicable):	Public Information Office & Communications/Community Relations staff in: Arts Council, Community Development, Library, Police Department and Public Works
Submitted by:	Lee Gianetti
Date:	12/9/19
Surveillance Technology:	Social Media Monitoring - Meltwater Engage (Powered by Sprout Social)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

    - Meltwater Engage, which is powered by Sprout Social, is a software as a service (SaaS) that allows the City to schedule posts, respond to messages, deploy bots (on Twitter Direct Messages and Facebook messenger and private messages), store assets, access customizable analytics reports, and use social listening across networks and profiles (Twitter, Facebook, Instagram, Pinterest, and LinkedIn). Additionally, Meltwater Engage allows for direct connection to external help solutions (to open service request tickets) and provides a social CRM for staff within the platform.

2. **What is the purpose of the Surveillance Technology?**

    - Documenting and improving performance of City employees
    - Analyzing and managing service delivery
    - Communicating among City employees, with citizens, or with third parties
    - Surveying and gathering feedback from constituents

3. **Where will the Surveillance Technology be deployed? When?**

    - Meltwater Engage is a web based platform that used by authorized city employees.

4. **What privacy impact will the Surveillance Technology have?**

    - Meltwater Engage can monitor conversations based on keywords, search operators, hashtags, geographic area, and user profile name, in addition to the monitoring direct interactions with city-maintained accounts. Its searches collect publicly available content and direct private messages sent to City accounts in the platform. Only content that is allowed by the individual user privacy settings are visible in the

platform. The platform provides various metrics for measuring content and campaign performance.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Funds come from the Public Information Office's OOM budget.
   - Annual subscription cost is $33,500.

6. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Finance Department**
Division or Unit (if applicable):	Revenue Division
Submitted by:	Michele Kincaid
Date:	12/9/19
Surveillance Technology:	Atlas Database (RMV)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The Atlas Database is used in a very limited capacity to release the Non-Renewal hold at the RMV for a taxpayer who has paid a delinquent Motor Vehicle Excise tax bill via credit card or cash. The City provides this service to accommodate those taxpayers who need a release relatively quickly. For instance, a taxpayer may not even realize they are on RMV hold until they go to the registry to renew their license or registration. The taxpayer will pay the outstanding bill on-line via credit card and then call the Finance Office for a release.

2. **What is the purpose of the Surveillance Technology?**

   - Enforcing obligations to the City
   - Executing financial transactions between the City and any individual engaged in a financial transaction with the City

3. **Where will the Surveillance Technology be deployed? When?**

   - Only 3 Finance staff have the Atlas Database system on their computers.

4. **What privacy impact will the Surveillance Technology have?**

   - The data provided is the Driver's name, address, Class D license #, Birth date, weight, height, gender, and eye color.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**
   - The City is assessed RMV fee on the Cherry Sheet Assessments. There are no personnel costs associated. (See annual surveillance report.)

7. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Information Technology**
Division or Unit (if applicable):	
Submitted by:	Mike Dugas
Date:	12/9/19
Surveillance Technology:	Checkpoint Firewall

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The firewall collects IP addresses from all internal and external connections and connected attempts. This information is used to limit and protect the City network from malicious sites and unauthorized access.

2. **What is the purpose of the Surveillance Technology?**

   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Deployed in 2013 in City building(s).

4. **What privacy impact will the Surveillance Technology have?**

   - The firewall collects IP addresses from all internal and external connections.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $300,000 Initial cost with implementation
   - $20,000 ongoing training
   - $50,000 annual maintenance
   - Source of funds:
     - Initial cost 300k – eGov
     - Annual and training – OOM
     - Personnel costs - .5 FTE

8. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Information Technology**
Division or Unit (if applicable):	
Submitted by:	Eric Belford
Date:	12/9/2019
Surveillance Technology:	Web server access and error logging

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - We utilize built-in functionality in IIS (Microsoft's web server software) to record information about every request that the server receives and responds to. The data is written to log files on disk for future reference and analysis.

2. **What is the purpose of the Surveillance Technology?**

   - Analyzing and managing service delivery

3. **Where will the Surveillance Technology be deployed? When?**

   - All City web servers

4. **What privacy impact will the Surveillance Technology have?**

   - The log entries record the current date & time, IP address, referring URL (if provided by the browser), and user agent string (again, if provided by the user's browser) at the time of the request.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - This functionality is built-in to the web server software and incurs no additional costs.

9. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Law**
Division or Unit (if applicable):	
Submitted by:	Nancy Glowa
Date:	12/9/19
Surveillance Technology:	WestLaw Public Records Search function

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - WestLaw's public records search function is used to gather publicly available information concerning litigants such as other lawsuits filed, judgments, convictions, warrants, bankruptcies, property records, and other publicly available filings or documents.

2. **What is the purpose of the Surveillance Technology?**

   - Gathering evidence of violations of any law in criminal, civil, and administrative actions.
   - Preventing waste, fraud, and abuse of City resources.

3. **Where will the Surveillance Technology be deployed? When?**

   - On an as-needed basis in litigation.

4. **What privacy impact will the Surveillance Technology have?**

   - None. The technology searches for public records based on documents filed in courts, registry of deeds, and other publicly available sources.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - The WestLaw subscription total cost is bundled and not broken down by feature, therefore the cost for this specific feature is unknown.

10. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Mayor's Office**
Division or Unit (if applicable):	
Submitted by:	Wilford Durbin, Chief of Staff
Date:	12/9/19
Surveillance Technology:	Social media monitoring software (Section 2.128.020(G)(1)(l), Twitter monitoring via Tweetdeck

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Tweetdeck allows users to organize and search Tweets in various ways -

     From Twitter Help Center:

     "Collections
     With collections, you can organize Tweets according to topics, events, interests, conversations, and more, all in real-time. Add your collections as columns and Tweet the URL to share it with others.

     Search Typeahead
     When you begin to type characters into the search box, TweetDeck will run a real-time search that attempts to autocomplete your search term, surfacing potentially relevant search topics and accounts. Different search topics will be shown on the top half of the drop-down menu, whereas user accounts will be shown on the bottom half.
     If you select one of the suggested search terms, you will be given the option to browse users related to that search topic or Tweets related to that search term.

     Sentiment
     It's easy to uncover sentiment surrounding a topic; simply search for a topic followed by a happy or sad emoticon. For example, you can create a search column with the keyword "San Francisco :)" to see Tweets regarding San Francisco in a positive manner.

     Column filters

TweetDeck's column filters are a powerful way to customize searches by keyword, date and time, and to stay on top of new Tweets as columns quickly update.
Click the filter icon at the top of any column to access the options menu:

Content: Tweets matching keywords, media type, dates and time, language, or including or excluding Retweets
Location: Tweets geotagged in a specified locations
Users: Tweets from a specific account, members of a List, or verified accounts
Engagement: Tweets with a minimum number of Retweets, likes, or replies
Alerts: Tweet alerts through sound or desktop notifications

List management
TweetDeck allows you to manage your Lists easily in one centralized place for all your accounts. You can create Lists in TweetDeck filtered by by your interests or by particular accounts. Any List that you have set up or subscribed to previously can also be added as separate columns in TweetDeck.

Tweets from a specific account
You can designate a column to display a specific account's Tweets. Just add a Tweet column and search for the account you would like featured in the search box."

2. **What is the purpose of the Surveillance Technology?**

- Surveying and gathering feedback from constituents. More frequently, people are using Twitter to communicate their constituent concerns or issues with City services much in the same way that they would send an email.

3. **Where will the Surveillance Technology be deployed? When?**

- Through City-issued computers and laptops, the technology is available continuously.

4. **What privacy impact will the Surveillance Technology have?**

- Tweets complied by Tweetdeck would potentially collect all Tweets responding to designated search criteria that are Public (see definition below) and Protected Tweets if the official Mayoral account follows that person. In each case, Mayor's Office staff would only be able to see information that a person has chosen to release publicly on their Twitter account, in accordance with Twitter's Terms and Conditions. Obviously, the search also only applies to people who use Twitter, and only those who include

identifiable information on their account (some accounts, for example, are anonymous, use a nom de plume or, perhaps more appropriately, nom de guerre).

Impacts to privacy would likely not be felt by any individual, as a simple search of one's Twitter profile shows all Tweets, likes, retweets, and other activity from a user over the course of that profile's existence, and Tweetdeck would not provide any additional information than could be found during such a search. It is Tweetdeck's ability to monitor public conversations in real time across multiple Twitter accounts that could trigger a privacy concern, as one could use the information to build a network of individuals who used keywords or hashtags associated with certain ideologies: #MeToo, #MAGA, #NobodyWins, #NeverTrump, #BlackLivesMatter, etc. As Twitter's search functions become more advanced, it is becoming possible to search people's sentiments in a Tweet, collecting all posts that mention Cambridge in a positive or negative sentiment, for example.

- **From Twitter:**

  "What is the difference between public and protected Tweets?

  - When you sign up for Twitter, your Tweets are public by default; anyone can view and interact with your Tweets. Should you choose to protect your Tweets, you can do so through your account settings.

- If you protect your Tweets, you'll receive a request when new people want to follow you, which you can approve or deny. Accounts that began following you before you protected your Tweets will still be able to view and interact with your protected Tweets unless you block them. **Who can see my Tweets?**

  - **Public Tweets** (the default setting): Are visible to anyone, whether or not they have a Twitter account.

  - **Protected Tweets**: Only visible to your Twitter followers. Please keep in mind, your followers may still capture images of your Tweets and share them."

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There are no costs associated with Tweetdeck, and the Mayor's Office does not pay for, nor does it intend to pay for more advanced search options. Personnel costs are minimal as Tweetdeck is only passively monitored.

11. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Accurint Workstation

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Crime Analysis Software for analysis, mapping, etc

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the software analyzes incident data from the Department's records management system. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $30,000

12. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis (and CID)
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	BRIC Omega Dashboard

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Intel portal for Boston Regional Intel CTR

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it analyzes and maps incident data from the surrounding communities.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

13. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis (and CID)
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Coplink

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Nespin portal for exchange of criminal justice incident reports.

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division.

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it combines and provides access to incident data from the surrounding communities.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available.

14. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Police Department
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	QED

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Record Management System

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - CPD

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact. QED serves as the central report writing and incident documentation system for the Department. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not Available. Multi-agency product.

15. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Incident Database

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Access database of corrected RMS Data

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact. This database is a condensed accounting of QED incidents for purposes of crime incident statistical reporting. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

16. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	CLEAR

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Public Records search engine

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigation Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since it is composed of public records.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

17. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis and Focussed Deterrence Unit
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Focused Deterrence Database

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Algorithm to analyze RMS data

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Focussed Deterrence Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it analyzes existing incident reports from the Department's Records Management System. The Department is required by state and federal law, as well as court procedural rules to document a variety of police encounters, whether for criminal, civil or administrative matters.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

18. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Analysis
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	LENS

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Federal Probation Database (active Cambridge federal probationers)

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the Department only has access to those individuals who are Cambridge residents that are on federal probation.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

19. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	GPS Tracking Devices (2)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Location tracking through satellite triangulation

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Various (e.g., Bicycle Package Theft Sting Operations)

4. **What privacy impact will the Surveillance Technology have?**

   - This technology should have no privacy impact since it is utilized to track property (bikes/packages) stolen from the Cambridge Police Department.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

20. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Digital Intelligence Workstation

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Desktop computer hardware

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

21. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Dell Laptop BCERT

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Hardware for computer evidence recovery

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

22. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Magnet Forensics - Axiom

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Forensics software for computers & mobile devices

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

23. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Getdata Forensic Explorer

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Software for analysis of digital evidence

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Criminal Investigations Cyber Unit

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized on property (phones, computers, etc.) where there is no reasonable expectation of privacy, after consent is provided or a search warrant is obtained.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

24. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID Days; DV/SA; Cyber
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Shotspotter

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Gun shot detection system

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Deployed across the City with 12 sensors and 1.25 square mile coverage area

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it captures the sound of gunshots.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - None

25. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Keltech Covert Streetlight Camera

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Covert camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available.

26. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	CSA Pole Camera

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Pole camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

27. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	DTC body wire

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Audio surveillance

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is used for officer safety purposes during controlled drug buys, prostitution stings and human trafficking operations.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

28. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SIU
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	I.V.C.

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Exterior point, tilt and zoom camera

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has minimal impact as it is typically used in public spaces that do not implicate constitutional protections. This technology is only used in constitutionally protected spaces with consent, a search warrant or exigent circumstances.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

29. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Morpho (AFIS) with camera (MSP)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Fingerprint database with MSP

2. **What is the purpose of the Surveillance Technology?**

   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Scene Services

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact. It allows the Department's Crime Scene Serves Section to compare unknown latent fingerprints to a state database of known fingerprints.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $4,571 in maintenance costs

30. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (1) booking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Booking

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

31. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (2) booking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Booking

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

32. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Crime Scene Services
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Live scan (1) records

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Digital fingerprint system with live feed to MSP and FBI for criminal history

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Records

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to document and identify persons in lawful police custody or those persons who voluntarily wish to be fingerprinted.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $29,000 plus $9,660 in maintenance costs

33. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 6

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

34. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 7

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

35. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Robotex Avartar II 2 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Small platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 8

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was approximately $40,000.00. Ongoing cost is maintenance when needed

36. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Foster miller Tallon robot 4 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Medium platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 4

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $105,000.00. On going cost is maintenance when needed.

37. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Foster Miller Dragon runner 4 camera wireless

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Medium platform robot gripper and camera assist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Tango 1

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $102,000.00. On going maintenance cost when needed

38. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Remotetec F6A robot 4 camera wireless and fiberoptic

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Large platform robot gripper and camera asist

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Response vehicle

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $150,000.00. On going maintenance cost as needed

39. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Tactical electronics VF52 Fiber scope

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Optical scope technology used to view enclosed or secure areas for explosive mitigation

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Explosive unit Response vehicle

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is utilized minimally during exigent circumstances when an explosive device is believed to be present.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Original cost was $56,000.00 plus ongoing maintenance

40. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	EOD
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	ATF Bomb arson tracking

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - ATF reporting online system

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - ATF

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it only used to track arson and bomb incidents.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - none

41. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Fleet
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Transport Wagon 240 recording

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Prisoner Transport Security Cameras

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Transport vehicles

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to view persons lawfully in police custody who are being transported by the Department and is implemented strictly for their safety and the safety of the transporting officers.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $2,500

42. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Fleet
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Transport Wagon 236 recording

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Prisoner Transport Security Cameras

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Transport vehicles

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as it is used to view persons lawfully in police custody who are being transported by the Department and is implemented strictly for their safety and the safety of the transporting officers.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $2,280.00

43. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	SRT
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	1 Throwbot XT

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Robotic camera for remote viewing; no recording

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property
   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions
   - Maintaining the safety and security of City employees, students, customers, and City-owned or controlled buildings

3. **Where will the Surveillance Technology be deployed? When?**

   - Across the City

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the technology is used in minimal situations where an exigency exists and the Special Response Team needs to assess whether a threat exists before making lawful entry or taking further action.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - $14,000 purchase vost plus most recent maintenance of $1,750.

44. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Case Cracker

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Video Recording - Interview Rooms

2. **What is the purpose of the Surveillance Technology?**

   - Identifying, apprehending, and prosecuting criminal offenders
   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Police Station

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the recordings are all done voluntarily, and there is a legal requirement to record criminal interrogations where practicable.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Approximately $40,000.

45. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	Professional Standards Unit
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Infraware

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Dictation Software

2. **What is the purpose of the Surveillance Technology?**

   - Gathering evidence of violations of any law in criminal, civil, and administrative actions

3. **Where will the Surveillance Technology be deployed? When?**

   - Police station

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since the technology records voluntary interviews.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Not available

46. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	CID
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	Lexis Nexis

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Public Safety Search Engine

2. **What is the purpose of the Surveillance Technology?**

   - Identifying and preventing threats to persons and property and preventing injury to persons or significant damage to property

3. **Where will the Surveillance Technology be deployed? When?**

   - Crime Analysis and Criminal Investigations Division

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact since it is composed of public records.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Part of Accurint cost.

47. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Police**
Division or Unit (if applicable):	PIO
Submitted by:	Jim Mulcahy
Date:	12/9/19
Surveillance Technology:	TweetDeck

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - TweetDeck is a social media dashboard application for management of Twitter accounts. Originally an independent app, TweetDeck was subsequently acquired by Twitter Inc. and integrated into Twitter's interface.

2. **What is the purpose of the Surveillance Technology?**

   - Providing information to emergency personnel
   - Analyzing and managing service delivery
   - Documenting and improving performance of City employees
   - Surverying and gathering feedback from constituents

3. **Where will the Surveillance Technology be deployed? When?**

   - Cambridge Police PIO

4. **What privacy impact will the Surveillance Technology have?**

   - This technology has a minimal impact as the software merely aggregates publically available Twitter posts and mentions about the Department.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - Free

48. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Public Health Department**
Division or Unit (if applicable):	Public Health Nursing Epidemiology and Data Services
Submitted by:	Anna Wielgosz Manager, Epidemiology and Data Services Cambridge Public Health Department
Date:	12/9/19
Surveillance Technology:	MAVEN (Massachusetts Virtual Epidemiologic Network)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - M.G.L. c.111, §§ 1, 3, 5, 6, 7, 94C, 109, 110, 110B, 111 and 112 define the responsibilities of the local boards of health and the Department of Public Health with respect to the reporting and control of diseases dangerous to the public health. M.G.L. c.111D, § 6, references the obligation of clinical laboratories to report infectious diseases to the Department.

     By state law, when a MA resident is diagnosed or has a suspected diagnosis of a reportable condition, their medical providers are required to report information about the patient (when available, full demographic, clinical and epidemiologic information, as defined by the Massachusetts Department of Public Health) to the health department. At this point in time, most of these reports are automatically sent by laboratories and providers electronically to the state health department through MAVEN; they can also report information via fax or phone to either the state health department or their local health department, where staff then enter this information into MAVEN by hand. Reporting is mandated by the state for certain conditions.

2. **What is the purpose of the Surveillance Technology?**

   - "MAVEN" is the Massachusetts Virtual Epidemiologic Network - a PHIN (Public Health Information Network) compliant, secure web-based surveillance and case management system for infectious diseases that enables rapid, efficient communication among local and state health departments and laboratories. MAVEN is an easy way to conduct case investigations and management while also decreasing paperwork. The system was purchased and developed in 2005 by MDPH and local

health partners. The data in MAVEN goes back until approximately 1989 for the general epidemiology and vaccine preventable disease events. For tuberculosis, the data goes back to approximately 1993.

Infectious disease surveillance is the routine collection, analysis, interpretation, and distribution of data in order to reduce morbidity and mortality through the control and/or prevention of disease.

- Surveillance data is used to:
  - Monitor disease trends over time
  - Rapidly detect increases in disease occurrence
  - Implement control measures
  - Identify high-risk groups
  - Allocate resources & guide public health policy and action

- There are approximately 90 notifiable infectious diseases that have a required response.

3. Where will the Surveillance Technology be deployed? When?

- The Cambridge Public Health Department has been using MAVEN since its inception in 2005. Access is limited by a user's roles and groups, so, by default, CPHD users can see only Cambridge residents' information. Within CPHD, only those staff who are required to use MAVEN to conduct infectious disease surveillance work have access to the system.

4. What privacy impact will the Surveillance Technology have?

The information collected in MAVEN is considered protected health information (PHI) under HIPAA. HIPAA specifically allows public health reporting and access to PHI for public health activities without requiring an individual's authorization.

5. What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?

- MAVEN is managed and maintained by the Office of Integrated Surveillance and Informatics Services at the Massachusetts Department of Public Health, which funds MAVEN. CPHD staff use MAVEN to do state-mandated infectious disease investigations, but are not involved in the initial or ongoing maintenance of the system.

49. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	School Department
Division or Unit (if applicable):	Safety & Security, Transportation (buses)
Submitted by:	Diane Fisk Johnson, Financial Manager Transportation
Date:	12/9/19
Surveillance Technology:	Bus video recorders on individual buses

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The cameras on the school buses allow us to review any incidents that take place, after the event is over. The cameras allow us to determine the source of any behavioral outbursts on the bus, many of which take place out of the line of sight of the bus driver.
   - Images are recorded to a box, and the images are retrieved manually by the Transportation Director when investigating an incident.

2. **What is the purpose of the Surveillance Technology?**

   - Supporting the safety of all students and staff on bus transportation by addressing disruptive behavior appropriately.

3. **Where will the Surveillance Technology be deployed? When?**

   - All school buses have carried these on board cameras since their original installation in FY13.

4. **What privacy impact will the Surveillance Technology have?**
   - The data from these cameras is not maintained, but is over-recorded at monthly intervals. Without physically retrieving the imagining data from the bus, it is not accessible to anyone.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - The **initial cost** of the SEON camera system was $47,190 when it was installed in the spring of 2013.

- There have been **ongoing maintenance** expenditures for moving equipment to newer buses, and adding cameras as needed.
    - FY14 $4,955
    - FY16 $12,500
- It is not possible to determine the **personnel costs** of using this equipment. The Transportation Director must board a bus after an incident and download the images in order to proceed with an investigation, but it is difficult to quantify the time involved.
- Both equipment and personnel were **funded** from the School Department General Fund.

50. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Parking Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	ATLAS: Massachusetts RMV Website Portal

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The ATLAS: Massachusetts RMV Website Portal is a web application provided by the Commonwealth of Massachusetts to access the RMV system. It used by Parking Services staff. Internal access only with user restrictions by name and password. Information accessed includes name, address, license plate number, registration status, vehicle details, vehicle addresses and garage code. Used to issue resident parking permits; view handicap placard information and clear holds on licenses and vehicle registrations. No data is collected or stored, and the public cannot access it.

2. **What is the purpose of the Surveillance Technology?**

   - The purpose of the ATLAS: Massachusetts RMV Website Portal is to assist Parking Services staff in issuing resident parking permits; viewing handicap placard information and clearing holds on licenses and vehicle registrations. The information accessed includes Information accessed includes name, address, license plate number, registration status, vehicle details, vehicle addresses and garage code.

3. **Where will the Surveillance Technology be deployed? When?**

   - The ATLAS: Massachusetts RMV Website Portal is a web application provided by the Commonwealth of Massachusetts to access the RMV system. It used by Parking Services staff daily. Internal access only with user restrictions by name and password. No data is collected or stored, and the public cannot access it.

4. **What privacy impact will the Surveillance Technology have?**

   - The use of ATLAS: Massachusetts RMV Website Portal has little to no impact on privacy: The information accessed is not collected or stored and the public can not access it. The information is only accessed by the Parking Services staff when issuing resident parking permits; viewing handicap placard information and clearing holds on licenses and vehicle registrations all of which are requested by the customer.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - There is a $20.00 RMV surcharge for license plate clears. In FY 2019, there were 17,973 chargeable clears for license and registration holds.

51. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Street Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	Traffic Signal Detection Cameras

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

- The traffic detection units each consist of a video camera device which is mounted approximately 10 feet above one of the traffic signal mast arms at an intersection. There are two types of cameras:
    - MioVision SmartLink 360 cameras
    - Iteris directional detection cameras

The MioVision units are mounted in a location that allows visibility towards all approaches to the intersection and provide detection of users in all directions from a single device. The Iteris units are mounted for each approach where intersection detection is required and provide for detection of users from one roadway approach.

The camera communicates a video feed via the hardwire signal conduit to the signal control cabinet at the intersection, where a video processing unit is installed. The video processing unit analyzes the video feed on-site in order to count and classify roadway users approaching the intersection by their transportation mode type and direction of travel.

The MioVision Cameras and supporting software and hardware originally included the ability to collect video by plugging a laptop into the processing unit located in the traffic control cabinet at the intersection or to stream video upon demand to the cloud for access through an online portal. Use of captured video is needed from time to time to ensure proper functionality of the system to recognize and count vehicles, cyclists and pedestrians.

At our request, MioVision has changed the default settings so that the City cannot collect video at the control cabinet or stream video to the cloud. Only the Vendor will be able to collect video in the field or stream data to the cloud. The vendor has agreed

in writing that they will do so only under specific circumstances and will notify the City in advance of streaming or collecting any data. They have also agreed to delete all captured video within 30 days. The circumstances agreed upon include: capture video for training purposes, capture video for intersection detection accuracy validation, capture video specifically to validate a solution to a problem at the intersection, and capture video to analyze and detect/root-cause a problem at the intersection.

The Iteris cameras do not have the ability to stream or record video as configured.

2. **What is the purpose of the Surveillance Technology?**

- The purpose of this technology is to analyze and manage service delivery, in this case operation of traffic signals and counting vehicles, bicycles, and pedestrians. The technology provides detection of roadway users, to classify their mode of transportation, and to quantify their movements at signalized intersections in the City of Cambridge. The aggregated data collected will be analyzed and used to improve the efficiency and safety of operations for all roadway users. The technology will also provide City staff with continuous roadway user counts to allow for evaluation of seasonal and annual traffic volume variations to assist in future design and planning projects.

- The processed data collected will be used for two purposes:
    - Traffic detection – this process provides a notification to the traffic signal controller requesting to call or extend a signal phase to allow for dynamic signal phasing that adapts to changes in the number of roadway users present.
    - Traffic counts – providing continuous counts of roadway users traveling through the intersection. Counts are broken out by movement (i.e., direction of approach and turn or straight movement through the intersection) and by transportation mode type (i.e., truck, bus, vehicle, bicycle, pedestrian)

3. **Where will the Surveillance Technology be deployed? When?**

- MioVison Intersection Cameras were deployed in the field in the Fall of 2019 at multiple signalized intersections across the City.
- MioVision Cameras will be installed at additional locations as funding becomes available.
- Iteris cameras have been installed at isolated locations over the past three years.

4. **What privacy impact will the Surveillance Technology have?**

   - We expect that the impact on privacy will be minimal, for the following reasons:
     - The cameras do not have sufficient resolution to provide personally identifiable details in the video such as faces or license plates.
     - While video streaming and collection is used in an extremely limited and controlled manner as indicated above, the core functionality of the technology operates through real-time processing of lower resolution video data, resulting in non-identifiable discrete data on number of users and deletion of video in real time on-site.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - The initial 8 units were purchased for just under $21,000 each and funded by the Casino Mitigation Fund. 4 additional units were installed as part of a new private development and turned over to the City for no cost. Ongoing operations and maintenance costs for the units will be covered by the Department's signal operations budget.

52. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Traffic, Parking, and Transportation**
Division or Unit (if applicable):	Street Management
Submitted by:	Joe Barr, Brooke McKenna, Stephanie McAuliffe
Date:	12/9/19
Surveillance Technology:	MioVision Traffic Count Mobile Camera Units

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - MioVision Scout is a portable, battery operated, traffic video collection unit. It is a standalone unit that is deployed in the field for unattended traffic video collection, Video is collected over a series of days and stored in the Scout unit on a digital storage card. At the end of the data collection period, the unit is removed and data is taken from the storage card and processed for traffic data. Additionally, Scout units have the capability of detecting and recording MAC addresses from devices searching for wireless networks within their range. MAC addresses and timestamps are then transmitted to a central system. The central system then looks to see if the same MAC address has been recorded previously by other units and uses any matches to establish travel times. During deployment, the units also communicate wirelessly for monitoring purposes, but do not stream data.

     The City of Cambridge does not own or plan to purchase Scout Units. However, the units are used regularly by traffic engineering and transportation planning consultants in order to collect traffic data in Cambridge to complete Traffic Impact Studies and other transportation related studies.

2. **What is the purpose of the Surveillance Technology?**

   - The purpose of this technology is to analyze and manage service delivery, in this case collecting traffic video and data that is later processed to provide a variety of traffic related data such as turning movement counts, intersection counts and classifications, road volume counts, and travel times.

3. **Where will the Surveillance Technology be deployed? When?**

   - These units are deployed in the field, at various locations on a temporary basis. The units are typically attached to a signal, utility, or streetlight pole within the right of way. They boxes are locked and inaccessible during deployment.
   - Deployment is based on the need for transportation data for use in a transportation study, traffic impact study, or other transportation related data analysis.

4. **What privacy impact will the Surveillance Technology have?**

   - MioVision Scout units records Video at 720 x 480 resolution. This standard resolution video offers limited personal information and does not include license plate reading ability, limiting privacy impacts. In addition, all video recordings will be done within the public right of way.

     In the past, consultants have deployed Scout units in Cambridge without approval from the City. Moving forward, the Traffic, Parking, and Transportation Department will implement a permitting system that will require pre-approval for all deployments. The permit will require that all deployments meet certain data security and data retention requirements.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

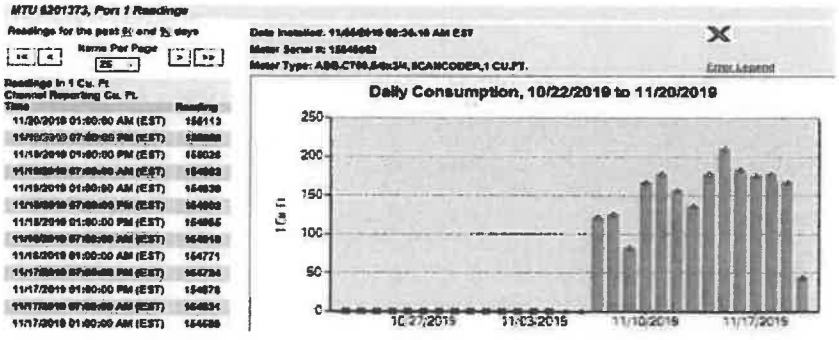
   - All costs associated with the use of MioVision Scout Units are paid by private consultants.

53. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department: **Water**
Division or Unit (if applicable):
Submitted by: Fred Centanni
Date: 12/9/19
Surveillance Technology: Automated Meter Reading System (AMR)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - The Water Department's AMR system is a radio-based system which transmits on a Federal Communication Commission (FCC) licensed/reserved frequency. Meter Transmitter Units (MTUs) are attached to every water meter throughout the city. The MTU transmits water meter reads in a propriety format. These reads are transmitted every 4 hours on a floating schedule. For example, an MTU will transmit a read today at 6:00AM, and then transmit a read tomorrow at 6:03AM. The reads are received by the Data Collection Units (DCUs) located within the city. The DCUs transmit the meter readings, using a cell phone network, to a communications computer located at the Water Department. The communications computer then transfers the data to a database computer which translates the data in order for the city to view the water meter reads. This allows the Water Department to provide actual reads for billing and allows us to alert customers for potential leaks at their property. Below is an example of our STAR AMR software and the data collected:



2. **What is the purpose of the Surveillance Technology?**

   - The AMR System allows the Water department to provide actual reads for billing and allows us to alert customers of potential leaks in their property.

3. **Where will the Surveillance Technology be deployed? When?**

   - Meter Transmitter Units (MTUs) are attached to every water meter/building throughout the city and the deployment started in 2004. Several Data Collection Units (DCUs) located within the city were installed in 2004.

4. **What privacy impact will the Surveillance Technology have?**

   - None, there has been no impact.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - **Initial costs** – The original implementation cost on 2004 was approximately $4,000,000.
   - We are nearing completion of an upgrade of the AMR system to replace all the MTUs because the batteries reached their life expectancy. The MTU cost was $1,545,600 and the full value of the installation contract is $1,102,500.
   - We also have a contract to upgrade the DCUs and software for $48,380.
   - **Ongoing maintenance** – The Water Department has an annual maintenance agreement for approximately $15,000.
   - **Personnel costs** – personnel costs have gone down related to AMR.
   - **Source of funds** – Capital Water Funds for upgrade, Operating Water Funs for the annual maintenance agreement

54. SURVEILLANCE TECHNOLOGY IMPACT REPORT

Department:	**Water**
Division or Unit (if applicable):	
Submitted by:	Fred Centanni
Date:	12/9/19
Surveillance Technology:	Consumer Engagement, (AMR)

1. **Describe how the proposed Surveillance Technology will work, including how it will collect Surveillance Data.**

   - Using water meter data from the Department's AMR system, water customers will be able to view their own daily water usage on-line to promote conservation and detect water leaks. The data will be stored on a remote server, hosted by our vendor. The individual data will be accessible through the City's web page and access will be protected by individual account log-in security which will be approved by our IT Department.

2. **What is the purpose of the Surveillance Technology?**

   - Water customers will be able to view their daily water usage on-line to promote conservation and detect increased usage and/or water leaks.

3. **Where will the Surveillance Technology be deployed? When?**

   - Through the City's web page.

   - The go live date is contingent on the city and vendor signing a contract. The implementation is projected to take 4 months from the kick off meeting.

4. **What privacy impact will the Surveillance Technology have?**

   - None.

5. **What are the fiscal costs of the Surveillance Technology, including initial costs, ongoing maintenance and personnel costs, and source of funds?**

   - **Initial costs** – The current low bidder cost information is:

		Per Unit Cost (if applicable)	Units	Total Annual Cost
Year 1	Implementation Costs		1	$10,000
	Annual License & Maintenance Fee		15,750 customers	$30,000*
	3-day training & materials			$3,000
	TOTAL COST FOR YEAR 1			**$43,000**
Year 2	Annual License & Maintenance Fee			$31,000*
	TOTAL COST FOR YEAR 2			**$31,000**
Year 3	Annual License & Maintenance Fee			$32,000*
	TOTAL COST FOR YEAR 3			**$32,000**
	TOTAL COST FOR YEAR 1, 2 and 3			**$106,000**

- **Ongoing maintenance** – see above
- **Personnel costs** – no additional personnel costs related to AMR.
- **Source of funds** – capital Water Funds