Metro

Los Angeles County Metropolitan Transportation Authority One Gateway Plaza 3rd Floor Board Room Los Angeles, CA

Board Report

File #: 2025-0288, File Type: Motion / Motion Response

Agenda Number: 19.

EXECUTIVE MANAGEMENT COMMITTEE OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE JUNE 18, 2025

SUBJECT: WEAPONS DETECTION PILOT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the quarterly update on the weapons detection pilot.

<u>ISSUE</u>

Following the completion of a weapons detection proof-of-concept pilot in 2024, in February 2025, the Board approved Motion 39 by Directors Hahn, Barger, Solis, Bass, Dutra and Butts (Attachment A) that directed the CEO to extend and expand the deployment of concealed weapons detection systems for 12 months, advance an onboard bus weapons detection pilot, and evaluate the infrastructure requirements needed to support brandished firearm detection with advanced video analytics. This update aligns with the Board directive to provide the first of a series of quarterly reports beginning in June 2025.

BACKGROUND

In response to continual efforts to increase public safety on the system, the Board approved Motion 34.1 by Directors Barger, Krekorian, Hahn, Najarian, Butts, and Solis (Attachment B) in April 2024 that directed the CEO to explore strategies to prevent weapons from entering the system and to identify applicable technologies already deployed by peer transit agencies. Subsequently, in July 2024, Metro launched several proof-of-concept pilots to evaluate multiple weapons detection technologies. Broadly, these initial proof-of-concept pilots focused on two types of weapons detection systems, concealed weapons screening and brandished firearm detection using video analytics software applied to existing closed-circuit television (CCTV) infrastructure.

These proof-of-concept pilots concluded at the end of 2024, and in February 2025, staff presented their findings to the Board. The initial pilots provided valuable insight into the performance, scalability, and operational requirements of these technologies. It also informed the development of a refined deployment approach that balances detection accuracy with rider throughput and staff resourcing.

Based on these findings and the lessons learned from peer agencies, the Board approved Motion 39,

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authorizing a 12-month continuation and expansion of the most promising concealed weapons detection technologies identified during the initial phase. This motion also directed staff to initiate a pilot aboard two buses and further explore system readiness to implement brandished firearm detection and ultimately return to the Board with findings and implementation recommendations.

DISCUSSION

As outlined in Motion 39, System Security and Law Enforcement (SSLE) staff prepared a comprehensive update on ongoing efforts to enhance transit system safety through the deployment and evaluation of advanced weapons detection technologies, and report progress across three major initiatives:

- 1. The expanded pilot of concealed weapons screening at select rail stations,
- 2. The development of a first-of-its-kind onboard weapons detection system for buses, and
- 3. Implementation planning for real-time brandished firearm detection using video analytics.

Throughout all efforts, staff have continued to engage stakeholder groups, including the Public Safety Advisory Committee (PSAC), Citizens Advisory Council (CAC), and Accessibility Advisory Committee (AAC), to promote transparency, community input, and alignment with agency-wide security and customer service objectives. SSLE staff remain committed to advancing these initiatives as part of Metro's ongoing mission to safeguard riders, employees, and the communities it serves across the transit system.

CONCEALED WEAPONS SCREENING

In preparation for the expanded concealed weapons detection system pilot, staff procured equipment, performed training, and analyzed various data points to select stations. Below is a brief timeline of these efforts:

- March
 - On March 12, 2025, Metro executed a contract for four CEIA OpenGate "pillar-type" units and supporting equipment for the 12-month expanded weapons detection pilot.
 - SSLE also convened departmental meetings throughout March to finalize key performance indicators (KPIs) and assign data collection responsibilities.
- April
 - On April 10, 2025, SSLE staff, in partnership with CEIA engineering, conducted handson training for Metro Transit Security (MTS).
 - The training sessions focused on equipment functionality, troubleshooting procedures, and proper setup and calibration protocols.
 - Training sessions were delivered to supervisory and management personnel across both morning and evening shifts, ensuring operational readiness for launch and consistent performance standards across deployment locations.
 - Throughout April, a pilot schedule was established, and 12 target station locations were identified, guided by data on weapons-related incidents, Transit Watch app reports,

entrance counts, and feasibility of setup. The selected stations are not identified for operational security purposes, in accordance with 49 CFR § 1520.5 (b)(8)(i).

- On the morning of April 28, new passenger screening deployments began at the Norwalk C Line Station.
 - Preliminary figures indicate MTS officers encounter an average of three bladed objects per shift, including pocket knives, box cutters, and multi-tools, all disclosed by patrons during secondary screenings initiated by OpenGate system alerts; most have not been deemed to pose a threat given the absence of intent or supporting factors to indicate the item is intended to be used as a weapon. Passengers have identified the items as tools that are kept out of reach. A minority share of instances involved knives with blades beyond the legal length of two inches; patrons were directed to return the object to their vehicle and invited to return to the Metro system.
 - No firearms have been detected during deployments to date.
 - On average, three individuals per shift have declined to proceed through screening or leave the station entirely after encountering the system or associated signage.
 - In one instance, a patron was observed to pay fare but refused screening, proceeding to exit without further incident or comment.
 - Secondary screening times at Norwalk averaged just 10 seconds.
 - Only one missed train incident was reported per shift, indicating minimal travel disruption.
 - Officers noted consistent patron compliance, informal comments in support, and screening operations allowed customer interaction without major operational friction.
- Passenger screening also commenced at the San Pedro A Line Station in the afternoon, with MTS officers staffing a similar deployment.
 - Findings have been similar to those observed at Norwalk, though more data is necessary to provide figures.
 - One key difference is the operational challenges associated with the station layout.
 - Officers have provided detailed operational observations, noting that the narrow station footprint and proximity to the street and tracks complicate screening logistics due to electrical interference from nearby passing vehicles and overhead catenary system (OCS). These firsthand insights are valuable in shaping pilot adjustments, particularly around equipment placement and environmental sensitivity.

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Concealed Weapons Screening at Norwalk Station (left & center); Metro Board Chair Hahn going through screening (right)

Evaluation and Key Metrics for Concealed Weapons Passenger Screening

To evaluate the effectiveness, operational feasibility, and public response to Metro's passenger screening for weapons detection pilot, staff developed a series of metrics aligned with both safety outcomes and customer experience goals. This success metric framework will guide quarterly reporting and inform decisions regarding future deployment, system enhancements, and long-term investments in security infrastructure. The key metrics, definitions, and purpose are summarized in the following table.

KPI	Definition	Purpose	Goal
Weapons Arrests (Possession)	Number of arrests for possession of a weapon (gun or knife) detected during pilot deployments.	Assess the potential deterrent effect of weapons screening by measuring trends in weapons-related arrests compared to baseline arrest activity at the same stations using a 60-day period before system deployment.	Decrease weapons arrests by 30%.
Assault with Weapon (Gun/Knife)	Number of assaults involving a weapon occurring at screening locations.	Monitor whether pilot presence correlates with reduced assaults with a deadly weapon.	Decrease assaults with a weapon by 30%.
False Negatives	Incidents where a test weapon passes through the system undetected (the system fails to alert).	Assess the reliability and detection accuracy of the screening system.	False negatives <10% occurrence.
Weapons Detected	Instances where the system alerts and a weapon is found during the secondary search.	Measure the accuracy and deterrence of weapons.	Average number of weapons detected per screening period during 60-day deployment.
Transit Watch Incident Reports (Gun/Knife)	Number of gun/knife-related incident reports submitted via the Transit Watch app during the pilot period at the stations.	Supplement formal incident data with rider- reported feedback at the stations with screening locations.	Decrease by 25%.
Online Sentiment (Social Media)	Monitoring of social media posts/comments mentioning weapons detection at Metro facilities.	Gauge informal public feedback and public perception trends.	Decrease negative sentiment of public safety by 10%, measured at 60-day intervals after pilot initiation, compared to the 60 days before the pilot began.

Another key metric staff will conduct during the pilot period is a cost-benefit evaluation to assess the financial feasibility and overall value of the deployed technologies. Staff will analyze capital costs, including equipment procurement, installation, and system integration, as well as ongoing operational expenses such as staffing, maintenance, and vendor support. These costs will be weighed against measurable benefits to determine cost-effectiveness in relation to safety outcomes and customer experience. A final cost-benefit analysis will be included in the concluding report to the Board, along with findings regarding system scalability and long-term deployment strategies.

WEAPONS DETECTION ONBOARD BUSES

Metro's exploration of bus-based weapons detection represents a first-of-its-kind initiative; the effort requires designing, engineering, product development, and installing a system that can accommodate different bus models.

On March 6, the vendor surveyed two buses from Metro's fleet, and a cost proposal was provided to Metro for a two-bus and one-station pilot, the scope covering one 40-foot bus, one 60-foot bus, and a fixed installation at Union Station West. Following a technical review of the scope, cost proposal, system architecture, and vehicle plans, staff have determined that the proposed solution is viable for a multi-stage, proof-of-concept deployment. As a result, Metro is proceeding with a sole-source procurement to initiate the pilot under a structured, phased approach that includes a fixed-location installation and two bus-based options.

The onboard weapons detection proof-of-concept pilot will begin with a baseline deployment at a fixed location incorporating dual detection units, cloud-connected AI-enhanced IP cameras, and integration with Metro's Genetec video management system. This baseline deployment is designed to validate core system functionality, alert generation, false positives, integration stability, and ease of operations in a controlled environment. The fixed-location implementation will allow staff to assess real-time performance data, operator feedback, throughput metrics, and response workflows before advancing to mobile configurations.

Critically, the outcomes of the fixed deployment will inform Metro's decision on whether to exercise Option 1 (installation on a 60-foot articulated bus) and Option 2 (installation on a 40-foot standard bus). These vehicle-based options remain contingent on multiple criteria: demonstrated system performance, cost-effectiveness, infrastructure compatibility, and operational need. This staged structure allows Metro to manage technical and financial risk while preserving flexibility for expansion if justified by pilot results.

VIDEO ANALYTICS BRANDISHED FIREARM DETECTION

Staff continue to make progress evaluating video and camera system upgrades required to support brandished firearm detection. Metro met with the highest-performing vendor from prior testing throughout March and requested detailed technical and site assessment documentation. SSLE has started to coordinate internal reviews and data population.

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In April, Metro staff met to review proposed camera specifications. The current state of CCTV and network systems at rail station locations is similar to other Metro locations, such as rail and bus divisions. The conditions described below, such as insufficient resolution, low frame rates, and constrained network bandwidth, are informed by prior project experience, routine system maintenance, and ongoing troubleshooting efforts. These observations, while grounded in operational knowledge, do not yet reflect the results of a formal, systemwide infrastructure evaluation.

To address this, a formal systemwide infrastructure review is scheduled to begin in July 2025. This effort will be led by the Information Technology Services (ITS), Infrastructure Maintenance & Engineering (IM&E), and Vehicle Maintenance & Engineering departments in coordination with SSLE. The review will encompass the following components:

- A location-by-location audit of existing CCTV equipment, including camera models, placement, resolution, field of view, frame rate, and age.
- An evaluation of back-end video management systems and storage capabilities, including server capacity and redundancy.
- A network bandwidth analysis to determine current transmission speeds.
- Identification of critical infrastructure gaps that may limit the integration of video analytics solutions.
- The development of an upgrade roadmap and phased implementation plan aligned with system priorities.

Findings from this review will inform a formal infrastructure readiness assessment, which will be included in an update to the Board later this year, at a date to be determined.

As a preliminary measure, staff have included the table below, which provides a comparison between Metro's current CCTV system capabilities and the technical requirements necessary for the successful implementation of real-time firearm detection analytics:

Category	Current Metro CCTV Capabilities	Requirements for Brandished Firearm Detection Analytics
Camera Resolution	Low to standard definition; optimized for constant live-viewing requirements	High-definition (HD) or greater to ensure visual clarity for detection
Frame Rate	Minimal frame rate; sufficient for monitoring	High, stable frame rate required for frame-to-frame analysis
Network Bandwidth	Limited; configured for low data throughput	High bandwidth is necessary to support streaming video across the network
Storage Capacity	Optimized for incident-based playback	Rapid-access capability for video- based AI processing and review
Camera Processing Load	Low processing demand; not designed for analytics workloads	Continuous data streaming to edge servers or cloud analytics systems
System Longevity	Standard operational lifespan expected	Risk of accelerated wear from higher operating loads
Use Case Fit	Suitable for live monitoring and post-incident review	Must support real-time object recognition and alert generation via Al tools

ITS, IM&E, Vehicle Maintenance & Engineering systems groups will conduct a comprehensive review of existing infrastructure, which will form the basis of the final assessment on the state of system readiness prepared by SSLE. Ultimately, the assessment and its findings will be presented to the Board within the extended 12-month pilot timeframe.

COMMUNITY ENGAGEMENT

SSLE staff have presented to different community advisory groups on the topic of passenger screenings and weapons detections. Updates on the findings from the initial pilots have most recently been presented to the Accessibility Advisory Committee (AAC) on March 13, 2025, Metro's Public Safety Advisory Committee (PSAC) on April 3, 2025, and the Technical Advisory Committee (TAC) on May 7, 2025. Staff plan to present a follow-up briefing to the TAC and incorporate feedback from these stakeholders into the findings of the pilot expansion. Metro is also working more closely with the AAC to ensure that system design and operations consider the needs of riders with disabilities. These ongoing engagements support community engagement and informed implementation throughout the 12-month pilot period.

Additionally, staff have been documenting public comments on the weapons detection pilot at Metro Board meetings. MTS personnel staffed at the selected stations have received informal feedback from passengers, both positive and critical, regarding the pilot. When a rider requests to make a complaint or share an opinion, MTS collects and records all public input. To date, riders have not submitted any complaints or comments. SSLE is also working with the Customer Experience department to develop a survey, which will be another avenue for the public to share their feedback. The link to the survey will be included on signage posted at the screening locations.

EQUITY PLATFORM

The weapons detection initiatives discussed have been reviewed and are in alignment with Metro's

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Bias-Free Policing and Data Analytics policies. These screening technologies do not employ facial recognition, and staff utilize pedestrian count intervals to select passengers for secondary screening, minimizing opportunities for profiling. All deployments are reviewed for any ADA accessibility concerns to ensure all riders are able to transit through Metro stations without any negative impacts. Furthermore, staff are working closely with Metro's AAC to identify additional opportunities to improve the screening process for those with accessibility needs. MTS personnel ensure the walk-through systems are set up with an unobstructed 34 inches of space, providing adequate room for wheelchairs and mobility scooters to pass through. As mentioned above, staff is developing a public feedback survey to better understand public sentiment. To ensure that public sentiment is adequately captured, riders will be asked in the survey to identify if their feedback is based on their overall opinion of the pilot or personal experience with the screening system. Utilizing specific metrics to assess the effectiveness of concealed weapons screening addresses concerns about bias, as staff are committed to being transparent about this process.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

As part of these ongoing efforts, this item is expected to contribute to further reductions in VMT. This item supports Metro's systemwide strategy to reduce VMT through operational activities that will improve and further encourage transit ridership, ridesharing, and active transportation. Metro's Board -adopted VMT reduction targets were designed to build on the success of existing investments, and this item aligns with those objectives.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Strategic Plan Goals #2.1: Deliver outstanding trip experiences for all users of the transportation system; Metro is committed to improving security and #5.6: Provide responsive, accountable, and trustworthy governance within the Metro organization; Metro will foster and maintain a strong safety culture.

NEXT STEPS

Metro staff will continue with the implementation of the CEIA OpenGate pilot, rotating deployments at select station entrances, which are not identified for operational security purposes, in accordance with 49 CFR § 1520.5 (b)(8)(i). Staff will monitor key performance indicators related to throughput, false positives, customer experience, and staffing requirements, and refine screening operations accordingly.

For the onboard bus detection pilot, SSLE will work to implement the proposed pilot.

In parallel, SSLE and Metro's technology groups will advance the agency-wide infrastructure assessment required to support brandished firearm detection and take advantage of the effort to assess readiness for integrating other video analytics solutions. This includes completing site evaluations, confirming equipment compatibility, and developing a phased upgrade plan for key facilities.

The next quarterly report will be submitted to the Board in September 2025 with updated findings, refined evaluations, and recommendations on long-term deployment strategies based on pilot outcomes.

ATTACHMENTS

Attachment A - Board Motion 39 Attachment B - Board Motion 34.1

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Board Report

Los Angeles County Metropolitan Transportation Authority One Gateway Plaza 3rd Floor Board Room Los Angeles, CA

File #: 2025-0164, File Type: Motion / Motion Response

Agenda Number: 39.

REGULAR BOARD MEETING FEBRUARY 27, 2025

Motion by:

DIRECTORS HAHN, BARGER, SOLIS, BASS, DUTRA AND BUTTS

CONTINUATION OF WEAPONS DETECTION PILOT

The Los Angeles County Metropolitan Authority utilizes a multi-layered safety approach to help create a safe and comfortable transit experience for Metro riders and employees. Some of these measures include enhanced lighting throughout the system and improved station designs. Some additional safety layers include the deployment of safety personnel such as but not limited to Metro ambassadors, Metro Street Teams, Homeless Outreach Management and Engagement (HOME) teams, law enforcement, and contracted security.

At its April 2024 full board meeting, the Metro Board unanimously approved Motion 34.1, "Improving Safety for Metro Riders & Employees," which included recommendations for ways to keep weapons off our system, including lessons learned from peer transit agencies.

Subsequently, at the July 2024 meeting, the Board approved a pilot to test several weapons detection technologies at two transit stations on the Metro Rail system. This pilot aimed to test available technology to enhance security and deter weapons from entering the Metro system. The Board has continued to stress the importance of preventing weapons from entering the system as a top priority to urgently strengthen safety for riders and employees. Over the past four months, multiple vendors provided equipment at no cost to Metro to evaluate the feasibility and effectiveness of these technologies.

The results of this evaluation have demonstrated the potential of these technologies to improve safety for our riders and provide a visible deterrent to individuals carrying prohibited items. Findings from these pilots indicate that Metro's Customer Code of Conduct, which prohibits weapons or instruments intended for use as weapons, can be further enforced using advanced detection technology.

The pilot evaluation also gave Metro valuable insights about the system's accuracy, passenger flow, operational feasibility, and scalability. While both the detection systems that were tested showed similar effectiveness in identifying concealed weapons, the pillar-type system demonstrated advantages in flexibility, portability, and reduced infrastructure requirements. However, the pilot also revealed a high rate of false positives, which required Metro to position additional security personnel

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for secondary screening to minimize delays for our riders. Staff also tested brandished firearm detection through video analytics and identified a system that could integrate with Metro's existing security infrastructure once it is upgraded to a digital system.

Metro staff continue to explore the feasibility of deploying weapons detection solutions on board buses and trains. While buses present unique challenges for weapons detection, Metro staff have shared in their report that millimeter wave screening technology capability could allow for on-board weapons detection systems on our buses.

In light of the ongoing challenges and evolving safety concerns raised by our riders and employees, Metro should continue to assess, improve, and further explore the various tools, such as weapons detection systems, that could be implemented and/or strategically deployed to enhance safety on our Metro system.

SUBJECT: CONTINUATION OF WEAPONS DETECTION PILOT MOTION

RECOMMENDATION

APPROVE Motion by Directors Hahn, Barger, Solis, Bass, Dutra and Butts to direct the Chief Executive Officer to:

- A. Extend and expand the deployment of the "pillar-type" weapons detection system pilot for 12 months to additional key high-traffic transit stations to gather additional data on effectiveness, false positives, staffing needs, and any impacts to passenger experience;
- B. Conduct a 12-month pilot of weapons detection technology aboard a minimum of (2) Metro buses;
- C. Provide a quarterly report on the requirements, feasibility, and timeline for upgrading Metro's video and camera system, to include the integration of brandished firearm detection analytics. This report should outline the infrastructure needs, estimated costs, and privacy considerations to ensure alignment with the agency's broader safety and security goals; and
- D. Report back to the Board in June 2025, and on an as-needed basis, with findings and recommendations from the continued pilots.

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Board Report

Los Angeles County Metropolitan Transportation Authority One Gateway Plaza 3rd Floor Board Room Los Angeles, CA

File #: 2024-0300, File Type: Motion / Motion Response

Agenda Number: 34.1

REGULAR BOARD MEETING APRIL 25, 2024

Motion by:

DIRECTORS BARGER, KREKORIAN, HAHN, NAJARIAN, BUTTS, AND SOLIS

Related to Item 34: Bus Operator Retrofit Barriers

SUBJECT: IMPROVING SAFETY FOR METRO RIDERS & EMPLOYEES MOTION

RECOMMENDATION

APPROVE Motion by Directors Barger, Krekorian, Hahn, Najarian, Butts, and Solis directing the Chief Executive Officer to report back to the board in 60 days on:

- A preliminary investigation into fare gate hardening at our heavy and light rail stations, including identification of resources required, opportunities, and challenges associated with such an effort;
- B. An update on implementation of latching faregates upon exit, including the proposed pilots of this technology at both North Hollywood and Union Stations;
- C. An update on the proposed pilot interventions at Lake Ave, Hollywood/Highland, Downtown Santa Monica, and Norwalk stations, as highlighted in January's file#: 2023-0539;
- D. Data collected on violent crimes committed over the past twelve months on the LA Metro system and any correlation found with an inability of the perpetrator to demonstrate a paid fare;
- E. Data on outcomes of arrests for crimes against persons on the LA Metro system over the past twelve months, and instances of reoffending on the system;
- F. Any current or recent legislative efforts to strengthen penalties for violent crimes against transit employees.

HAHN AMENDMENT: report back to include recommendations for ways we can keep weapons off our system, including lessons learned from peer transit agencies.

SOLIS AMENDMENT: report back to include how activating our stations, including adding kiosks and

prioritize care first station design improvements, could improve safety and provide jobs to at-risk individuals.

KREKORIAN AMENDMENT:

- A. Report back to include recommendations to create holistic and reciprocal communication among Metro, local law enforcement agencies (beyond our contracted partners), the District Attorney's Office, Probation Department, and local court systems to create effective protocol concerning Be on the Lookout "BOLO" notices and Stay Away Orders; and
- B. Recommendations for upgrades to the CCTV system on bus and rail facilities to support artificial intelligence and biometric technology to identify those individuals who are known repeat violent offenders, repeat disruptors to operations or individuals banned from the system by court order.

BUTTS AMENDMENT: report back to include staff's research on current applications of millimeter wave scanners combined with video cameras and artificial intelligence and facial recognition technology that can be installed on train platforms and trains/buses with a feed into command/dispatch centers.



Weapons Detection Systems Pilot Quarterly Update

Executive Management Committee Operations, Safety, and Customer Experience Committee June 18, 2025



Background







(Left to Right) Brandished Firearm Video Analytics and Concealed Weapons Detection System (Pillar-type)

Concealed Weapons Screening

12 target station locations were identified*, guided by data on weapons-related incidents, Transit Watch app reports, entrance counts, and feasibility of setup.

On April 28, passenger screenings began at the Norwalk (C Line) Station and San Pedro (A Line) Station.

Initial Findings

Norwalk Station

- MTS officers encounter an average of three bladed objects per shift
- No firearms have been detected
- On average, three individuals have declined screening per shift
- Secondary screening times averaged 10 seconds

San Pedro Station

- Similar findings to Norwalk
- Operational challenges associated with station layout
 - Narrow station footprint
 - Proximity to vehicle traffic and tracks complicate screening logistics due to electrical interference





Norwalk Station



*Selected stations are not identified for operational security purposes, in accordance with 49 CFR § 1520.5 (b)(8)(i).

Concealed Weapons Screening: Success Metrics



	Definition	Purpose	Goal
Weapons Arrests (Possession)	Number of arrests for possession of a weapon (gun/knife) detected during pilot deployments	Assess the potential deterrent effect of weapons screening by measuring trends in weapons-related arrests compared to baseline arrest activity at the same stations using a 60-day period before system deployment.	Decrease weapons arrests by 30%
Assault with Weapon (Gun/Knife)	Number of assaults involving a weapon occurring at screening locations	Monitor whether pilot presence correlates with reduced assaults with a deadly weapon.	Decrease assaults with a weapon by 30%
False Negatives	Incidents where a test weapon passes through the system undetected (the system fails to alert)	Assess the reliability and detection accuracy of the screening system.	False negatives <10% occurrence
Weapons Detected	Instances where the system alerts and a weapon is found during the secondary search	Measure the accuracy and deterrence of weapons.	Average number of weapons detected per screening period during 60-day deployment
Transit Watch Incident Reports (Gun/Knife)	Number of gun/knife-related incident reports submitted via the TW app during the pilot period at the stations	Supplement formal incident data with rider- reported feedback at the stations with screening locations.	Decrease by 25%
Online Sentiment (Social Media)	Monitoring of social media posts/comments mentioning weapons detection at Metro facilities	Gauge informal public feedback and public perception trends.	Decrease negative sentiment of public safety by 10%, measured at 60-day intervals after pilot initiation, compared to the 60 days before the pilot began
Cost/Benefit	Assess the financial feasibility and overall value of the deployed technologies	Fiscal sustainability.	Costs will be weighed against measurable benefits in relation to safety outcomes and customer experience.

Metro's exploration of bus-based weapons detection represents *a first-of-its-kind initiative*; the effort requires designing, engineering, development, and installing a system that can accommodate different bus models.

- On March 6, the vendor surveyed two buses from Metro's fleet, and a cost proposal was provided to Metro for one 40-foot bus, one 60-foot bus, and a fixed installation at Union Station West.
- Metro is proceeding with a sole-source procurement to initiate the pilot under a structured, phased approach that includes a fixed-location installation and two bus-based options.
- Will begin with a baseline deployment at a fixed location incorporating dual detection units, cloud-connected AI-enhanced IP cameras, and integration with Metro's Genetec video management system.
 - The fixed-location implementation will allow staff to assess real-time performance data, operator feedback, throughput metrics, nuisance alarms and response workflows before advancing to mobile configurations.
 - Outcomes of the fixed deployment will inform Metro's decision on whether to exercise contract Option 1 (installation on a 60-foot articulated bus) and Option 2 (installation on a 40-foot standard bus).



Video Analytics Brandished Firearm Detection

In March, Metro requested detailed technical and site assessment documentation from the highest performing vendor during 2024 testing.

- A formal systemwide infrastructure review is scheduled to begin in July 2025.
- Findings from this review will inform a formal infrastructure readiness assessment, which will be included in an update to the Board later this year, at a date to be determined.

Category	Current Metro CCTV Capabilities	Requirements for Brandished Firearm Detection Analytics
Camera Resolution	Low to standard definition; optimized for constant live-viewing requirements	High-definition (HD) or greater to ensure visual clarity for detection
Frame Rate	Minimal frame rate; sufficient for monitoring	High, stable frame rate required for frame-to-frame analysis
Network Bandwidth	Limited; configured for low data throughput	High bandwidth is necessary to support streaming video across the network
Storage Capacity	Optimized for incident-based playback	Rapid-access capability for video-based AI processing and review
Camera Processing Load	Low processing demand; not designed for analytics workloads	Continuous data streaming to edge servers or cloud analytics systems
System Longevity	Standard operational lifespan expected	Risk of accelerated wear from higher operating loads
Use Case Fit	Suitable for live monitoring and post-incident review	Must support real-time object recognition and alert generation via AI tools

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Community Engagement

- Updates on the findings from the initial pilots have most recently been presented to the Accessibility Advisory Committee (AAC) on March 13, 2025, Metro's Public Safety Advisory Committee (PSAC) on April 3, 2025, and the Technical Advisory Committee (TAC) on May 7, 2025.
 - Metro is also working more closely with the AAC to ensure that system design and operations consider the needs of riders with disabilities.
- Feedback from patrons during station screening has been largely positive, with people expressing gratitude for Metro creating a sense of a safer environment.
- SSLE is also working with the Customer Experience department to develop a survey, which will be another avenue for the public to share their feedback.





- Metro staff will continue with the implementation of the concealed weapons detection system pilot, rotating deployments at select station entrances.
- SSLE will work to implement the proposed onboard bus detection pilot.

