

Automated Bus Lane Enforcement Update

MTA and the Baltimore City Department of Transportation have partnered to plan, design, and install approximately 17 miles of dedicated bus lanes throughout the MTA service area. These lanes:

- minimize traffic delays for buses to increase speed and service reliability.
- Reduce merging and yielding conflicts between buses and other vehicles.
- Clear a path for emergency responders.

Enforcement levels significantly influence bus travel time savings. For example, between January and July 2023, MTA tested dedicated bus lanes on two corridors with frequent illegal parking. The segment along Charles Street from Conway to Saratoga recorded over 400 citations during the pilot period and achieved 2 minutes of time savings for buses, while the 36 citations issued along York Road from Radnor to Bellona segment were not sufficient to clear the bus lanes of unauthorized vehicles and transit travel times not only did not improve but were further degraded.



Vehicles that stand or park in dedicated bus lanes delay transit riders, create safety hazards, and can prevent riders with disabilities from accessing MTA service.

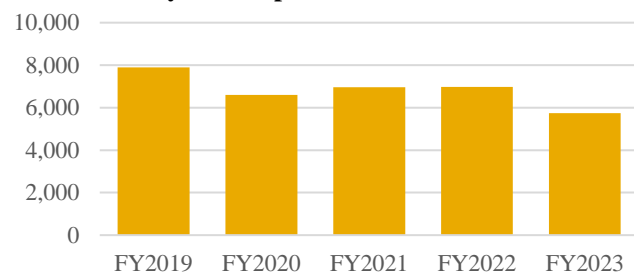
Automated Bus Lane Enforcement Nationwide

Elsewhere in the United States, wayside and on-board automated enforcement has been successful at reducing bus lane incursions and improving transit travel times. Automated enforcement of bus lanes in the San Francisco Bay Area has yielded travel time and on-time performance improvement of up to 20%.ⁱ New York and San Francisco have specifically found that automated enforcement discourages repeat bus lane violators. These successes are leading more cities to implement automated enforcement: Los Angelesⁱⁱ and Washington D.C. will begin their own programs in 2024.ⁱⁱⁱ

Bus Lane Enforcement in Baltimore

Manual bus stop/bus lane citations in Baltimore typically number 400 to 500 per month, down from 600 to 800 per month prior to the pandemic. Current legislation (Chapter 468 of 2022) allows Baltimore City to conduct automated enforcement of driving (but not parking or standing) in dedicated bus lanes.

Baltimore City Bus Stop/Lane Citations: FY2019–FY2023



Program Goals

For Baltimore, MTA and BCDOT have established three primary goals for bus lane enforcement:

Safety: Weaving and “queue jumping” by unauthorized vehicles are direct safety hazards, while standing or parking in bus lanes indirectly leads to a safety hazard when buses need to abruptly pull out of dedicated bus lanes after encountering stopped vehicles.

Transit Service Reliability: Unauthorized standing and parking delay transit in bus lanes.

Accessibility: Bus lane violators prevent buses from pulling to the curb, keeping passengers who use wheelchairs and other mobility aids from being able to board or alight from buses.

State of the Market and Technology

To better understand the state of the market for camera enforcement of dedicated bus lane violations, MTA conducted a Request for Information (RFI) from bus lane monitoring system vendors in the fall of 2023. This has allowed MTA to develop a non-vendor-specific summary of bus lane monitoring system capabilities and services. MTA will provide this information to Baltimore City and any other local governments within Maryland that may gain the ability to implement an automated bus lane monitoring system in the future so that they can set aggressive but realistic expectations when issuing Requests for Proposals for bus lane monitoring.

MTA requested information about the four primary types of automated enforcement systems:

System Type	Precedent in Maryland
Stationary: permanently mounted at places with high numbers of known violations.	Red-light cameras in use by local jurisdictions throughout the state
Mobile Stationary: placed on pedestals and moved every several weeks or months	Speed cameras in more than 45 jurisdictions in 16 counties throughout the state
Mobile: mounted on an enforcement vehicle to be easily movable on a daily basis	Maryland SafeZones program for work zone speed enforcement
On-Board: mounted on buses to enforce violations that directly inhibit transit service.	School bus stop-arm enforcement used by school districts in 12 Maryland counties

The responding vendors provided a wealth of information about the practices and capabilities of current bus lane monitoring systems. The responses also revealed trends and issues about automated bus lane enforcement that may be of interest to the General Assembly:

Competitiveness in Bidding: Half of responding vendors provide all types of equipment capable of enforcing bus lane violations through both photo and video capture. Mobile and on-board set-ups are most widely offered. Not all systems would distinguish an extended stop mid-block if a vehicle subsequently turned right.

Privacy and Data Protection: All vendors had robust data privacy practices. Camera systems generally capture and retain only images and video that show violations. This is much more limited than MTA’s current onboard video monitoring systems, which retain continuous interior and exterior video for approximately 30 days before it is overwritten.

Automated Functions and Human Input: Vendors predominantly rely on automation for tasks such as data processing, video analysis, notice generation, and payment processing. While they leverage automated workflows, they also incorporate human verification, especially for quality assurance and final approval of violations by law enforcement.

Minority/Disadvantaged Business (MBE/DBE) Participation: Vendors cite a range of 3% to 51% MBE/DBE contract participation, with an average of 16%. MBE/DBE would have various subcontracting roles, depending on need and expertise, including design, engineering, installation and removal, back-office processing, field maintenance, and public outreach.

ⁱ https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=202120220AB917#

ⁱⁱ <https://boardagendas.metro.net/board-report/2023-0458/>

ⁱⁱⁱ <https://ddot.dc.gov/clearlanesprogram>