

Seattle Department of Transportation

Automated Traffic Safety Camera Program Implementation Guidance



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Seattle
Department of
Transportation

1. Purpose

Vision Zero is Seattle’s plan to end traffic deaths and serious injuries on city streets by 2030. The *Safe System Approach*, established by the United States Department of Transportation (USDOT), is the Seattle Department of Transportation (SDOT) Vision Zero Program’s adopted framework for transportation safety. This framework is centered on the idea of integrating multiple layers of protection to prevent crashes from occurring and reducing severity when they do occur. *Safer People* and *Safer Speeds* are two of the five Safe System Approach elements, and both focus on encouraging safe driver behavior through education, roadway design, and enforcement. Automated traffic safety cameras (ATSCs)—particularly speed ATSCs—are identified by the USDOT’s Federal Highway Administration (FHWA) as a *Proven Safety Countermeasure*, and have been demonstrated to *improve traffic safety* in Seattle.

While the state and local laws authorizing the use of ATSCs impose some requirements on program administration, SDOT has developed additional practices to address administrative needs. The purpose of this implementation guidance is to establish and document those practices, integrate equity considerations into the ATSC program administration beyond those outlined under state and local law, and create a procedure for camera siting, removal, or relocation based on ongoing program performance monitoring. This implementation guidance was developed in acknowledgment that ATSCs are considered interim safety countermeasures while other safety improvements including self-enforcing roadway design elements can be planned, designed, funded, and constructed. This implementation guidance is intended to be a living document that will be updated as SDOT continues to evaluate and refine individual program elements.

2. Program and Legislative Background

In 2005, Seattle City Council unanimously passed [Ordinance 121944](#) in response to the new state law [2005 c 167 § 1](#). Even though this state law provided authority for use of ATSCs to detect red-light, railroad crossing, and school speed zone violations, the local ordinance only adopted the authority for use of red-light ATSCs. In 2006, a 12-month pilot project was designed to test the effectiveness of red-light ATSCs at four intersections in Seattle. An evaluation showed the ATSCs reduced red-light running by 50% and that fewer injury crashes occurred at the pilot intersections. Based on the favorable findings of the pilot, Seattle expanded the program and currently operates red-light ATSCs at 23 intersections citywide.

In 2008, the City Council passed [Ordinance 122725](#) authorizing the use of ATSCs to enforce speeding in school speed zones. Seattle Police Department (SPD), in coordination with SDOT, contracted with an ATSC vendor for the deployment of mobile camera vans at 11 school speed zone locations. SDOT and SPD began expanding the school speed zone program using fixed cameras in 2012. As of 2024, there were 19 school speed zone camera locations near 18 schools, and the program is currently expanding to operate at 38 school speed zone locations.

In 2011, a new state law [2011 c 367 § 704](#) enabled cities to pilot ATSCs to enforce speeding violations outside of school speed zones. In 2012, the City Council adopted [Ordinance 123946](#), which

adopted the provisions of the new state law. Later in 2012, an ATSC pilot project established two arterial locations where a mobile camera van was placed to detect speeding violations all day on a rotating basis. The pilot enforcement at the two locations ended in 2014. Due to SPD staffing constraints and the limited ability to regularly deploy the mobile camera van at the school speed zone locations, the van was formally deactivated and returned to the vendor in 2020.

In June 2020, the State Legislature passed [2020 c 224 § 1](#) allowing jurisdictions to pilot ATSCs to detect “block-the-box,” public transportation-only lane (PTOL), and restricted lane violations. In October 2020, the City Council adopted [Ordinance 126183](#), allowing use of those new types of ATSCs in Seattle through June 30, 2023. Beginning in November 2020, the City piloted restricted lane ATSC to enforce the temporary use restrictions on the Lower Spokane St Bridge during the closure of the West Seattle High Bridge. In spring/summer 2022, the City further deployed pilot ATSCs at four locations to detect intersection blocking (“block-the-box”) violations and at five locations to detect PTOL violations. In June 2023, City Council passed [Ordinance 126841](#), which extended authority for the pilot ATSCs for an additional two years, as authorized by the State Legislature through [2022 c 182 § 423](#).

In March 2024, the State Legislature passed [2024 c 307 § 1-12](#), which repealed the former ATSC authorization, and replaced it with updated provisions within RCW [46.63.200](#), [46.63.210](#), [46.63.220](#), [46.63.240](#), [46.63.250](#), and [46.63.260](#). The bill became effective on June 6, 2024, and included indefinite authority for all allowable types of ATSCs in Seattle, increased programmatic oversight requirements, and allowed for infraction

review by civilian employees of certain government agencies. It also established new restrictions and regulations pertaining to program revenues and equity-focused fine mitigation provisions. The City adopted these provisions into the Seattle Municipal Code through [Ordinance 127213](#) in May 2025. This ordinance also establishes an Automatic Traffic Camera Safety fund and directs how revenues can be spent.

3. Administration

The ongoing operations and administration of the ATSC program are carried out primarily by SPD, SDOT, and Seattle Municipal Court (MuniCourt), which are assigned the following responsibilities:

- SPD is responsible for:
 - > Reviewing infractions within the 14-day window required by RCW 46.63.220 and issuing citations,
 - > Administering the ATSC vendor contract,
 - > Contributing SPD data for the ATSC Annual Report,
 - > Responding to public and media inquiries, and
 - > Conducting regular coordination tasks with the vendor, and other departments to maintain operations of the ATSC equipment and citation processes.
- SDOT is responsible for:
 - > Analyzing the program and guiding camera location, removal or relocation,
 - > Preparing siting analyses for new or relocated cameras,
 - > Preparing the ATSC Annual Report,
 - > Permitting and coordinating ATSC-related infrastructure work in the right-of-way, in coordination with Seattle City Light and other agencies,
 - > Responding to public and media inquiries, and
 - > Conducting regular coordination tasks with the vendor and other departments to maintain operations of the ATSC equipment.
- MuniCourt is responsible for:
 - > Collecting fine payments for ATSC citations,
 - > Administering fine mitigation processes,
 - > Administering ATSC court proceedings,
 - > Maintaining database integration with the ATSC vendor, and
 - > Contributing MuniCourt data for the ATSC Annual Report prepared by SDOT.

3.1 ATSC ANNUAL REPORT

There are annual reporting requirements detailed in the State and local codes. This document details the process for those requirements to be met by one annual report to be prepared by SDOT in collaboration with SPD and MuniCourt.

RCW 46.63.220 and **SMC 5.82** require that, by July each year, the City will post an annual ATSC report to its website including the number of traffic crashes that occurred at each location where a camera is located, as well as the number of notices of infraction issued for each camera. Beginning January 1, 2026, the annual report must include the percentage of revenues received from fines issued from ATSC infractions that were used to pay for the costs of the ATSC program and must describe the uses of revenues that exceeded the costs of operation and administration of the ATSC program by the jurisdiction.

Combining the requirements of the State and local laws and the need for supplementary data reporting, this report shall include:

- A summary of camera locations by ATSC type (SDOT),
- The number of traffic crashes that occurred at each location where a camera is located (SDOT)*,
- The number of notices of infraction issued for each camera, including the number of warnings and finable infractions (SPD)*,
- The percentages of fines paid and adjusted by ATSC type (as reported on March 31 of the following calendar year (MuniCourt),
- The percentages of violations that exceeded the allowable 14-day violation review window set out by [RCW 46.63.220](#) by ATSC type (SPD),
- Percentage of revenues used to cover the costs of operation and administration of the ATSC program by department and cost type (SDOT, SPD, MuniCourt)*,
- Description of revenue uses that exceeded the costs of operation and administration of the ATSC program (SDOT)*
- Other relevant traffic safety and operational data at the camera locations, as necessary (SDOT).

3.2 INTERDEPARTMENTAL TEAM

The ongoing operations, administration, adjustment, and potential expansion or contraction of the ATSC program require carefully coordinated actions between multiple departments under the Executive. To facilitate this coordination, SDOT will convene an Interdepartmental Team (IDT) at least twice annually to discuss program administration tasks, share departmental recommendations, and inform the Executive's decisions on ATSC program actions.

Section 3.3 below further discusses specific actions to be carried out by the ATSC IDT.

3.2.1 IDT Roles

- Mayor's Office representative - chair
- City Budget Office representative - member
- SDOT executive liaison - member
- SDOT program manager - member
- SDOT finance representative - member
- SPD executive liaison - member
- SPD program manager - member
- SPD finance representative - member
- MuniCourt executive liaison - member
- MuniCourt finance representative - member
- City Attorney's Office representative - member

*Data required in ATSC Annual Report per RCW 46.63.220(6)(b)(i)

3.3 ANNUAL PROGRAMMATIC REVIEW AND MODIFICATIONS

The process detailed below guides the review of existing camera locations and operational data necessary to develop recommendations to modify or add ATSC camera locations:

1. SDOT will annually prepare preliminary analysis and guidance on the number of camera locations that may be suitable for removal, relocation, or addition. For any potential camera removals or relocations, factors that will be considered in the analysis should include but are not limited to:
 - a. Requisite and desired countermeasures (to the extent feasible) that may have been implemented at the ATSC location,
 - b. Sustained significant reduction in crashes and/or crash severity compared to previous years,
 - c. Low volume of or sustained significant reduction in the number of violations compared to previous years.
2. SDOT will present the ATSC Annual Report, the preliminary analysis and guidance to the IDT.
3. SDOT, SPD and MuniCourt will confirm the budgetary and staffing resources needed for any potential modifications.
4. Based on SDOT's analysis and the IDT's guidance and feedback, the Executive will provide direction on the maximum number and type of cameras that may be considered for removal, relocation, or addition in the following biennium, or sooner if practical.
5. SDOT will then conduct the siting analysis for new or relocated cameras, as described in Section 5.1 of this document. The analysis must be entered into the legislative record before the activation of new or relocated ATSCs.
6. SDOT will present the final siting analysis to the ATSC IDT. IDT representatives will carry forward any final direction from the Executive on ATSC program modifications through the City budget process including all upfront, program administration, and ongoing operating costs. The ATSC IDT will establish a schedule for implementation, with acknowledgement of schedule dependencies such as budget approval.
7. SDOT will notify City Council of programmatic changes through the City budget process and SDOT will inform City Council separately of changes not requiring budgetary action. SDOT, SPD, and MuniCourt will be responsible for submitting respective budget requests to align resources with programmatic modifications as necessary.

3.4 BUDGET PROCEDURES AND PROGRAM COSTS

Appropriate annual budgeting for SDOT, SPD and MuniCourt is required to comply with state and local laws, and to ensure city resources are being allocated equitably to optimize traffic safety. Budgetary resources are required for these three departments to review citations, collect fine payments, optimize camera siting, and meet the programmatic requirements outlined in this section. Three components of the ATSC program must be considered during each annual City budget cycle:

- The program administration costs and ongoing operating costs for SDOT, SPD, and MuniCourt associated with existing camera locations (as specified above),
- The upfront costs to support the design, permitting, and construction coordination of new camera locations,
- The ongoing operating costs for SDOT, SPD, and MuniCourt due to an increased or decreased number of camera locations and/or volume of citations.

Upfront costs for implementation of any safety camera are primarily incurred by SDOT, and would include those to complete planning, design, permitting, and construction coordination. Additionally, SDOT crews would need to support construction activities via work orders for traffic control and sign installation. Finally, SDOT communications staff would need to conduct outreach and education in communities where safety cameras are planned, as outlined in Section 5.3.

SDOT, SPD, and MuniCourt's annual program administration and ongoing operating costs are inclusive of staff program support roles, annual reporting, website maintenance, communications, vendor payments, infraction review, and implementation of tools for citation and payment administration.

3.5 PRACTICE FOR PROGRAMMATIC EDUCATION

To increase transparency of the ATSC program, SDOT will lead the ongoing program-level outreach and education efforts. These efforts will focus on ensuring that community members, including drivers, new residents, and visitors in Seattle, are aware of the ATSC program, the camera locations, and any program changes. Program-level communications should emphasize the safety need for ATSCs and how the program aligns with the Safe System Approach and SDOT's Vision Zero program. In addition to the outreach process for new or relocated cameras outlined in Section 5.3, the program-level education should include:

- Maintaining and regularly updating a webpage for the ATSC program,
- Posting the ATSC Annual Report, key statistics, and an interactive map of camera locations to the program webpage,
- Updating SDOT's blog and social media about modifications to the ATSC program, including changes to camera locations (as detailed in Section 5.3),
- Engaging the City's modal advisory boards, key stakeholders, nearby schools and institutions, and media outlets (as applicable) about changes to the ATSC program, and program performance.

4. Managing Equity Impacts of the ATSC Program

Under the City of Seattle's *Race and Social Justice Initiative (RSJI)*, SDOT established the Transportation Equity Workgroup (TEW) in 2019 to seek input from a broad and diverse set of community members representing Black, Indigenous, and People of Color (BIPOC) and vulnerable communities. Their input was used to guide the equitable development of the City's transportation policies and define a set of values and strategies for the *Transportation Equity Framework (TEF)*. The TEF guides the actions of SDOT programs through 220 specific TEF tactics established in the TEF Implementation Plan.

Several TEF Tactics directly relevant to the ATSC Program and this implementation guidance include:

- **42.2** - Identify existing non-punitive alternatives to traffic violation fines & fees; coordinate with community-based organizations to recommend new or revised non-punitive alternatives such as restorative justice measures, community service options, or online traffic safety classes; review opportunities to reward positive safety-related behaviors.
- **43.5** - Continue to identify opportunities where SDOT can coordinate effective efforts to change right-of-way and transit enforcement, and/or support equitable enforcement practices with other City departments, transportation agencies and advocates.
- **43.6** - Identify curbside and traffic enforcement practices that disproportionality harm BIPOC communities; coordinate and strategize with City of Seattle departments and partners to replace with community-tailored and non-policing interventions.
- **44.1** - Identify programmatic and policy opportunities from the findings of the racial equity toolkit (RET) on automated enforcement programs to address unintended consequences and work towards creating non-financial, restorative-based alternatives.
- **44.2** - Review the City of Seattle's revenue and distribution of traffic violation funds; create a proposal that directly reinvests traffic violation revenues into new or revised non-punitive payment programs and transportation safety education (may require changes at the State level as well).
- **44.3** - Identify existing payment options and private collection processes related to traffic violation fines & fees; coordinate with community-based organizations to recommend alternative payment options such as reduced ticket fines and fees, payment plans, graduated fine structures, or income-based fines; seek to eliminate or drastically reduce the use of private collection companies.

To identify equity impacts for vulnerable communities, SDOT engaged the TEW and key community organizations to advise on equitable practices for the expansion of ATSC. Using the findings from this process, equity-focused provisions have been included in this implementation guidance and the SMC sections governing ATSCs. This includes equity provisions relating to camera siting, the issuance of citations, the investment of camera-generated revenues, and the program's ongoing community outreach and education.

Equity is a cornerstone of the ATSC program, and SDOT will continue to analyze equity outcomes of the ATSC program to better mitigate impacts on BIPOC, vulnerable, and disadvantaged communities. While the cameras can improve traffic safety performance and operations metrics in the communities they're located, SDOT recognizes that they can simultaneously increase the burden for disadvantaged and lower-income populations that experience disproportionate impacts associated with monetary fines.

4.1 INITIAL WARNING PERIOD

Warnings provide a written notice to drivers violating traffic laws at an ATSC location, helping to increase compliance without issuing a monetary fine. The SMC goes beyond state law requirements to mandate that warnings will be issued for the first violation of each type of ATSC for all infractions detected within the first 30 days following the activation of any new or relocated camera. Warnings will be issued to the registered owner of the violating vehicle.

4.2 FINE MITIGATION PROGRAMS AND ABILITY-TO-PAY CALCULATOR

MuniCourt offers existing programs that provide pathways to mitigate the impacts of traffic infraction fines based on income or participation in public assistance programs. These include:

- ***Ticket Debt Reduction Hearings:*** Eligible residents can apply for a debt reduction hearing for parking, traffic, or camera ticket debt that exceeds \$300.
- **Payment Plans:** Residents may request payment plans for fines and fees, including reduced monthly payment plans for eligible residents.
- ***Community Service Plans:*** Eligible residents may request to perform community service work in lieu of paying fines and fees.
- ***The Unified Payment Program:*** Unpaid fines in more than one King County jurisdiction may be combined into a single monthly payment.

Additionally, [*RCW 46.63.220*](#) requires that 50% fine reductions be made available for people enrolled in the Women, Infants, and Children assistance program and who receive subsequent violations within 21 days of the first ATSC violation.

Consistent with [*RCW 46.63.220*](#), MuniCourt will explore an online ability-to-pay calculator service. This tool would function to determine eligibility for all fine mitigation and assistance programs listed above. Additional education on the existing fine mitigation programs and improvements to access will also be explored as the ATSC program is expanded.

4.3 REVENUE INVESTMENT AND CAMERA REMOVAL OR REDISTRIBUTION

In alignment with [SMC 5.82.010](#), revenue generated from ATSCs must first be used for costs of operating and administering the program, including camera expansion, removal, relocation, and maintenance. After accounting for these costs, the net revenue generated from cameras must be used according to the following use and allocation restrictions, according to camera type.

Red light cameras:

- 15% of net revenue must be spent on safety, including traffic, student, bicycle, and pedestrian safety and directly related infrastructure projects; operational and maintenance investments that support traffic safety and Vision Zero; transportation improvements that support equitable access and mobility for persons with disabilities; transportation projects designed to reduce motor vehicle speeds, as well as pedestrian, bicyclist, and driver education campaigns.
- 15% of net revenue must be spent on the construction of new sidewalks, sidewalk alternatives, and the repair of existing sidewalks.

All other camera types:

- 85% of net revenue must be spent on safety, including traffic, student, bicycle, and pedestrian safety and directly related infrastructure projects; operational and maintenance investments that support traffic safety and Vision Zero; transportation improvements that support equitable access and mobility for persons with

disabilities; transportation projects designed to reduce motor vehicle speeds, as well as pedestrian, bicyclist, and driver education campaigns.

- 15% of net revenue must be spent on the construction of new sidewalks, sidewalk alternatives, and the repair of existing sidewalks.

To cover these investments, all revenue from all camera types (except for 70% of the net revenue from new and existing red-light cameras) will be deposited directly into the Automated Traffic Camera Safety Fund.

Of the revenues allocated for safety investment, funds shall be prioritized to implement requisite and/or desired safety countermeasures at camera locations with the intention of designing “self-enforcing roadways” that would allow ATSCs to be removed in the future. SDOT recognizes safety cameras as interim tools to improve the safety and operational performance of streets before permanent countermeasures can be constructed.

ATSC locations will be evaluated annually to assess their performance in achieving their objectives and their potential for removal or relocation. As outlined in Section 3.3, this evaluation should consider countermeasure implementation, improvement in safety and operational performance, and the volume of violations. This evaluation process also aligns with SDOT’s equity goals by providing a procedure for routinely reconsidering the need for automated enforcement when safety and operational goals have been achieved.

5. Deployment of New and Relocated Cameras

5.1 ATSC SITING ANALYSIS

The first step in the deployment of a new or relocated ATSC is to prepare an ATSC siting analysis. [RCW 46.63.220](#) and [SMC 11.50.570](#) require that the local legislative authority prepare an analysis of the locations within the jurisdiction where ATSC are proposed to be located before adding ATSC to a new location or relocating any existing camera to a new location within the jurisdiction. The analysis must be entered into the local legislative record.

The analysis must also demonstrate need for ATSCs based on one or more of the following in the vicinity of the proposed camera location:

- Travel by vulnerable road users,
- Evidence of motor vehicles speeding,
- Rates of crashes,
- Reports showing near crashes,
- Anticipated or actual ineffectiveness or infeasibility of other mitigation measures.

The analysis must include equity considerations including the impact of the camera placement on livability, accessibility, economics, education, and environmental health when identifying where to locate an ATSC.

To fulfill these legal requirements and equitably identify locations that may stand to benefit most from the implementation of ATSC to improve safety and operations, this implementation guidance further defines criteria and methodologies that SDOT shall document in an ATSC siting analysis:

1. Establish the need to improve safety and operations based on a systemic quantitative and qualitative analysis (Section 5.1.1),
2. Confirm presence of defined requisite countermeasures or confirm their feasibility to be deployed concurrently or after ATSC installation (Section 5.1.1),
3. Ensure cameras are distributed across RSEI tiers while balancing safety benefits and equity impacts (Section 5.1.2).

The criteria and methodologies are detailed below for each of the types of ATSC allowable under state and local law. The safety and operational needs analysis for the placement of new or relocated cameras should consist of scoring or evaluating the defined criteria below and evaluating requisite countermeasures. In addition to these criteria, qualitative considerations may be factored into the selection of ATSC locations, including policy directives, community requests, and equitable distribution of cameras. Engineering judgement should also be applied during the selection of ATSC locations to account for factors not captured through the metrics identified. Desired countermeasures are further

identified for each type of ATSC, and if determined appropriate for a planned or active ATSC location, should be funded by ATSC revenues in the Automated Traffic Camera Safety fund.

5.1.1 Safety & Operational Needs Analysis

5.1.1.1 RED-LIGHT ATSC

[RCW 46.63.230](#) and [SMC 11.50.570](#) allow for the use of ATSC to detect stoplight violations for intersections of two or more arterials with traffic control signals that have a yellow change interval duration in accordance with [SMC 11.50.130](#).

Safety & Operational Needs Criteria

The purpose of red-light ATSC is to discourage red light running and decrease the likelihood of associated crashes at signalized intersections. The safety and operational needs analysis for red-light ATSC shall incorporate the following scoring criteria and weighting factors:

- 1. Crash count score:** The number of motor vehicle vs. motor vehicle angle crashes and the number of motor vehicle vs. pedestrian crashes that involve the motor vehicle traveling straight through the intersection over a 5-year period at signalized intersections, by intersection approach. For scoring, normalize the crash count on a scale of 0-1, and weight crash count score to 70% of the *overall safety and operational needs score*.

- 2. Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data and/or other available speed data. For scoring, normalize the 85th percentile speeds by segments (intersection approach) on a scale of 0-1, and weight speed score to 20% of the *overall safety and operational needs score*.

- 3. Land use score:** Land use intensity tabulated for all arterial segments (intersection approaches). For scoring, assign a land use intensity score to each arterial segment of 0-1 based on land use Place Type (as defined in the Draft One Seattle Comprehensive Plan), and weight land use intensity score to 10% of the *overall safety and operational needs score*.

Requisite Countermeasures

- Retroreflective signal head backplates,
- Appropriate signal clearance intervals,
- Stop bar and crosswalk markings, where applicable,
- Street designation signs,
- Adequate stopping sight distance to signal or advance signal-related traffic control.

Desired Countermeasures

- 12" signal indications,
- Additional signal indications for 3+ through lane approaches,
- Speed reducing features, such as speed cushions, lane narrowing, and other traffic calming elements.

5.1.1.2 RAILROAD CROSSING ATSC

[RCW 46.63.240](#) and [SMC 11.50.570](#) allow for the use of ATSC to detect instances when a motor vehicle fails to stop when facing an activated railroad grade crossing control signal.

Safety & Operational Needs Criteria

The purpose of railroad crossing ATSC is to discourage motor vehicle crossings at activated railroad grade crossing signals and to reduce the likelihood of train-motor vehicle crashes. The safety and operational needs scoring analysis for railroad crossing ATSC shall incorporate the following criteria and weighting factors:

- **Crash count score:** The number of crashes involving a motor vehicle and a train over a 5-year period at signalized railroad grade crossings, by crossing approach. For scoring, normalize the crash count on a scale of 0-1, and weight crash score to 70% of *overall safety and operational needs score*.
- **Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data and/or other available speed data. For scoring, normalize the 85th percentile speeds by segments (intersection approach) on a scale of 0-1, and weight speed score to 20% of the *overall safety and operational needs score*.
- **Land use score:** Land use intensity tabulated for all arterial segments (intersection approaches) . For scoring, assign a land use intensity score to each arterial segment of 0-1 based on land use Place Type (as defined in the Draft One Seattle Comprehensive Plan), and weight land use intensity score to 10% of the *overall safety and operational needs score*.

Requisite Countermeasures

- Grade crossing warning and regulatory signage and markings per the Manual on Uniform Traffic Control Devices (MUTCD) and other applicable standards,
- Double yellow centerline markings, as appropriate, at the railroad grade crossing.

Desired Countermeasures

- Approach gate arms,
- Vertical centerline or median treatments such as curbing or median islands.

5.1.1.3 SPEED ATSC IN SCHOOL SPEED ZONES

The state and local law allows for the use of ATSC to detect speed violations within school speed zones, as defined in [RCW 46.61.440](#) and [SMC 11.50.570](#).

Safety & Operational Needs Criteria

The purpose of speed ATSC in school speed zones is to discourage motor vehicle speeding when children are present and reduce the likelihood and severity of crashes involving school children. The safety and operational needs scoring analysis for speed ATSC in school speed zones shall incorporate the following criteria and weighting factors:

- **Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data and/or other available speed data during school pickup and drop-off hours. For scoring, normalize the 85th percentile speeds by segments on a scale of 0-1, and weight speed score to 80% of the *overall safety and operational needs score*.

- **Injury risk score:** Vision Zero High Injury Network (HIN) score by HIN segment. For scoring, normalize the HIN score on a scale of 0-1, and weight injury risk score to 20% of the *overall safety and operational needs score*.

Speed data for high-scoring corridors will be corroborated with additional speed studies, as needed. Any locations with 85th percentile speeds less than 6 MPH over the school zone speed limit will be removed from consideration.

Requisite Countermeasures

- School zone advance warning signage,
- School speed zone flashing beacons.

Desired Countermeasures

- Speed reducing features, such as speed cushions, raised crosswalks or intersections, lane narrowing, horizontal lane shifts, signal progression to match posted speeds, and other traffic calming elements,
- Radar speed feedback signs.

5.1.1.4 SPEED ATSC IN HIGH CRASH RISK LOCATIONS

[RCW 46.63.250](#) and [SMC 11.50.570](#) allows use of ATSC to detect speeding violations in locations deemed to experience higher crash risks due to excessive motor vehicle speeds.

Safety & Operational Needs Criteria

The purpose of ATSC in high crash risk locations is to discourage motor vehicle speeding to reduce the likelihood and severity of crashes. The safety and

operational needs analysis for speed ATSC in high crash risk locations shall incorporate the following criteria and weighting factors:

- **Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data and/or other available speed data. For scoring, normalize the 85th percentile speeds by segments on a scale of 0-1, and weight speed score to 50% of the *overall safety and operational needs score*.
- **Injury risk score:** Vision Zero High Injury Network (HIN) score by HIN segment. For scoring, normalize the HIN score on a scale of 0-1, and weight injury risk score to 50% of the *overall safety and operational needs score*.

Speed data for high-scoring corridors will be corroborated with additional speed studies, as needed. Any locations with 85th percentile speeds less than 6 MPH over the posted or statutory speed limit will be removed from consideration.

Requisite Countermeasures

- Regularly spaced speed limit signage in advance of potential ATSC location per current guidance.
- Desired Countermeasures
- Speed reducing features, such as speed cushions, raised crosswalks or intersections, lane narrowing, horizontal lane shifts, signal coordination per posted speed limits, and other traffic calming elements.
- Radar speed feedback signs.

5.1.1.5 SPEED ATSC IN PUBLIC PARK AND HOSPITAL SPEED ZONE LOCATIONS

RCW 46.63.250 and **SMC 11.50.570** allows for the use of safety cameras to detect speeding violations in public park and hospital speed zones. The definitions for public park and hospital speed zones as defined in the **RCW 46.63.210** are as follows:

“Hospital speed zone” means the marked area within hospital property and extending 300 feet from the border of the hospital property (a) consistent with hospital use; and (b) where signs are posted to indicate the location is within a hospital speed zone,

“Public park speed zone” means the marked area within public park property and extending 300 feet from the border of the public park property (a) consistent with active park use; and (b) where signs are posted to indicate the location is within a public park speed zone.

Safety & Operational Needs Criteria

The purpose of ATSC in public park and hospital speed zones is to reduce the likelihood and severity of crashes near public parks and hospitals where there is more likely to be higher concentrations of vulnerable populations. The safety and operational needs analysis for speed ATSC in park and hospital speed zone locations shall incorporate the following criteria and weighting factors:

- **Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data

and/or other available speed data within the public park or hospital speed zones. For scoring, normalize the 85th percentile speeds by segments on a scale of 0-1, and weight speed score to 50% of the *overall safety and operational needs score*.

- **Injury risk score:** Vision Zero High Injury Network (HIN) score by HIN segment. For scoring, normalize the HIN score on a scale of 0-1, and weight injury risk score to 50% of the *overall safety and operational needs score*.

Speed data for high-scoring corridors will be corroborated with additional speed studies, as needed. Any locations with 85th percentile speeds less than 6 MPH over the posted or statutory speed limit will be removed from consideration.

Requisite Countermeasures

- Regularly spaced speed limit signage in advance of potential ATSC location per current guidance.
- Posted signs to indicate Public Park Speed Zone or Hospital Speed Zone.

Desired Countermeasures

- Speed reducing features, such as speed cushions, raised crosswalks or intersections, lane narrowing, horizontal lane shifts, signal progression to match posted speeds, and other traffic calming elements.
- Radar speed feedback signs.

5.1.1.6 SPEED ATSC IN SCHOOL WALK ZONE LOCATIONS

[RCW 46.63.250](#) and [SMC 11.50.570](#) allow for the use of safety cameras to detect speeding violations in school walk zones. [RCW 46.63.210](#) defines the term ‘school walk zone’ as:

“School walk zone” means a roadway identified under RCW 28A.160.160 or roadways within a one-mile radius of a school that students use to travel to school by foot, bicycle, or other means of active transportation.

Safety & Operational Needs Criteria

The purpose of ATSC in school walk zones is to reduce the likelihood and severity of crashes on routes students or families may be using for school access. The safety and operational needs analysis for speed ATSC in school walk zone locations shall incorporate the following criteria and weighting factors:

- **Speeding score:** 85th percentile motor vehicle speeds using existing citywide connected-motor vehicle speed data and/or other available speed data. For scoring, normalize the 85th percentile speeds by segments on a scale of 0-1, and weight speed score to 50% of the *overall safety and operational needs score*.
- **Injury risk score:** Vision Zero High Injury Network (HIN) score by HIN segment. For scoring, normalize the HIN score on a scale of 0-1, and weight injury risk score to 40% of the *overall safety and operational needs score*.

- **Land use score:** Land use intensity tabulated for all arterial segments (intersection approaches). For scoring, assign a land use intensity score to each arterial segment of 0-1 based on land use Place Type (as defined in the Draft One Seattle Comprehensive Plan), and weight land use intensity score to 10% of the *overall safety and operational needs score*.

Speed data for high-scoring corridors will be corroborated with additional speed studies, as needed. Any locations with 85th percentile speeds less than 6 MPH over the posted or statutory speed limit will be removed from consideration.

Requisite Countermeasures

- Regularly spaced speed limit signage in advance of potential ATSC location per current guidance.

Desired Countermeasures

- Speed reducing features, such as speed cushions, raised crosswalks or intersections, lane narrowing, horizontal lane shifts, signal progression to match posted speeds, and other traffic calming elements.
- Radar speed feedback signs.

5.1.1.7 SPEED ATSC IN ROADWAY WORK ZONES

RCW 46.63.250 and *SMC 11.50.570* allow for the use of safety cameras to detect speeding violations in roadway work zones. A “Roadway work zone” means an area of any city roadway, including state highways that are also classified as city streets under chapter 47.24 RCW, or county road as defined in RCW 46.04.150, with construction, maintenance, or utility work with a duration of 30 calendar days or more. A roadway work zone is identified by the placement of temporary traffic control devices that may include signs, channelizing devices, barriers, pavement markings, and/or work vehicles with warning lights. A roadway work zone extends from the first warning sign or high intensity rotating, flashing, oscillating, or strobe lights on a vehicle to the end road work sign or the last temporary traffic control device or vehicle.

Safety & Operational Needs Criteria

- Duration of a traffic control plan (TCP) is 30 consecutive days or more,
- Judgement by a traffic control supervisor or traffic engineer overseeing the work zone, with concurrence from the City Traffic Engineer, of observed or anticipated excessive speeds within TCP context.

Requisite Countermeasures

- Implemented approved temporary traffic control plan, including advance warning signs and other traffic control devices,
- Regularly spaced speed limit signage in advance of potential ATSC location per current guidance.

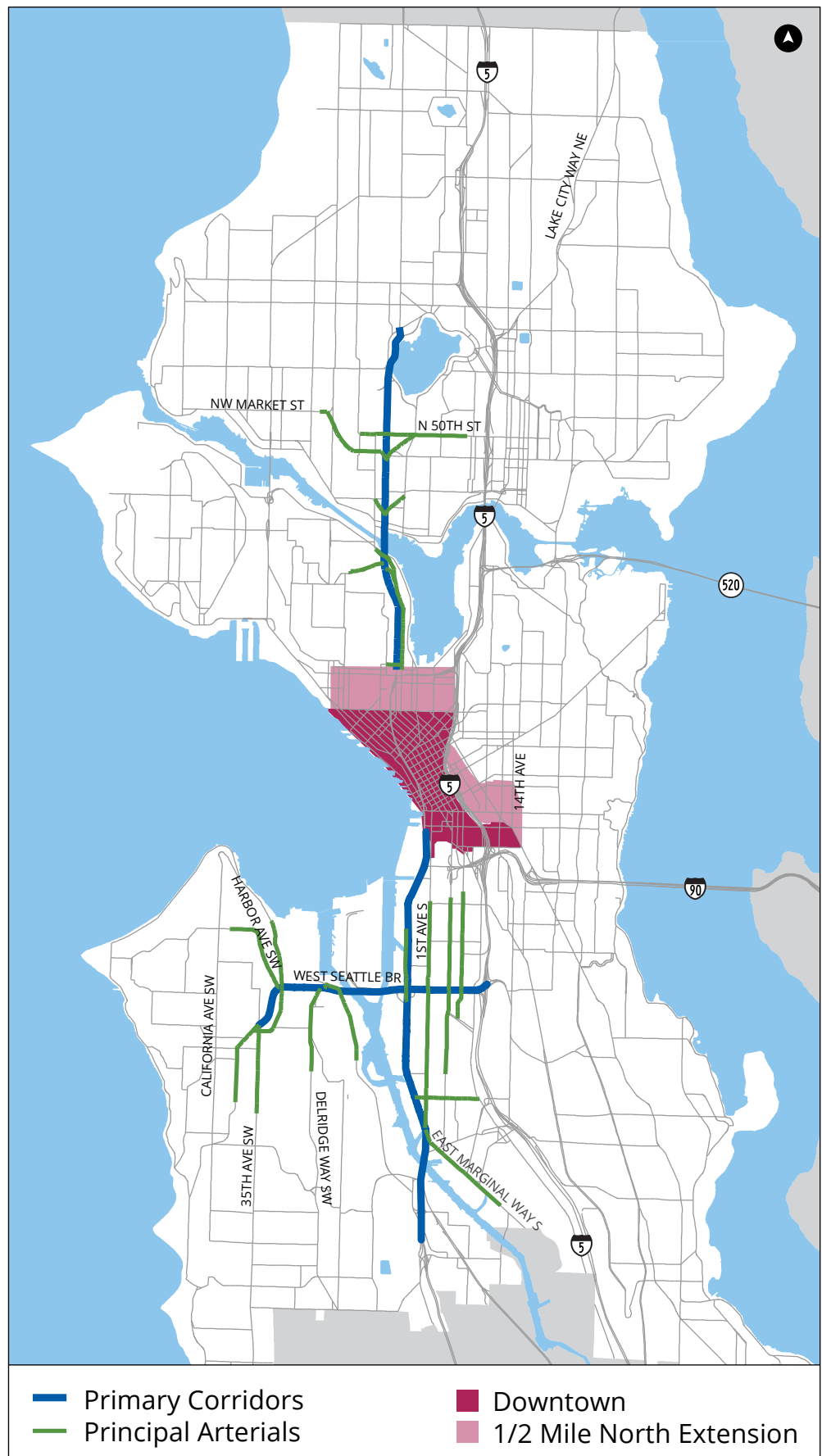
Desired Countermeasures

- Radar speed feedback trailer.
- Portable Changeable Message Signs.

5.1.1.8 PREFERENTIAL LANE ATSC (PUBLIC TRANSPORTATION-ONLY LANES AND RESTRICTED LANES)

RCW 46.63.260 and *SMC 11.50.570* allow for the use of ATSC to detect Public Transportation-Only Lane violations and stopping or traveling in restricted lane violations. Because Seattle is a city with bus rapid transit corridors and routes, public transportation-only lane ATSC may be used citywide, however use of restricted lane ATSCs is geographically restricted by state law to those areas and corridors depicted in Figure 1 below.

Figure 1 – Allowable Areas and Corridors for Restricted Lane and Block-the-Box ATSC Use



Safety & Operational Needs Criteria

The purpose of PTOL and restricted lane ATSC is to discourage private vehicles from using preferential lanes, thereby improving mobility for legal users of the lanes and reducing the likelihood of crashes in preferential lanes. The safety and operational needs analysis shall incorporate the following scoring criteria and weighting factors:

- **Mode preference score:** All eligible PTOL and restricted lanes by street segment tabulated on a score of 0-1. For those on both on RapidRide/Streetcar/BRT routes and Tier 1 Emergency Response Routes, assign a mode preference score of 1. For those on only one or the other, assign a mode preference score of 0.5. For those on neither, assign a score of 0. Weight mode preference score to 10% of the *overall safety and operational needs score*.
- **Injury risk score:** Vision Zero High Injury Network (HIN) score by HIN segment. For scoring, normalize the HIN score on a scale of 0-1, and weight injury risk score to 30% of the *overall safety and operational needs score*.
- **Transit/Emergency Operations score:** Normalized scores described below weighted as 60% of the *overall safety and operational needs score*.
 - > For PTOL and applicable restricted lanes with transit service, quantify passenger delay hours per day by street segment, trip delay by street segment, and average emergency response time by segment. Normalize each of these metrics on a scale of 0-1. Then

further combine each metric into the 'operations score', normalized on a scale of 0-1, with each metric contributing 70%, 15%, and 15% to the 'operations score', respectively.

- > For restricted lanes without transit service, quantify average emergency response time and normalize on a scale of 0-1.

Due to the complexities of operations and safety within preferential lanes, further qualitative evaluation and filtering is needed once high-scoring street segments have been identified using the overall safety and operational needs score. Engineering judgment should be applied to eliminate or group adjacent street segments, based on known operational issues that can't be mitigated by ATSC, similarity and proximity of like-segments, and factors such as engineering feasibility of camera placement.

Once the final list of candidate locations has been developed, peak period violation rate data, measured as an hourly motor vehicle volume, should be collected for each candidate lane.

Requisite Countermeasures

- Preferential lane regulatory signage,
- Applicable pavement marking word and/or symbol legends.

Desired Countermeasures

- Additional discretionary lane markings, such as supplementary pavement legends or red transit lane markings.

5.1.1.9 BLOCK-THE-BOX ATSC

[*RCW 46.63.260*](#) and [*SMC 11.50.570*](#) allow for the use of ATSC to detect “block-the-box” violations, which are defined as “stopping when traffic obstructed” violations and “stopping at intersection or crosswalk” violations. The use of “block-the-box” ATSC are geographically restricted by state law to those areas and corridors depicted in Figure 1 above.

Safety and Operational Needs Criteria

The purpose of “block-the-box” ATSC is to discourage motor vehicles from obstructing vehicle travel lanes, bike lanes, and crosswalks within an intersection, which impedes accessibility for people with disabilities and mobility for all modes of travel. “Block-the-box” camera locations will be identified based on documented reports of frequent mobility obstructions from SDOT staff, partner transportation agencies, public transit operators, accessibility groups, and community members. “Block-the-box” reports will be verified for safety and operational needs using one or more of the following metrics:

- Aggregated connected-motor vehicle travel time and delay data as available
- Transit travel time and delay data as available
- Intersection operation studies which demonstrate frequent use by vulnerable road users
- Crash data for incidents related to block-the-box violations

Intersections then will be ranked for “block-the-box” ATSC based on the collected qualitative and quantitative intersection data.

Requisite Countermeasures

- Retroreflective signal head backplates,
- Stop bar and crosswalk markings,
- Clearance intervals that meet current signal timing policy (currently documented in 2021 SDOT Policy for Traffic Signal Cycle Time and Pedestrian Signal Timing and Action Policy),
- ‘DO NOT BLOCK INTERSECTION’ signage.

Desired Countermeasures

- 12" signal faces,
- Corridor ITS enhancements to mitigate congestion.

5.1.1.10 FERRY QUEUE ATSC

The state and local law allows for the use of ATSC to detect ferry queue violations under [*RCW 46.61.735*](#) and [*SMC 11.50.570*](#), which restricts any vehicle from moving in front of another vehicle already in a queue waiting to board a ferry, without the authorization of a state ferry system employee.

Safety & Operational Needs Criteria

The purpose of ferry queue ATSC is to discourage ferry “queue cutting” and reduce the likelihood of crashes within ferry queuing lanes. Seattle does not currently have traffic control devices in place to convey ferry queue cutting regulations. If ferry queue ATSCs were installed in the future, locations that meet operational needs would be identified using:

- Qualitative reporting on frequent queue cutting sites from Washington State Ferries. This data may be corroborated with additional video-based studies of ferry queuing.
- Documented crash history within the ferry queuing lanes from the previous 5 years.

Requisite Countermeasures

- Signs at regular intervals conveying restrictions under [RCW 46.61.735](#),
- Modifications to lane markings to discourage queue cutting.

Desired Countermeasures

- Physical barriers, where appropriate.

5.1.2 Equity Analysis

SDOT is managing the equity impacts of ATSC through the measures established in Section 4 of this document and by using the equity overlay from the City's Racial and Social Equity Index (RSEI) to balance the distribution of cameras throughout the city. The index aggregates three subindices of U.S. Census Bureau data related to race & ethnicity, socioeconomic disadvantage, and health disadvantage, and then using this data, groups Seattle's 180 census tracts into quintiles of equity priority (Lowest Disadvantage, Second Lowest Disadvantage, Middle Disadvantage, Second Highest Disadvantage, and Highest Disadvantage).

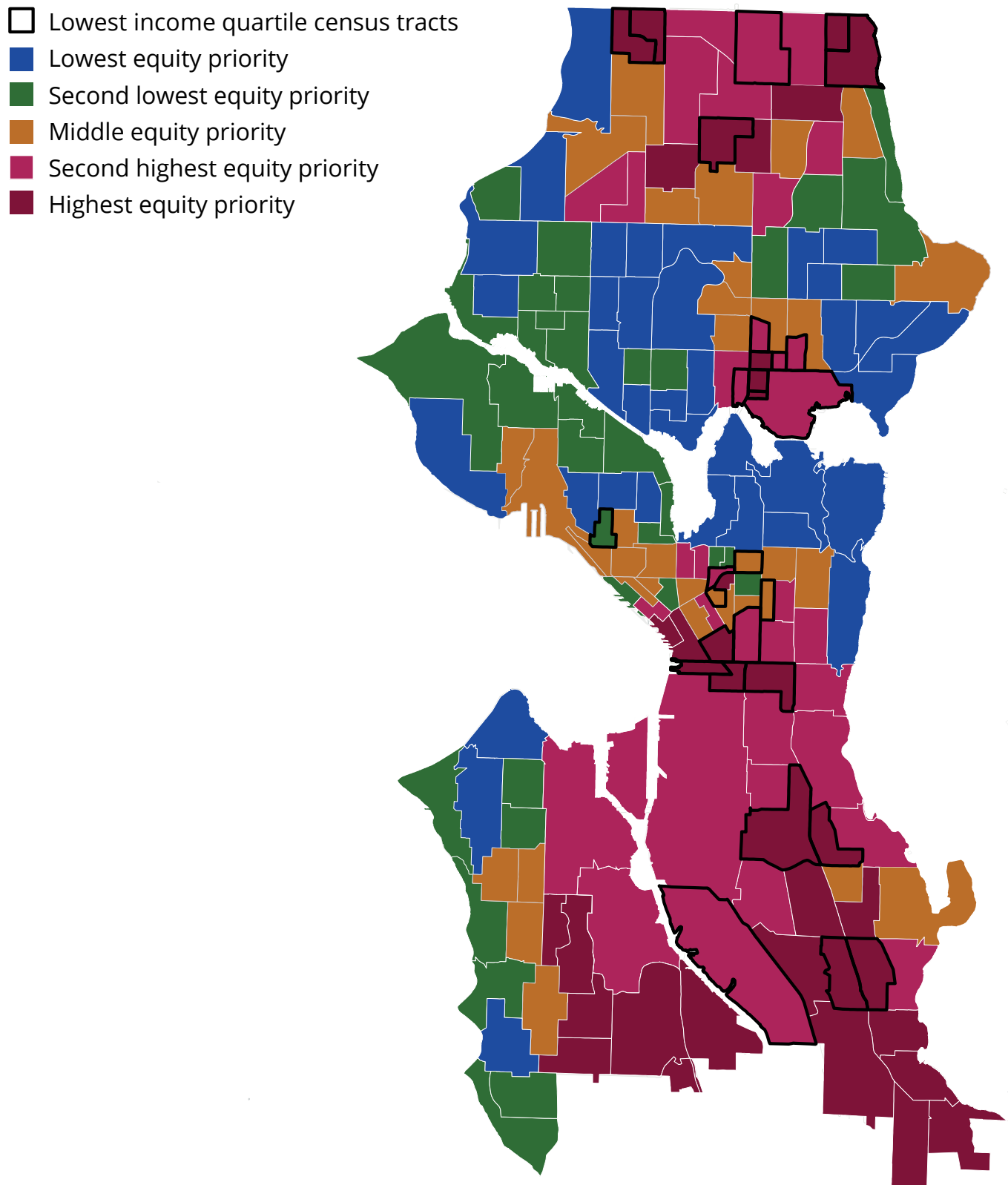
To fulfill the requirements of [RCW 46.63.220](#) and [SMC 11.50.570](#), and improve the equity outcomes of the program, SDOT will use the RSEI to analyze distribution of ATSC across the five equity quintiles when new or relocated cameras are proposed. The objective of this analysis is to strive to distribute ATSCs across all five equity tiers, while balancing equity with safety outcomes to prioritize cameras where they are most needed and supported by data.

Historically, the highest and second highest disadvantaged quintiles of census tracts have received a disproportionately higher share of school speed zone and red-light safety cameras, which has led to an increased enforcement burden in BIPOC and lower-income communities. At the same time, these disadvantaged communities have historically seen lower levels of transportation safety investments, higher levels of arterial speeding, and a disproportionate number of high-severity crashes.

If locations are identified as a priority through the safety and operational needs analyses described above and are within the two highest disadvantaged RSEI quintiles, other low-cost non-punitive desired countermeasures should be evaluated for feasibility to install when ATSCs are deployed. Higher cost and complex countermeasures potentially appropriate for those locations will be referred to the applicable City programs for further development, prioritization, and construction.

As described in Section 3.1, SDOT will continuously evaluate ATSC equity metrics in its annual programmatic review. This includes evaluating the distribution of cameras throughout geographic equity categories such as the RSEI and the number of infractions and warnings issued for each camera.

Figure 2 - Map of 2023 RSEI Tiers and Seattle's Lowest Median Household Income Quartile Census Tracts (2020 American Community Survey data)



5.2 ADVANCE SIGNAGE

RCW 46.63.220 and **SMC 11.50.570** require that:

“All locations where an ATSC is used on roadways or intersections must be clearly marked by placing signs at least 30 days prior to activation of the camera in locations that clearly indicate to a driver either that: (a) The driver is within an area where ATSC are authorized; or (b) the driver is entering an area where violations are enforced by an ATSC. The signs must be readily visible to a driver approaching an ATSC. Signs placed in ATSC locations after June 7, 2012, must follow the specifications and guidelines under the Manual of Uniform Traffic Control Devices for Streets and Highways as adopted by the Department of Transportation under chapter 47.36 RCW”.

This document further establishes that the advance signage shall indicate the regulation that is detected by the ATSC, either by symbol or word legend. The sign layout shall be standardized between all ATSC locations of a camera type. Under state law, mobile ATSC equipment may be temporarily placed at predetermined locations. This document stipulates that permanently installed advance signage at mobile ATSC locations shall be used and is subject to the same standards and implementation guidance provisions as fixed ATSC locations.

5.3 Engaging the Community in the Deployment of ATSC

SDOT's community engagement procedures are critical components in the process for deployment of new or relocated ATSC. They're intended to be multi-generational, multilingual, focus on the “why we are installing a camera”, “how we came to determine this location”, “what to expect once the cameras are installed”, and provide space for people to ask questions and provide feedback. It is important to engage stakeholders early in the process to understand any potential impacts related to construction and the physical infrastructure itself. This engagement process is also critical for building awareness of the ATSC program, how ATSC is rooted in Seattle's Vision Zero safety goals, and the operational changes that can be expected when an ATSC is active.

For the deployment of new or relocated ATSCs, SDOT should engage the community through the following steps:

At least 60 days before ATSC activation	At least 30 days before ATSC activation	First 30 days after ATSC activation	31+ days after ATSC activation	Up to 1 year after ATSC activation
Post the ATSC siting analysis, new or relocated camera locations, and the timeline for deployment to SDOT's blog, website, and/or social media.	City crews will install advance warning signage at the new or relocated camera locations.	Issue warnings with educational materials to motor vehicle owners when their vehicle is detected violating the applicable traffic law at the new or relocated ATSC location.	Begin issuing citations for all infractions at new or relocated ATSC locations.	Publish ATSC Annual Report and notify the Transportation Equity Workgroup and key community stakeholders about the report and camera performance data.
Identify and begin engagement with key community stakeholders and local media near planned ATSC locations.	Post to SDOT's social media and update media outlets on the ATSC activation schedule.			
Notify the City's modal advisory boards and media outlets (as applicable) about the new or relocated cameras.	Send digital communications to school families for new or relocated school speed zone ATSCs.			

Seattle Department of Transportation
700 5th Avenue, Suite 3800
PO Box 34996
Seattle, WA 98124-4996
(206) 684-ROAD (7623)
seattle.gov/transportation
seattle.gov/visionzero



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