**CITY OF ALBANY**
**CITY COUNCIL AGENDA**
**STAFF REPORT**

Agenda Date: May 17, 2021
Reviewed by: NA

**SUBJECT**: Proposed State Legislation on Setting and Enforcing Speed Limits (AB 43 and AB 550)

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## SUMMARY

The action before the City Council is to submit letters in support of two state bills related to speed limit setting and enforcement.

## TRANSPORTATION COMMISSION RECOMMENDATION

That the Council adopt resolutions in support of AB 43 and AB 550.

## STAFF RECOMMENDATION

That the Council submit letters in support of AB 43 and AB 550.

## BACKGROUND

Two bills regarding speed and traffic safety based on Vision Zero principles have recently been introduced in the State Legislature. Vision Zero is a worldwide campaign to eliminate traffic fatalities and severe injuries. It views traffic fatalities not as accidents but as a systemic issue and develops transportation policy which prioritizes safety. In particular, Vision Zero focuses on speed-related death and injury. Studies have shown that a small increase in speed dramatically reduces the chances of survival in a crash, especially between a vehicle and bicyclist or pedestrian. This campaign has gained traction internationally, including at the federal, state, and regional level.

As part of the Vision Zero effort, the California Legislature passed AB 2363 in 2018, which called for a Zero Traffic Fatalities Task Force to study the issue and make recommendations. This Task Force was convened by CalSTA in March 2019 and released a Report of Findings in January 2020 (Attachment 1). The report focuses especially on the role of speed in traffic fatalities and proposes way to offer more flexibility in speed limit setting, rather than relying only on the 85$^{th}$ percentile method.

AB 43 and AB 550 are based on some of the policy proposals and reasoning set forth in the report (see Attachment 1, pages 54-58 and 63-65). On April 22, 2021, the Transportation Commission unanimously recommended that the City Council adopt resolutions in support of both bills.

## DISCUSSION

AB 43

AB 43 would give cities more flexibility to set speed limits that prioritize safety.

The bill would *require* local authorities to

- Consider the safety of bicyclists and pedestrians, with particular attention to vulnerable groups including children, seniors, people with disabilities, users of personal assistive mobility devices and unhoused populations when conducting an engineering and traffic survey

It would also *allow* local authorities to:

- Maintain the current or prior speed limit of a highway if there have not been any significant design changes to it.
- Reduce the speed limit by 5 mph on sections of highway with high concentrations of fatalities and serious injury or near a high concentration of bicyclists and pedestrians, especially from vulnerable groups.
- Establish a *prima facie* speed limit of 20 or 15 mph on any street
- Establish a school zone on highways with up to 35 mph speed limits and four traffic lanes (changed from 30 mph and 2 lanes)
- Lower the speed limit to 25 or 20 contiguous to a business district on highways with up to 35 mph speed limits and four traffic lanes
- Round down to the nearest 5 mph increment rather than up when determining a speed limit based on the 85$^{th}$-percentile speed

The bill would also make the following changes to speed trap rules:

- Currently highway speed limits justified by a traffic and engineering survey evaluated by a registered engineer are valid for 10 years. This law would extend the validity of the survey to 14 years.
- Senior zones and business districts would be exempted

AB 550

AB 550 would allow the cities of Oakland, San Jose, San Francisco, Los Angeles, and one other Southern California city to develop Automatic Speed Enforcement (ASE) pilot programs based on guidelines set by the Secretary of Transportation.

ASE uses a radar system which detects vehicles going above a given speed and triggers a camera to take a photo of the license plate. Some systems are designed to take a picture of the driver as well. The data is then sent to a human processor who determines whether a speeding violation occurred, matches the image to the driver or owner, and mails a citation.

This technology has been in use for over 20 years and has been proven to be effective in reducing speeding and traffic fatalities. However, it has been illegal in California since 2000. The Zero Traffic Fatalities Task Force laid out some of the pros and cons of ASE in the chart below.

| Benefits of ASE | Limitations of ASE |
|---|---|
| • Frees up law enforcement resources to be used elsewhere and can serve as "force multiplier" | • Driver does not stop and may continue to speed |
| • Can operate where: 1) in-person traffic stops would be dangerous; and 2) on higher speed roadways where traffic calming devices may not be appropriate | • Limited scope of enforcement and lack of direct contact with motorists |
| • May reduce congestion from other drivers distracted by traffic stops | • Time lag between violation and penalty |
| • Ability to continuously enforce speed limit | • Challenged on several constitutional grounds, including:<br>o Rights of due process<br>o Rights of equal protection<br>o Rights of privacy |
| • Proven to be an effective countermeasure to reduce speed-related crashes and injuries | • Criticized by the public as a tool to generate revenue rather than increase safety |

All pilot programs would have to follow the requirements listed below:

- Location
  - Within 2,500 feet of schools, senior zones, parks, recreational centers, or high injury networks
  - No more than 15% of the City's streets
  - Maximum of 33 locations in San Francisco and San Jose, and 18 locations in Oakland
  - No state roads
- Public information
  - 30 day public information campaign before beginning of implementation
  - Warnings instead of violation notices for first 30 days of implementation
  - Clear signage at cameras and real time notification of a violation
  - List of program locations and enforcement hours on City website
- Confidentiality
  - City must create a policy for use of data and follow strict confidentiality rules
  - System may only take photos of the license plate and vehicle rear
  - Confidential data may only be held up to 60 days after final disposition, photos without evidence of violation may only be held for 5 days
  - No facial recognition software
- Violations
  - All violations are civil penalties, with no point on driving record
  - System trigger must be at least 11 mph over speed limit
  - $50-500 fine, depending on speed
  - Must follow detailed process for contesting tickets
  - Fee diversion program for low income populations

- End program on any street where there is not a 25% decrease in violations or 50% decrease in repeat offenders after 18 months
    - Can extend program 1 year by adding traffic calming measures
- Each City must submit a report before implementation and after 2 years, analyzing the programs impacts on traffic safety, costs, equity, and civil rights

## ANALYSIS

Most parts of AB 43 would simply create new options for Albany when choosing speed limits and in particular, allow the City to reduce speed limits in dangerous areas. The only new requirement for the City would be to consider the safety of bicyclists, pedestrians, and vulnerable groups when conduction an engineering and traffic survey.

AB 550 would not place any new requirements on the City, but would affect Albany residents if programs are implemented in San Francisco, Oakland, and San Jose. This bill could also lead to ASE becoming legal statewide, depending on the results of the pilot programs.

## SUSTAINABILITY/SOCIAL EQUITY CONSIDERATIONS

SUSTAINABILITY: Improving roadway safety for vulnerable users helps achieve active transportation goals and reduction in single-use vehicle emissions.

SOCIAL EQUITY: AB 43 would focus safety efforts specifically on vulnerable populations and make roadways more accessible for those without motor vehicles.

Automatic speed enforcement systems would lead to an increase in speeding tickets, which place a heavier burden on low-income communities. The pilot programs are also more likely to operate in communities of color, which are home to some of the most dangerous roads. AB 550 includes a variety of measures and guardrails to mitigate the impacts of the programs on these populations. Automatic enforcement systems would also decrease the need for traffic stops. People of color and especially African Americans are disproportionally stopped by law enforcement, and are also more often searched or detained during traffic stops.

## CITY COUNCIL STRATEGIC PLAN INITIATIVE

N/A

## FINANCIAL CONSIDERATIONS

N/A

## Attachments

1. Zero Traffic Fatalities Task Force Report
2. California Assembly Bill 43 Text (as of 4/20/21)
3. California Assembly Bill 550 Text (as of 5/3/21)
4. Letter of Support – AB 43
5. Letter of Support – AB 550

# CalSTA Report of Findings

## *AB 2363*
## *Zero Traffic Fatalities Task Force*

**January 2020**

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# 1.0 Executive Summary

While the overarching objective of the transportation system is to provide mobility, transportation professionals dedicate significant resources to create a system that is safe for all users. Yet transportation professionals and policy makers continue to grapple with increases in road traffic fatalities, injuries, and crashes at the local, state, national, and even global levels.

Today, the traditional notion that roads should be designed to maximize vehicle throughput is increasingly challenged as cities and counties rethink the function and purpose of their streets, the different needs of road users such as bicyclists, pedestrians, and scooter users, and the exponential dangers of excessive speed. There is clear evidence, supported by statistical analyses, that traffic fatalities and serious injuries increase with individual vehicle speed.

While roadway safety has long been the primary consideration in establishing speed limits, speeding-related fatalities continue to represent a large portion of California's total traffic fatalities. Current procedures for setting speeds limits in California rely on the 85$^{th}$ percentile methodology, an approach developed decades ago for vehicles primarily on rural roads. Although California has become highly urbanized and its roadways have changed significantly, reflecting different modes of transportation including bicycling, walking, and scooters, the method for setting speed limits has not been modified to reflect these changes. And while the current methodology allows traffic engineers to consider other factors when setting speed limits, the 85$^{th}$ percentile speed remains the primary factor used in determining posted speed limits regardless of the intended use of the street.

While the way that speed limits are calculated have remained essentially static, the population, vehicles, and street uses have evolved over time. CalSTA's vision is to transform the lives of all Californians through a safe, accessible, low-carbon, 21st-century multimodal transportation system. However, the 85$^{th}$ percentile methodology relies on driver behavior. Greater flexibility in establishing speed limits would offer agencies an expanded toolbox in order to better combat rising traffic fatalities and injuries especially for the most vulnerable roadway users.

Consistent with international trends, other U.S. states, including Oregon, Washington, and New York, are enabling their cities to lower their speed limits and are exploring alternative methods to establish speed limits based on safety goals and local context instead of the 85$^{th}$ percentile speed. California has the opportunity to evaluate how it sets speed limits and explore new approaches that prioritize safety and meet the needs of all road users. It also has the opportunity to offer agencies greater flexibility to establish lower speed limits through the revision of speed-limit-setting procedures and the expansion of special low-speed zones.

Additionally, the State can support other strategies to make its roadways safer and reduce traffic fatalities to zero. These interventions include roadway infrastructure changes through engineering, enhancing traffic safety enforcement, supporting public education and traffic safety campaigns as well as practitioner-focused education, and improving safety data to make better-informed policy and program decisions.

Pursuant to AB 2363, Zero Traffic Fatalities Task Force, CalSTA convened a statewide Task Force and conducted an academic research synthesis to identify findings and recommendations for policy consideration to reduce traffic fatalities to zero. This Report of Findings reflects the culmination of activities that CalSTA initiated in March 2019. The findings and recommendations for policy consideration begin on page 53.

**Exhibit 1-1** cross-references the topics mandated by AB 2363 with the pertinent sections of this document.

**Exhibit 1-1 – Crosswalk: AB 2363 Topics and Report of Findings**

| AB 2363 Topic | Report Sections |
|---|---|
| 1) The existing process for establishing speed limits, including a detailed discussion on where speed limits are allowed to deviate from the 85$^{th}$ percentile. | 3.0 |
| 2) Existing policies on how to reduce speeds on local streets and roads. | 3.3., 3.4, 5.0, 6.1, 7.0 |
| 3) A recommendation as to whether an alternative to the use of the 85$^{th}$ percentile as a method for determining speed limits should be considered, and if so, what alternatives should be looked at. | 5.0, 9.0 |
| 4) Engineering recommendations on how to increase vehicular, pedestrian, and bicycle safety. | 6.0, 9.0 |
| 5) Additional steps that can be taken to eliminate vehicular, pedestrian, and bicycle fatalities on the road. | 7.0, 8.0, 9.0 |
| 6) Existing reports and analyses on calculating the 85$^{th}$ percentile at the local, state, national, and international levels. | 4.0 |
| 7) Usage of the 85th percentile in urban and rural settings. | 4.2 |
| 8) How local bicycle and pedestrian plans affect the 85$^{th}$ percentile. | 4.3 |

# 2.0 Introduction and Background

## 2.1. Traffic Fatalities and Injuries, Speed, and Safety

While the overarching objective of the transportation system is to provide mobility, transportation professionals dedicate significant resources to create a system that is safe for all users. Yet transportation professionals and policy makers continue to grapple with increases in road traffic fatalities, injuries, and crashes at the local, state, national, and even global levels. According to the World Health Organization, deaths from road traffic crashes have continued to climb, reaching 1.35 million in 2016, and representing the eighth leading cause of death globally.[1]

Within the U.S. in 2017, there were 37,133 people killed in motor vehicle traffic crashes. Additionally, in the same year 2,746,000 people were injured.[2] Traffic crashes have economic costs as well, which was estimated at $242 billion nationally.[3] In California, nearly 3,600 people die each year in traffic crashes and more than 13,000 people are severely injured.[4] Collectively, these traffic crashes cost California over $53.5 billion.[5]

Many factors contribute to traffic fatalities and injuries, including speeding, distracted driving, and impaired driving. However, the relationship between speeding and traffic fatalities and injuries is an increasing subject of attention. Of the 37,133 traffic fatalities in 2017, 9,717 (26%) were involved in crashes where at least one driver was speeding. Nationwide, speeding contributes to approximately one-third of all motor vehicle fatalities. [6] It is important to note that the notation of “speeding” for the purpose of crash reporting includes vehicle speeds that are unsafe for conditions as well as in excess of the speed limit; see Section 8.2 for more information.

Recent important studies have highlighted excessive speed as a key risk factor in road traffic injuries and fatalities. According to a 2017 National Transportation Safety Board (NTSB) report, speed increases crash risk in two ways: it increases the likelihood of being involved in a crash and it increases the severity of injuries sustained by all road users in a crash.[7] While the relationship between speed and crash involvement is complex, the relationship between speed and injury severity is consistent and direct.[8] There is clear and convincing evidence, supported by statistical analyses, that crash severity increases with individual vehicle speed.[9]

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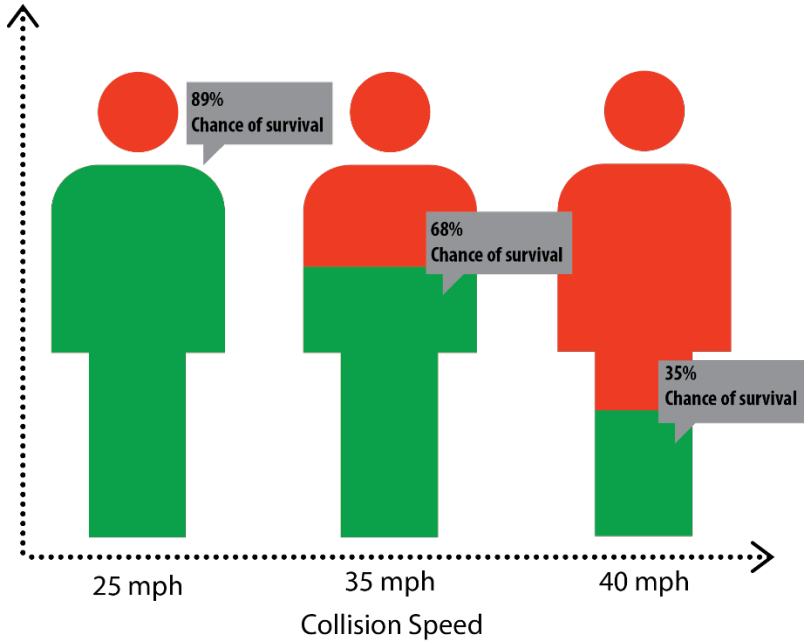
[1] World Health Organization, *Global Status Report on Road Safety 2018* (2018), vii.
[2] National Highway Traffic Safety Administration (NHTSA), *Summary of Motor Vehicle Crashes 2017 Data* (2019), 1.
[3] Ibid., 5.
[4] California Office of Traffic Safety, *California Highway Safety Plan* (2019), 5.
[5] This estimate was calculated by the University of California, Institute for Transportation Studies using Strategic Highway Safety Plan data and the National Safety Council’s *Guide to Calculating Costs of Motor-Vehicle Injuries.*
[6] National Highway Traffic Safety Administration (NHTSA), *Summary of Motor Vehicle Crashes,* 7.
[7] National Transportation Safety Board (NTSB), *Safety Study: Reducing Speed-Relating Crashes Involving Passenger Vehicles* (2017), ix.
[8] Ibid.,12.
[9] Federal Highway Administration (FHWA), *Speed Concepts: Informational Guide* (2009), 8.

The relationship between speed and injury severity is especially critical for vulnerable road users such as bicyclists and pedestrians. In the U.S., on average, a pedestrian is killed in a motor vehicle crash every 88 minutes.[10] In the event of a crash between a vehicle and a pedestrian or bicyclist, the vehicle's speed will largely determine whether the person hit will survive. **Exhibit 2-1** depicts this relationship, demonstrating that the faster a vehicle is traveling, the less likely it is that the person will survive.

**Exhibit 2-1** – **Relationship between Vehicle Speed, Crashes, and Fatalities**[11]




For the purposes of crash reporting, “speeding” is used to identify vehicles that are traveling at speeds which are: 1) unsafe for conditions or 2) exceed the speed limit. Speeds that are unsafe for conditions are based on basic speed law which is defined as driving at a speed greater than is reasonable or prudent considering weather, visibility, traffic, and roadway conditions. Because the definition of speeding includes these two different conditions, it is unknown to what degree exceeding a posted or statutory speed limit contributes to the total number of speeding-related crashes.

In addition to the impact of absolute vehicle speed on both crash severity and crash frequency, speed variance within a traffic flow is often cited as contributing to crash risk. However, the University of California Institute of Transportation Studies (UC ITS) Research Synthesis commissioned specifically for this report found that research on speed variation and safety is limited and generally inconclusive. Furthermore, there is an absence of research related to speed variation impacts on crash frequency or severity of collisions involving pedestrians and bicyclists in urban environments.

[10] NHTSA, *Summary of Motor Vehicle Crashes 2017 Data* (2017), 1.
[11] Tefft, B.C. “Impact speed and a pedestrian’s risk of severe injury or death,” *Accident Analysis & Prevention 50* (2013), 871-878.

Given the rise in traffic fatalities and injuries, the contributing role of excessive speed to those crashes, and the particular vulnerability of pedestrians, bicyclists, and scooter users, transportation professionals and policymakers in the U.S. are struggling to find solutions to make roadways safer. The issue of speed limits and speed management is an increasingly important topic among stakeholders as speeding has been repeatedly demonstrated to be a main factor in crash injury and severity.

Speeding, however, is a multi-faceted problem. There are many factors that can influence how fast drivers choose to operate their vehicles. These include the design of the roadway, the road's posted speed limit, the enforcement of speed limits, and the driver's behavior. In their efforts to get drivers to slow down, practitioners use multiple tools, including lowering speed limits, increasing enforcement, and changing the roadway infrastructure. Ultimately "any measures that can achieve reductions in average operating speeds, including lower speed limits, enhanced enforcement, and communications campaigns, as well as engineering measures, are expected to reduce fatal and injury crashes."[12]

While many consider road design and engineering the effective countermeasure to reduce operating speed, many cities, including Portland, Seattle, and New York City, have also lowered the posted speed limits on their roadways. Although some subject matter experts maintain that lowering posted speed limits does not cause drivers to slow down, recent research has indicated that this approach is effective. The UC ITS research synthesis found that research studies clearly indicate speed limit changes cause changes in drivers' speed. Moreover, "reducing vehicle speed limits will likely reduce vehicle speeds and improve safety across most road environments."[13] UC ITS concluded that "even though reducing speed limits may only have a small effect on vehicle speeds, those changes in speed result in meaningful safety improvements" especially for vulnerable road users such as bicyclist and pedestrians."[14]

Other studies support the finding that even a small change in vehicle operating speed can have large safety impacts. According to one, "a reduction of 3 mph in average operating speed on a road with a baseline average operating speed of 30 mph is expected to produce a reduction of 27% in injury crashes and 49% in fatal crashes."[15] Furthermore, since pedestrians and bicyclists are particularly vulnerable to severe injury and death when struck by higher-speed vehicles, "countermeasures aimed at reducing vehicle speeds have the potential to save lives."[16] National research results, as well as the results of the UC ITS research synthesis, support the notion, which is advocated by many California cities and local governments, that lowering speed limits will make streets safer.

In California and the rest of the U.S., establishing the speed limit is based on a long-standing methodology known as the 85$^{th}$ percentile speed. This methodology is discussed in Section 3.0 of this report. However, it is important to note that studies have shown that using the 85$^{th}$ percentile speed to establish speed limits has actually

[12] NHTSA, *Countermeasures that Work*: *A Highway Safety Countermeasure Guide for State Highway Safety Offices Ninth Edition* (2017), 3-7.
[13] University of California Institute of Transportation Studies (UC ITS), *Research Synthesis for AB 2363 Zero Traffic Fatalities Task Force* (2019), 23.
[14] Ibid., 23.
[15] NHTSA, *Countermeasures that Work*, 3-7.
[16] Ibid., 8-7.

*increased* drivers' operating speeds as an "unintended consequence."[17] This approach creates a phenomenon known as "speed creep," in which higher speed limits prompt motorists to drive faster, which in turn prompt higher speed limits.[18]

While recent research has shown that changing speed limits is an effective method for reducing vehicle operating speeds and increasing road safety, the absolute magnitude of operating speed changes from speed limit changes alone are small but meaningful. Further, there are many broader trends and contexts to consider, including the inherent trade-off between speed and safety, the safety advances presented by emerging vehicle technologies, and recent statewide developments related to safety and transportation. These trends and contexts are discussed in the next section.

## 2.2. Trends, Context, and Considerations

Historically in the U.S., roadways have been designed with vehicles in mind, as typical design standards "tend to look at streets as thoroughfares for traffic and measure their performance in terms of speed, delay, throughput and congestion."[19] The field of traffic engineering has traditionally approached road design from the perspective of moving vehicles from one point to another as quickly as possible. As highway networks expanded to accommodate increasing numbers of vehicles in the first half of the 20th century, early attempts to regulate speed for safety gave way to the "consistent focus on improving traffic service for ever-expanding motor vehicle fleets."[20] According to the FHWA, "the automobile has irrefutably altered the way in which transportation systems and the built environment are designed and constructed, often at the expense of pedestrians."[21]

Today, the traditional notion that roads should be designed to maximize vehicle throughput is increasingly challenged as cities rethink the function and purpose of their streets, the different needs of road users such as bicyclists and pedestrians, and the exponential dangers of excessive speed. Most cities today strive to make their streets more complete, less dominated by driving, and safer.[22] As NACTO puts it, "roadways once conceived singularly as arterials for traffic have been recast and retrofitted as public spaces crucial to the economic success, safety and vitality of the city."[23]

This trend away from roads designed for vehicle throughput calls attention to the contradiction between level of service and safety. Cities who wish to increase safety by reducing vehicle operating speeds must often balance these needs with the desires of its commuters who do not want an increase in traffic congestion and slower vehicle throughput. As UC ITS researchers put it, the crux of this issue is "the intuitive trade-off between speed and safety."[24]

[17] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 54.
[18] Ibid., 54.
[19] National Association of City Transportation Professionals (NACTO), *Urban Street Design Guide* (2012), 6.
[20] UC ITS, *Research Synthesis,* 36.
[21] NHTSA, *How to Develop a Pedestrian Safety Action Plan* (2009), 7.
[22] UC ITS, *Research Synthesis,* 39.
[23] NACTO, *Urban Street Design Guide*, 4.
[24] UC ITS, *Research Synthesis,* 45.

In the last several years, states across the U.S., including Washington and Oregon, are adopting speed-limit-setting laws that grant local agencies more flexibility to lower posted speeds within their jurisdictions. While these national developments in speed management are fairly recent, international speed management programs began to develop best practices in the mid-1990s that aimed to "minimize the severity of road traffic crashes through such programs as Vision Zero, Sustainable Safety, and Safe Systems."[25]

In addition to the countermeasures designed to improve safety by reducing vehicle operating speeds, it is important to note that rapidly emerging vehicle technologies will also likely impact safety. Already a considerable amount of research is beginning to describe the safety benefits of various levels of emerging technology.[26] These vehicle technologies include forward collision warning (FCW), automatic emergency braking (AEB), lane departure warning (LDW), intelligent speed adaptation (ISA), lane keeping assistance (LKA), and blind spot warning (BSW) systems.

Generally, these enhanced safety features are designed to reduce traffic crashes and fatalities and improve safety for both the vehicle occupants and non-occupants. A recently AAA research synthesis found that while such features have their limitations, "current and future vehicle safety systems have the potential to dramatically reduce the number of crashes, injuries and fatalities on our roadways," and that these systems, "if installed on all vehicles, would have had the potential to help prevent or mitigate roughly 40% of all crashes involving passenger vehicles, and 37% of all injuries and 29% of all fatalities that occurred in those crashes."[27] It will be important for transportation and traffic safety professionals to track the latest vehicle safety technologies as they continue to develop.

Within California, it is also critical to consider the work of the Zero Traffic Fatalities Task Force within the broader context of the *California Strategic Highway Safety Plan* (SHSP). The SHSP is a coordinated, data-driven safety plan that provides a comprehensive framework for reducing fatalities and serious injuries on California's public roads with a goal of zero deaths. A federal requirement, the plan guides investment decisions towards strategies and countermeasure with the most potential to save lives and prevent injuries. Spearheaded by CalSTA and its departments, over 900 safety stakeholders from across the state contributed to the original SHSP. The 2020-2024 SHSP has recently been finalized and the SHSP Implementation Plan, which identifies specific actions, is currently underway.

## 2.3. The 85th Percentile Speed – An Overview[28]

Drivers play an important role in how posted speed limits are set. Many U.S. states and California rely on a long-standing and widespread methodology known as the 85th percentile speed to establish speed limits. As its name implies, the 85th percentile speed is the velocity at which 85% of vehicles drive at or below on any given road. This approach was developed in the U.S. in the mid-20th century and is still the dominant

[25] Ibid., 50.
[26] Ibid., 69.
[27] AAA Foundation for Traffic Safety*, Potential Reductions in Crashes, Injuries, and Deaths from Large-Scale Deployment of Advanced Driver Assistance Systems Research Brief* (2018), 9.
[28] This summary is drawn from numerous sources including: UC ITS's *Research Synthesis* (2019); FHWA's *Speed Concepts: Informational Guide* (2009)*;* FHWA's *Methods and Practices for Setting Speed Limits* (2012*)*; and California Department of Transportation's *(*Caltrans*) California Manual for Setting Speed Limits* (2014*).*

factor in how speed limits are set in the U.S today. The 85th percentile methodology assumes that most drivers will drive at a safe and reasonable speed based on the road conditions. It is also based on the idea that speed limits are safest when they conform to the natural speed driven by most drivers and that uniform vehicle speeds increase safety and reduce the risks for crashes.

Using the 85th percentile methodology to establish a posted speed limit is a two-step process. First, traffic engineers calculate the 85th percentile speed for a given roadway by conducting an engineering and traffic survey, also known as a speed or traffic survey. Engineers select a roadway and measure the speed of free-flowing traffic with radar or lidar guns. The survey results are then analyzed, yielding the speed at which 85% of the drivers are traveling at or below.

However, the 85th percentile speed does not automatically become the speed limit that is posted for that road. In the second step, engineers can apply rounding and adjustment allowances based on a variety of other conditions, resulting in a speed limit that deviates from the 85th percentile speed. California law places parameters and limits on these deviations. When using engineering and traffic surveys to post lower speed limits, the maximum amount that a posted speed limit can deviate from the 85th percentile speed is 7 mph. Ultimately, the speed at which 85% of road users drive at or below exercises a profound influence on the final speed limit that is posted for the road. UC ITS refers to this reliance on driver behavior as “crowdsourcing” speed limits.[29]

Section 4.0 contains a detailed analysis of the 85th percentile speed methodology including its history, limitations, and usage in urban and rural settings.

## 2.4. AB 2363 – Zero Traffic Fatalities Task Force

AB 2363 (Friedman – Chapter 650, Statutes of 2018) directed the Secretary of Transportation to establish and convene the Zero Traffic Fatalities Task Force. Based on the Task Force’s efforts, the Secretary shall prepare and submit a report of findings to the Legislature by January 1, 2020 on the following issues:

1) The existing process for establishing speed limits, including a detailed discussion on where speed limits are allowed to deviate from the 85th percentile.
2) Existing policies on how to reduce speeds on local streets and roads.
3) A recommendation as to whether an alternative to the use of the 85th percentile as a method for determining speed limits should be considered, and if so, what alternatives should be looked at.
4) Engineering recommendations on how to increase vehicular, pedestrian, and bicycle safety.
5) Additional steps that can be taken to eliminate vehicular, pedestrian, and bicycle fatalities on the road.
6) Existing reports and analyses on calculating the 85th percentile at the local, state, national, and international levels.
7) Usage of the 85th percentile in urban and rural settings.
8) How local bicycle and pedestrian plans affect the 85th percentile.

[29] UC ITS, *Research Synthesis,* 27.

## 2.5. Zero Traffic Fatalities Task Force and Advisory Group Members

CalSTA established and first convened the Task Force on June 25, 2019, which included representatives from all of the mandated organizations as well as other interested stakeholders. A list of Task Force members and their organization is presented in **Exhibit 2-2.** In addition, CalSTA formed an Advisory Group designed to provide subject matter expertise to the Task Force. A list of Advisory Group members and their organization is presented in **Exhibit 2-3**.

**Exhibit 2-2 – Task Force Members**

| Agency/Organization | Task Force Member |
|---|---|
| **AAA Southern California** | Hamid Bahadori, Manager, Transportation Policy and Programs |
| **Amalgamated Transit Union and Teamsters** | Shane Gusman, Representative |
| **American Association of Retired** | Bob Prath, Executive and National Policy Council member |
| **California Bicycle Coalition (CalBike)** | Dave Snyder,<br>Executive Director |
| **California Highway Patrol** | James Epperson, Chief |
| **California Walks (Cal Walks)** | Tony Dang, Executive Director |
| **City of Fresno** | Jill Gormley, |
| **City of Glendale** | Carl A. Povilaitis,<br>Chief of Police |
| **City of Palm Springs** | Lisa Middleton, Councilmember |
| **City of Sacramento** | Jennifer Donlon Wyant,<br>Transportation Planning Manager |
| **City of San Jose** | Laura Wells, |
| **Department of Public Health** | Jeffery Rosenhall, Chief, Policy and Partnership Development Unit |
| **Department of Transportation** | Jeanie Ward-Waller, District 2 Director (Acting) |
| **Electronic Frontier Foundation** | Lee Tien, Senior Staff Attorney |
| **Los Angeles Department of** | Seleta Reynolds, General Manager |
| **NACTO/California City Transportation Initiative** | Jenny O'Connell, Program Manager |
| **Office of Traffic Safety** | Barbara Rooney, Director |
| **Rural Counties Task Force** | Dan Landon, Executive Director Nevada County Transportation Commission |
| **San Francisco Municipal** | Kate Breen, |
| **Southern California Association of Governments** | Meghan Sahli-Wells,<br>Regional Council Member & Culver City Mayor |
| **Safer Streets Los Angeles** | Jay Beeber, Founder |
| **UC Berkeley – Institute of Transportation Studies** | Offer Grembek, Co-Director, UCB Safe Transportation Research and Education Center |
| **Vision Zero Network** | Leah Shahum, Founder and Director |
| **Subject Matter Expert** | Rock E. Miller, Consultant – Traffic Engineering Expert Witness, Safety, and Urban Bikeways implementation |

**Exhibit 2-3 – Advisory Group Members**

| Agency/Organization | Advisory Group Member |
|---|---|
| **City and County of San Francisco, Department of Public Health** | Megan Wier,<br>Director of Program on Health, Equity and Sustainability |
| **Arup** | Megan Gee, Civil and Environmental Engineer; Senior Planner |
| **City of Long Beach, Public Works** | Luke Klipp,<br>Special Projects Officer |
| **City of Santa Clarita** | Gus Pivetti,<br>City Traffic Engineer |
| **City of Santa Monica, Planning and Community Development Department** | Andrew Maximous,<br>Principal Traffic Engineer |
| **County of Los Angeles, Public Works** | Mathew Dubiel,<br>Senior Civil Engineer |
| **County of Los Angeles, Department of Public Health** | Jean Armbruster,<br>Director, PLACE Program |
| **San Francisco Metropolitan Transportation Commission** | Shruti Hari,<br>Principal, Safety & Asset Management |
| **Walk San Francisco** | Jodie Medeiros,<br>Executive Director |
| **Remix** | Rachel Zack, Policy Strategist |
| **Streetlight Data, Inc.** | Sean Co, Director of Special Projects |
| **Subject Matter Expert** | Henry Coles III, Retired Mechanical Engineer |
| **Subject Matter Expert** | Ribeka Toda, Traffic Safety Consultant |

## 2.6. Report of Findings – Approach and Timeline

The findings and recommendations for policy consideration in this Report of Findings are based on numerous sources including Task Force meetings, Advisory Group meetings, a University of California academic research synthesis, market research, and results from multiple surveys completed by the Task Force and the Advisory Group.

**Exhibit 2-4** depicts the high-level approach that guided this effort and **Exhibit 2-5** depicts the high-level timeline and corresponding activities.

**Exhibit 2-4 – High-Level Approach**

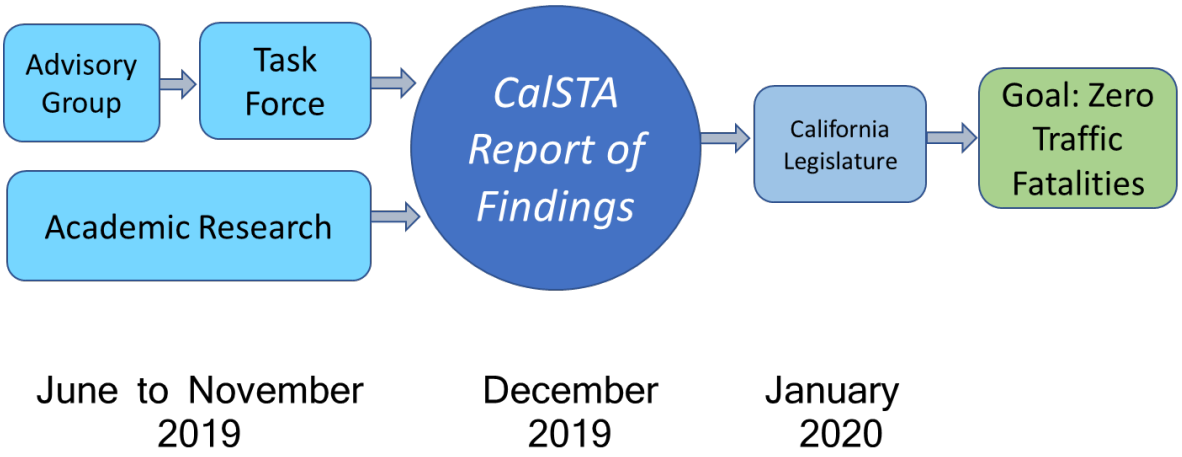



**Exhibit 2-5 – Timeline**

| Timeframe | Activity |
|---|---|
| June 2019 | Conduct Task Force Survey |
| June 25, 2019 | Convene Task Force Meeting #1 |
| July 2019 | Conduct Advisory Group Survey |
| July 2019 | Initiate Academic Research |
| August 21, 2019 | Convene Task Force Meeting #2 |
| September 12, 2019 | Convene Advisory Group Focus Group |
| October 1, 2019 | Conduct Market Research Webinar |
| October 22, 2019 | Convene Task Force Meeting #3 |
| October 2019 | Conclude Academic Research |
| November 2019 | • Develop Report<br>• Distribute Draft Findings and Recommendations for Policy Consideration to Task Force for Comment |
| December 2019 | Finalize Report |
| January 2020 | Submit Report to Legislature |

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# 3.0 Establishing and Adjusting Speed Limits in California

This section describes how speed limits are established in California. It covers the authority to set types, types of speed limits, establishing and deviating from speed limits, and the role of engineering and traffic surveys in establishing speed limits.

## 3.1. Authority to Establish Speed Limits

Establishing speed limits on California roadways is a responsibility shared by different state and local agencies. The California Department of Transportation (Caltrans) has authority to establish speed limits on the State Highway System, but roadways outside of the State Highway System generally fall under the responsibility of the respective city or county. Allowing cities or counties to establish speed limits on the roadways under their jurisdiction acknowledges the importance of recognizing unique local conditions when setting speeds. The fact that multiple agencies are involved in establishing speed limits contributes to the complexity of establishing standards while also respecting unique local conditions. Ultimately, "speed management and the setting of appropriate speed limits requires a coordinated effort among State and local highway safety offices, engineering offices, and law enforcement agencies."[30]

In California, the basis, principles, and methodology for establishing speed limits are outlined in several source documents. The California Vehicle Code (CVC) contains statutes adopted by the California Legislature relating to the operation, ownership, and registration of vehicles in California, and changes to it are made through state legislation. Caltrans publishes and maintains technical documents used to implement the Vehicle Code. These include the *California Manual for Setting Speed* and the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). When local agencies set speed limits, they must follow specific speed-procedures established by Caltrans in these documents. At a high level, the procedures involve justifying and documenting the chosen speed limit using an engineering and traffic survey. Engineering and traffic surveys are discussed in further detail in Section 3.4.

In addition to roadways under the jurisdiction of Caltrans or local agencies, some roads are overseen by tribal governments, National Parks, and private entities, who are advised (but not mandated) to follow the CA MUTCD setting speeds.

## 3.2. Types of Speed Limits

California state law establishes speed limits on all roads in the state according to the CVC. Speed limits defined by state law are called statutory limits. There are different statutory limits depending upon the type of road being limited—such as city streets, county roads, or state highways—and on the zone being limited, such as school zones, business districts, and residential areas. Certain road types and zones have default speed limits that are in effect even if no speed limit sign is posted. Codified in the CVC, these default speed limits are called *prima facie* speed limits.

[30] NHTSA, *Countermeasures that Work*, 3-8.

**Exhibit 3-1** summarizes the common types of speed limits that pertain to this report.

**Exhibit 3-1 – Common Types of Speed Limits**

| Type | Definition |
|---|---|
| **Statutory** | Statutory speed limits are established by the State legislature. They are enforceable by law even if the speed limit sign is not posted. |
| **Prima Facie** | Prima facie speed limits are a type of statutory speed limit that apply in designated special areas or zones, including school zones, business districts, and residential areas. They are enforceable by law even if the speed limit sign is not posted. |
| **Posted** | Posted speed limits can be the same as Statutory speed limits, or they can be different limits established by a local authority on the basis of an engineering and traffic survey. They must be posted in order to be enforceable. |
| **Absolute** | Absolute speed limits are statutory speed limits. They designate an upper limit beyond which any speed is illegal. |

## 3.3. Establishing and Deviating from Speed Limits

While the CVC establishes speed limits for the state, it also allows local agencies to establish specific speed limits for streets within their boundaries. When agencies want to deviate from the statutory limits by either raising or lowering them, they adjust these limits according to procedures and parameters established by Caltrans.

**Exhibit 3-2** depicts California's statutory speed limits and the amount that agencies are permitted to adjust them. Crucially, in order to adjust speed limits, agencies must follow legally-mandated procedures which usually entail conducting engineering and traffic surveys, which are discussed in Section 3.4.

**Exhibit 3-2 – Speed Limits and Adjustment Authority on Road Types and Zones**

| Example | Road Types | Speed Limit (MPH) | Adjustment Authority |
|---|---|---|---|
|  | Highways | **65** | **Below 65** |
|  | Freeways | **65** | **70**** |
|  | Two-lane undivided roadways | **55** | **Below and over 55** |
|   | Uncontrolled railway crossing* | **15** | **None** |

| Example | Road Types | Speed Limit (MPH) | Adjustment Authority |
|---|---|---|---|
|  | Uncontrolled intersection* | **15** | **None** |
|  | Alley* | **15** | **None** |
| **Example** | **Road Zones** | **Speed Limit (MPH)** | **Adjustment Authority** |
|  | Business districts without other posted speed limits*# | **25** | **15** or **20** |

| Example | Road Zones | Speed Limit (MPH) | Adjustment Authority |
|---|---|---|---|
|  | Residential districts without other posted speed limits*# | **25** | **15** or **20** |

| Example | Road Zones | Speed Limit (MPH) | Local Adjustment Authority |
|---|---|---|---|
|  | School zones* | **25** | **15** or **20** |
|  | Areas immediately around senior centers*# | **25** | **15** or **20** |

**These speed limits are called prima facie limits and they do not need to be physically posted (via a sign) in order to be enforceable.*

*# Non-State-highway only*

***Raising speed limits on State freeways to 70 MPH can be accomplished without an E&TS, based on geometric criteria.*

*Image Sources:*

1. Highways
   https://www.sustainablehighways.dot.gov/FHWA_Sustainability_Activities_June2014.aspx
2. Freeways
   *Caltrans photo database*
3. Two-lane undivided roadway
   http://www.gribblenation.org/2017/06/california-state-route-89-lassen.html
4. Uncontrolled railway crossing
   https://en.wikipedia.org/wiki/File:Railroad_Junction2004_x.JPG
5. Uncontrolled intersection
   https://safety.fhwa.dot.gov/intersection/other_topics/fhwasa08008/ue4_stop_bar.pdf
6. Alley
   https://www.fhwa.dot.gov/publications/publicroads/10mayjun/05.cfm
7. Business districts
   https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/ch3.cfm
8. Residential districts
   https://safety.fhwa.dot.gov/uslimits/documents/appendix-l-user-guide.pdf
9. School zones
   https://www.kashlawpc.com/school-zone-safety-things-to-keep-in-mind-when-driving-through/
10. Senior centers
    https://www.cityofnapa.org/Facilities/Facility/Details/Senior-Activity-Center-18

## 3.4. Engineering and Traffic Surveys – An Overview

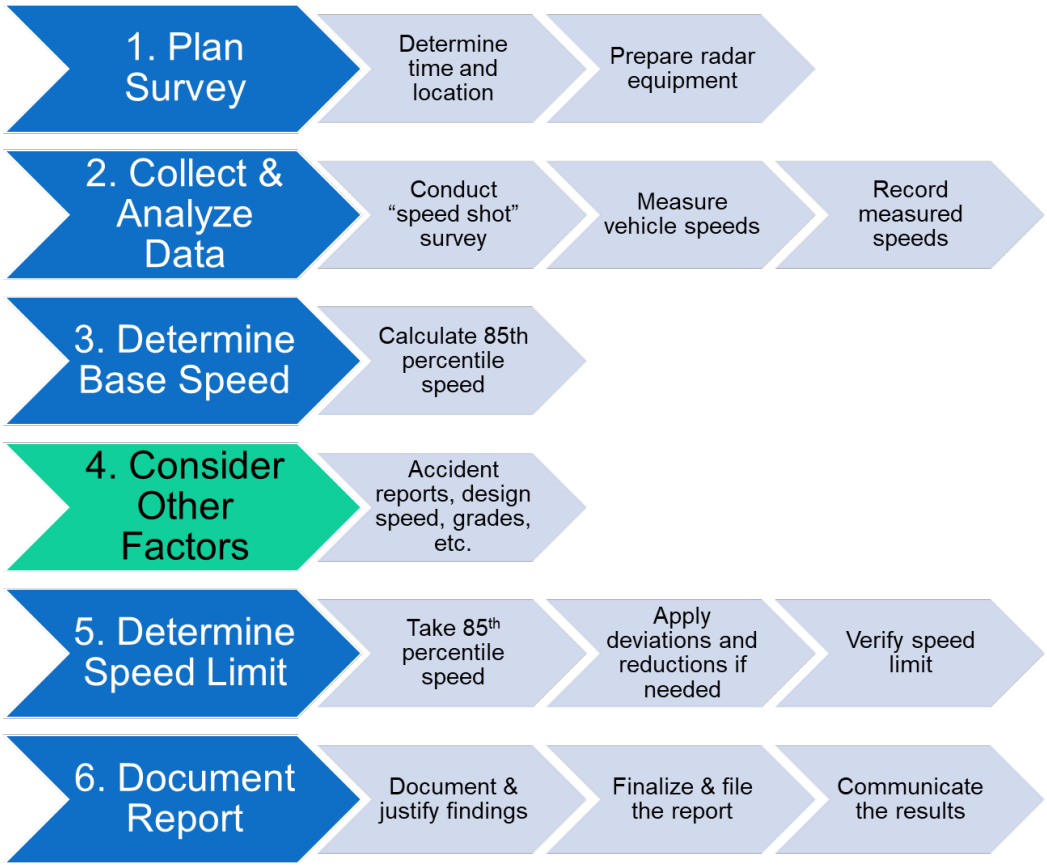
Transportation agencies are not permitted to adjust speed limits on their streets at their own discretion. Specific rules and procedures established by the state must be followed in order to establish a new speed limit. The most important of these rules is the requirement to conduct an engineering and traffic survey, also known as speed surveys or traffic surveys. Traffic surveys must be completed for the posted speed limit to be enforceable. As Caltrans notes in its *California Manual for Setting Speed Limits*, "the setting of speed limits requires a rational and defensible procedure to maintain the confidence of the public and legal systems."[31] The survey procedures encourage agencies to follow a structured, methodologically sound approach that will result in a reasonable speed limit.

Engineering and traffic surveys are the basis for the "engineering approach" to setting speed limits, which is the most commonly used approach to setting speed limits in the U.S. The approach follows a two-step process in which an engineer measures the 85$^{th}$ percentile speed of vehicles and subsequently adjusts it based on a variety of factors to arrive at a speed limit. While there is no universal process for conducting these surveys, the FHWA provides guidance related to the process and most states have also developed their own procedures.

Section 627 of the CVC defines engineering and traffic surveys. The detailed procedures for conducting these surveys in California are described in the *California Manual for Setting Speed Limits*. **Exhibit 3-3** visualizes the main procedural steps at a high level.

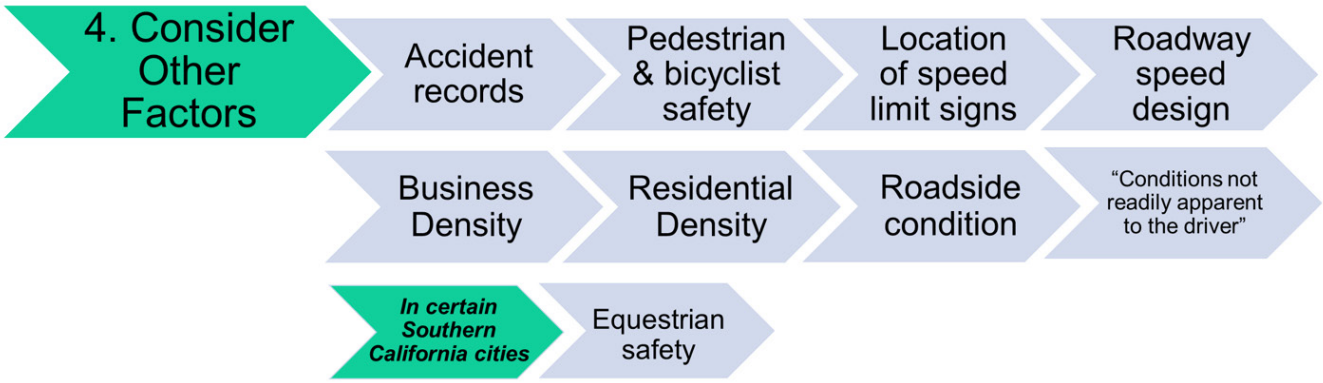
[31] Caltrans, *2014 California Manual for Setting Speed Limits*, 13.

**Exhibit 3-3 – Conducting an Engineering and Traffic Survey: Main Components**




In Step 4, traffic engineers are allowed to "consider other factors" in addition to the 85th percentile speed of vehicles. The *California Manual for Setting Speed Limits* and the CVC specifically identifies the factors listed in **Exhibit 3-4.**

**Exhibit 3-4 – Other Factors that Impact Establishing Speed Limits**



The premise of Step 4, in which engineers may consider other factors including "conditions not readily apparent to the driver," is that it enables agencies to consider unique local conditions when determining deviations to the 85th percentile speed. Some cities have also been granted special provisions in the CVC that allow them to consider additional factors. For example, in 2019 four southern California cities were legally authorized to consider equestrian safety when conducting an engineering and traffic survey on designated streets due to the unique circumstances of certain areas with equestrian trails.[32]

According to current law, a traffic survey is valid for 5 years, upon which it must be renewed. However, under certain conditions, traffic surveys may be extended to 7 or 10 years.[33]

## 3.5. Adjusting Speed Limits from the 85th Percentile Speed

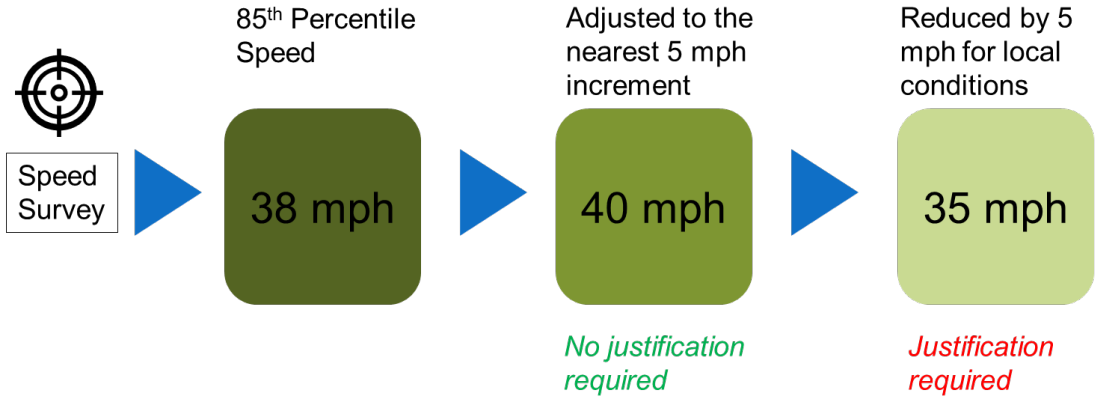
Though agencies can adjust the 85th percentile base speed limit, the adjustments themselves are limited. In order for posted speed limits to be enforceable by law enforcement and the court system, agencies can only deviate so much from the speed limits established by the State.

According to the *California Manual for Setting Speed Limits,* speed limits are to be posted at the nearest 5 mph increment of the 85th percentile speed. For example, if the 85th percentile speed was taken to be 33 mph, then the speed limit would be established at 35 mph because it's the closest 5 mph increment to the 33 mph.

Under some circumstances, practitioners can deviate from the nearest 5 mph increment when posting the speed limit. Specifically, the posted speed limit may be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed. The following two scenarios, drawn from the *2014 California Manual for Setting Speed Limits*, explain the application of the 5 mph reduction.

**Scenario 1** graphically depicts the technical rounding process when the nearest 5 mph increment is *greater than* the 85th percentile speed. In this scenario, the final speed limit differs from the 85th percentile speed by only *3 mph.*

**Scenario 1: Getting from 38 mph to 35 mph**

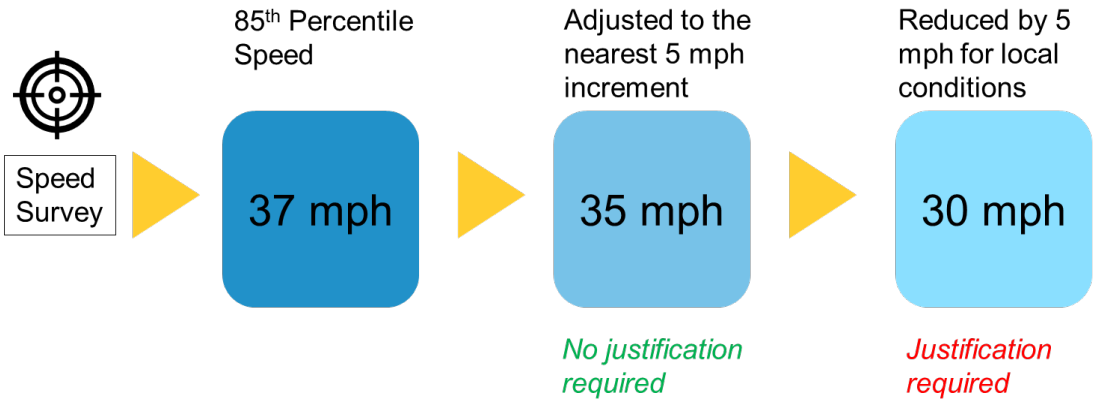



In Scenario 1 the final difference between the speed limit and the 85th percentile speed is only 3 mph. However, the rounding process can produce greater differences.

[32] California Vehicle Code (CVC) 22353.
[33] CVC 40802.

**Scenario 2** demonstrates how an 85th percentile speed of 37 mph can result in a 30 mph speed limit – with a total deviation of *7 mph.* This example describes when the nearest 5 mph of the 85th percentile is *less than* the 85th percentile speed.

**Scenario 2: Getting from 37 mph to 30 mph**




In Scenario 2, the rounding process results in a speed limit (30 mph) that is 7 mph lower from the 85th percentile speed (37 mph). Thus, ***7 mph is the maximum amount that a speed limit can be reduced from the 85th percentile speed.***

Further, the speed limit can be posted at the 5 mph increment *below* the 85th percentile even if mathematical rounding would require the speed limit to be posted *above* the 85th percentile. If this option is used, the 5 mph reduction cannot be applied. For example, if the 85th percentile is 34 mph, the speed limit can be posted at 30 mph instead of the closest 5mph increment which is 35 mph. However, the 30 mph cannot be rounded further.

As these scenarios and examples demonstrate, the cornerstone of establishing speed limits entails determining the 85th percentile speed via an engineering and traffic survey and then adjusting it through a rounding process. While adjustments are permitted, the 85th percentile speed of motor vehicles is the most prominent factor in determining a speed limit. As Caltrans notes, "speed limits set by E&TS are normally set near the 85th percentile speed."[34] Similarly, the Federal Highway Administration notes that "the typical procedure is to set the speed limit at or near the 85th percentile speed."[35]

There are several scenarios in which it is not necessary for agencies to conduct traffic surveys in order to post a lower speed limit. For example, in 25-mph prima facie school zones, agencies have the option to lower the speed limit from to 20 mph or 15 mph without conducting a traffic survey if certain criteria are met. Agencies may opt to either conduct a traffic survey to support the lower limit, or they may pass a local ordinance provided that the roadway design meets certain conditions stipulated in the CVC.

Despite this scenario, establishing speed limits using the 85th percentile as part of the engineering and traffic survey process remains the most common way to establish speed limits on California's roadways.

[34] Caltrans, *California Manual on Setting Speed Limits*, 14.
[35] FHWA, *Methods and Practices for Setting Speed Limits,* 12.

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# 4.0 The 85th Percentile Speed Methodology – An Analysis

This section provides a detailed analysis of the 85th percentile speed methodology, including its history, evolution, and limitations; its usage in urban and rural settings; and its relationship to local bicycle and pedestrian plans.

## 4.1. History, Evolution, and Limitations of the Idea

UC ITS researchers traced the origins of the 85th percentile concept to influential studies in the mid-20th-century, but noted that these studies supported the conventional wisdom at the time and were "widely accepted with little scrutiny."[36] Over time, the 85th percentile speed came to be associated with a collection of qualitative concepts "deeply rooted in government and law,"[37] which are depicted in **Exhibit 4-1**. Today, the modern rationale for the 85th percentile speed remains codified in traffic manuals, including the national *Manual on Uniform Traffic Control Devices,* as well as California's manual. The *California Manual for Setting Speed Limits* maintains that "speed limits established on the basis of the 85th percentile conform to the consensus of motorists of the reasonable and prudent speed,"[38] a practice that UC ITS refers to a crowdsourcing speed limit. Most other countries, including Europe and Australia, do not use the 85th percentile speed to set speed limits.

**Exhibit 4-1 – The 85th Percentile Methodology: Fundamental Concepts**

| Key Concepts | |
|---|---|
| • The majority of drivers will naturally drive at safe, reasonable speeds. | • Speed limits are safest when they conform to the speed driven by most drivers. |
| • The norms of a reasonable person should be considered legal. | • Uniform vehicle speeds increase safety and reduce the risks for crashes. |

These concepts are coming under increasing scrutiny in response to rising traffic fatalities. The 2017 NTSB *Safety Study* found that there is no strong evidence that traveling at the 85th percentile speed results in safer outcomes and recommended that the FHWA "remove the guidance that speed limits in speed zones should be within 5 mph of the 85th percentile speed."[39] UC ITS similarly analyzed the limitations of the 85th percentile methodology and concluded "after eight decades, vehicles are different, our aspirations for the uses of streets are different, and our safety goals are more ambitious."[40]

[36] UC ITS, *Research Synthesis,* 39.
[37] FHWA, *Methods and Practices for Setting Speed Limits,* 14.
[38] Caltrans, *California Manual for Setting Speed Limits*, 40.
[39] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 54-57.
[40] UC ITS, *Research Synthesis,* 40.

**Exhibit 4-2** summarizes the major limitations of the 85th percentile methodology according to Task Force and Advisory Group members, the UC ITS research synthesis, and leading national research, including studies issued by the NTSB and FHWA.

**Exhibit 4-2 – The 85th Percentile Methodology: Major Limitations**

| Major Limitations | |
|---|---|
| • Not supported by scientific research | • Privileges driver behavior |
| • Based on a set of historical assumptions | • Does not require consideration of other road users such as pedestrians and bicyclists |
| • Same methodology applied to different roadway types | • Assumes drivers will choose reasonable and prudent speeds |
| | • Can lead to speed creep |

Research results and the majority of Task Force and Advisory Group members support the fact that lowering speed limits can produce meaningful safety improvements. However, a minority Task Force perspective maintains that the only way to improve roadway safety is through engineering and design countermeasures, and that policymakers should not be overly focused on reducing vehicle operating speeds by lowering speed limits. Moreover, there are risks associated with lowering speed limits too far, as the National Cooperative Highway Research Program Project notes: "artificially low speed limits can lead to poor compliance as well as large variations in speed within the traffic stream. Increased speed variance can also create more conflicts and passing maneuvers."[41]

## 4.2. Using the 85th Percentile in Urban and Rural Settings

The 85th percentile methodology was established based on research primarily conducted on rural roads. Rural roads are generally long stretches of uninterrupted roadway, while urban areas are generally characterized by frequent interactions between cars and vulnerable users of the roadway, including pedestrians and bicyclists.

Calculating the 85th percentile speed via engineering and traffic surveys is the same regardless of roadway type. Given the differences between urban and rural settings, applying the same methodology to different road types creates specific limitations, which are discussed below.

### *4.2.1. Limitations of the 85th Percentile for Highways in Rural Settings*

One of the primary limitations of using the 85th percentile in rural highway settings is the cyclical phenomenon of speed creep. As recent research has indicated, raising speed limits to match the 85th percentile speed of vehicles leads to higher operating speeds, which can then contribute to a higher 85th percentile speed.[42] Research has shown that over time, vehicle operating speeds continue to increase even if the road and vehicle

[41] National Cooperative Highway Research Program Project 3-67, *Expert System for Recommending Speed Limits in Speed Zones* (2006), 1.
[42] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* x.

conditions remain the same, demonstrating that the posted speed limit has the most impact on a driver's travel speed.[43]

### 4.2.2. Limitations of the 85th Percentile for Local Streets in Urban Settings

On local streets in urban environments, speed creep is also a limitation associated with the 85th percentile approach. Studies have demonstrated that "spatial" speed creep on local roads can be caused by high speeds on connecting highways. Higher speed limits on highways can thus have a "carry-over" effect on local roads.

Additionally, many limitations of the 85th percentile approach specific to local streets are behavioral. These behavioral limitations expose the difficulties associated with basing speed limits on driver's habits. Driver behavior lies at the root of the 85th percentile methodology, which assumes that most drivers will naturally choose to drive at a safe and reasonable speed. Yet UC ITS researchers contend that drivers tend to underestimate their speed by 10-30% and that drivers have "limited capacity" to choose a safe speed.[44] When drivers exceed the posted speed limit, one of the key reasons is their belief that excess speed does not threaten safety. Additionally, poor weather conditions and the lack of strong visual cues on local roads (such as guardrails or trees) can further cause drivers to underestimate their speeds.

These research results indicate that drivers are not good at "naturally" selecting safe speeds and suggests that it is not prudent to use driving habits as a basis for establishing speed limits. Ultimately, "the conjecture that safe speed limits should be determined based on the actual driving habits of drivers cannot be used to establish safe travel speeds on local streets."[45]

## 4.3. Effect of Bicycle and Pedestrian Plans on the 85th Percentile

Increasing numbers of California cities and counties are creating bicycle and pedestrian transportation plans. These local planning documents, which are defined in the *California Transportation Commission's Active Transportation Program Guidelines*, as the first step to either initiate or continue with programs, policies, and projects that provide safe and efficient travel modes for bicyclists and pedestrians. In 2017, Caltrans released the first-ever statewide bicycle and pedestrian plan called *Toward an Active California* which outlines the policies and measures that the State and local governments can take to increase bicycling and walking.

However, local government bicycle and pedestrian plans do not impact posted speed limits, which is primarily determined by the 85th percentile speed of motor vehicles. When calculating the 85th percentile speed of vehicles, there is no existing mandate to consider where future bicycle and pedestrian facilities are planned or in progress.

[43] UC ITS, *Research Synthesis,* 46.
[44] Ibid., 46-47.
[45] Ibid., 47.

However, if a city implements bicycle and pedestrian elements from its plan that changes roadway infrastructure, the project might affect the 85th percentile speed of vehicles. For instance, if a local jurisdiction implemented certain traffic calming interventions such as speed bumps, it could cause drivers to slow down which then impacts the 85th percentile speed of vehicles. Studies in Denmark and the United States have shown that the installation of a single speed bump reduced average speeds by 2.7 to 3.4 mph.[46]

[46] UC ITS, *Research Synthesis,* 57.

# 5.0 Alternatives to the 85th Percentile – Local, State, National, and International Trends in Setting Speed Limits

This section describes alternatives to the 85th percentile methodology to setting speed limits. It explores recent changes in setting speeds limits at the local, state, national, and international levels.

## 5.1. Summary

AB 2363 mandates that this report include "existing reports and analyses on calculating the 85th percentile at the local, state, national, and international levels." While data collection methods and procedures may differ slightly, the 85th percentile speed is a well-documented methodology that does not significantly vary in its calculation at the local, state, national, and international levels. However, there are entirely different approaches to establishing posted speed limits that do not take the 85th percentile speed into account. **Exhibit 5-1** provides a summary of the different approaches to setting speed limits.

**Exhibit 5-1 – Approaches to Setting Speed Limits**[47]

| Approach | Description | Jurisdictions |
|---|---|---|
| **Engineering (or Operating)** | A two-set process where a base speed limit is set according to the 85th percentile speed and adjusted slightly according to road and traffic conditions, crash history, and other factors. | United States |
| **Safe System** | Speed limits are set according to the crash types that are likely to occur, the impact forces that result, and the tolerance of the human body to withstand these forces. | Sweden, Netherlands, Australia |
| **Expert System** | Speed limits are set by a computer program that uses knowledge and inference procedures that simulate the judgement and behavior of speed limit experts. In the U.S., USLIMITS2 is a web-based expert speed zoning software advisor adapted from similar expert systems used in Australia. | United States, Australia |

[47] FHWA, *Methods and Practices for Setting Speed Limits*, 24. (Adapted).

| Approach | Description | Jurisdictions |
|---|---|---|
| **Engineering (or Road-Risk)** | Speed limit is determined by the risks associated with the design of the road. The speed limit is based on the function of the road and/or the adjacent land use and then adjusted based on road and traffic conditions and crash history. | Canada, New Zealand |
| **Optimization / Optimal** | Setting speed limits to minimize the total societal costs of transport. Travel time, vehicle operating costs, road crashes, traffic noise, and air pollution are considered in the determination of optimal speed limits. | Conceptual approach that has not been adopted by any road authority |

## 5.2. International Trends

Many countries including the Netherlands, Sweden, and Australia approach setting speed limits from a different conceptual framework. Instead of establishing speed limits based on driver operating behavior, many countries begin with the premise that the human body is vulnerable and unlikely to survive impact speeds more than 40 mph. According to UC ITS, based on this understanding, other countries minimize the severity of road traffic crashes through programs such as Vision Zero, Sustainable Safety, and Safe Systems.[48] Although these programs have different names in different countries, they share common principles and strategies with an emphasis on safety. The 2017 NTSB *Safety Study* presents a summary description of the safe systems approach:

> *The safe system approach to speed limits differs from the traditional view that drivers choose reasonable and safe speeds. In the safe system approach, speed limits are set according to the likely crash types, the resulting impact forces, and the human body's ability to withstand these forces. […] It allows for human errors (that is, accepting humans will make mistakes) and acknowledges that humans are physically vulnerable (that is, physical tolerance to impact is limited). Therefore, in this approach, speed limits are set to minimize death and serious injury as a consequence of a crash."*[49]

Sections 5.2.1, 5.2.2, and 5.2.3 present international case studies of this different approach to establishing speed limits. These case studies are adapted from the UC ITS Research Synthesis.

### *5.2.1 Netherlands*

The Netherlands adopted "Sustainable Safety" as a vision in 1992. This paradigm shift used safety as a design principle for the road traffic system and emphasized how to prevent human errors to the extent possible and how to minimize the severity of a crash. Specifically, the Netherlands:

[48] UC ITS, *Research Synthesis,* 49.
[49] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 28.

- Expanded 30 km/h (18.6 mph) zones from 15.5 percent of their urban residential streets to 54.5 percent by adopting a “low-cost” approach that phased the introduction of the lower speed limits. In the short-term, communities posted the new speed limits with some support of traffic calming devices with the goal to further transform the area through additional engineering features.
- Introduced 60 km/h (37.3 mph) zones, down from 80 km/h (49.7 mph), for rural access roads that met specific criteria warranting reduced speeds to improve safety for vulnerable users and/or located in transition zones.

### 5.2.2 Sweden

Sweden adopted the Vision Zero road safety philosophy in 1997 with the long-term goal that no person should be killed or seriously injured in road traffic. Their system relies on two principles: 1) human life and health are the top priority when designing roads; and 2) road traffic safety is a shared responsibility between all road users and system designers. Under the safe system approach in Sweden, speed limits were reduced to prioritize the highest levels of safety.

Sweden designed their road system based on what the human body can endure in both a vehicle-vehicle and vehicle-unprotected user (e.g., pedestrian, bicyclist) crash scenario. As part of the safe system approach, Sweden introduced median barriers to prevent head-on crashes, safer roadsides, traffic calming, roundabouts, separation, and reduced speed limits.

Sweden made a distinction between urban and rural roads, resulting in the implementation of parallel efforts. They reviewed their national rural road network and established guidelines for each road type classification balancing traffic safety, environment, and mobility and accounting for regional differences. This resulted in a statistically significant reduction in the mean operating speed of passenger cars. For speeds in urban areas, Sweden established guidelines that consider the city’s character, accessibility, security, traffic safety, and health and environment. This resulted in a mean operating speed decrease of 2-3 km/h (1.2-1.9 mph).

### 5.2.3 Australia

The New South Wales (NSW) Roads and Traffic Authority adopted the Safe Systems approach to develop and implement its road safety programs, with lower speeds and speed limits as essential components. The Safe Systems approach was adopted in 2004 and is guided by the vision that no person should be killed or seriously injured on Australia’s roads.

Australia’s approaches include safer people, roads, vehicles, and speeds collectively and reinforces that the determination of safe speed limits must account for a myriad of factors, including hazards, the road environment, and the movement and presence of different road users. It suggests that those who design, operate, and manage the road system are responsible for the safety of the network.

NSW uses a 50 km/h (31 mph) default urban speed limit, increasing to 60 km/h (37.3 mph) on major arterial roads. A speed limit of 70 km/h (43.5 mph) and 80 km/h (49.7 mph) may be applied but requires restricted abutting access and low to no pedestrian activity. Higher speeds are restricted to motorways and top out at 110 km/h (68.4 mph). Shared zones are restricted to 10 km/h (6.2 mph) while school zones and other areas with high pedestrian traffic or local traffic are restricted to 40 km/h (24.9 mph).

Work zones also have reduced speed limits. NSW uses variable speed limits which adapt to changes in traffic management and incident responses, weather, and roadwork.

## 5.3. Recent National Trends

In the U.S. the safe systems approach to traffic safety is gaining momentum, influenced by international best practices and by recent important safety studies. In 2017, the NTSB safety study found that the safe system approach to setting speed limits in urban areas represented an improvement over conventional approaches because it considers the vulnerability of all road users.[50] The study also advised the Federal Highway Administration "remove the guidance that speed limits in speed zones should be within 5 mph of the 85th percentile speed."[51]

The growing popularity of the safe systems approach is also reflected by the growth of Vision Zero, an initiative that strives to eliminate all traffic fatalities and severe injuries by targeting local jurisdictions and encouraging them to adopt speed-management policies and roadway design practices. As of early 2019, more than 40 U.S. cities – including Sacramento, San Francisco, and Los Angeles – have adopted policies from this initiative and are designated as Vision Zero Cities.[52]

Reflecting these trends, states across the U.S., including Oregon, Washington, and New York are adopting speed-limit-setting laws that grant local agencies more flexibility to establish lower speed limits. Localities, in turn, are leveraging this ability to reduce speed limits and make safety improvements.

Sections 5.3.1, 5.3.2, 5.3.3, and 5.3.4 of this report present U.S. case studies that reflects this trend. These case studies are adapted from the UC ITS Research Synthesis.

### *5.3.1. Oregon*

In 2017 the Oregon legislature gave the City of Portland the authority to lower its residential speed limits from 25 mph to 20 mph. The Legislature extended this authority to all Oregon cities in 2019 via Senate Bill 558.

All of Portland's 3,000 miles of residential streets now have a maximum speed of 20 mph. Portland also has permission to use an "alternative method"[53] for non-arterial streets that references the 85th percentile speeds but places greater emphasis on vulnerable users and the risk of a future crash. Locations where this alternative method is used will require an evaluation report after a two-year trial period focusing on the changes in the number of injury and fatal crashes. This methodology was approved in 2016 and the experimental period was extended to four-years to account for crash data report lag time.

[50] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 54.
[51] Ibid., 57
[52] Vision Zero Network, *Vision Zero Cities* (2019).
[53] Oregon Department of Transportation, *Article 595455* (2016).

### 5.3.2. Washington

In 2013 the Washington Legislature passed a law allowing municipalities to establish a maximum speed limit of 20 mph in a residential or business district. Enabled by this legislation, in 2016 Seattle City Council lowered the speed limit on residential streets from 25 mph to 20 mph and the lowered the default speed limit from 30 mph to 25 mph on arterials (larger streets that are primarily in downtown and nearby neighborhoods).

Additionally, the Legislature passed a law amending the State's Manual on Uniform Traffic Control Devices (MUTCD) that provides local jurisdictions with considerations about what requirements they need to meet in order to revise speed limits.

The Seattle Department of Transportation (SDOT) compiled a data-based justification in support of the lower speed limits. SDOT made the case that the design of the road the city's Vision Zero commitment, and recent mode shift away from driving and toward walking, biking, and taking transit all signaled a need for lower, safer speed limits. SDOT also included speed and safety data from all of their recent Vision Zero pilot projects.

Since the law passed, SDOT has built on the momentum of reducing speed limits across the city to leverage existing state-level authority to reduce speed limits on three high-crash corridors using a context-sensitive engineering study. They are also leveraging both of these tools to reduce speed limits at a neighborhood scale in particular zones.

### 5.3.3. New York

In 2014 the New York State Legislature allowed New York City to reduce the citywide default speed limit from 30 mph to 25 mph.

In addition to lowering citywide speed limits to 25 mph, the city also created numerous Neighborhood Slow Zones across the five boroughs in response to applications from communities. These zones typically include 20 mph on-street markings, signs, speed humps, and other traffic calming treatments and are typically small residential areas with low traffic volumes and minimal through traffic. According to the city, the ultimate goal of the Neighborhood Slow Zone program is to lower the incidence and severity of crashes. Slow Zones also seek to enhance quality of life by reducing cut-through traffic and traffic noise in residential neighborhoods.[54]

The State Legislature also granted permission to establish an automated speed enforcement program involving cameras located in school zones. In 2019, having lowered speeding by over 60 percent in camera locations, the City obtained new authority to expand this program from 140 to 750 zones.

### 5.3.4. Massachusetts

Massachusetts state law allows local jurisdictions to adopt a 25 mph default citywide speed limit on municipal roads in "thickly settled" areas. They may also establish 20 mph safety zones based on criteria of their choosing. Communities that decide to reduce the statutory speed limit to 25 mph are required to "opt in" to the program by notifying the state Department of Transportation. As of September 2019, 42 have opted in, including Cambridge and Boston.[55]

[54] New York City Department of Transportation, *Neighborhood Slow Zones* (2019).
[55] Massachusetts Department of Transportation, *Speed limits in thickly settled or business districts* (2019).

In 2016, Cambridge lowered speed limits to 25 mph citywide and began implementing 20 mph safety zones later that same year. In 2017, Boston reduced the default speed limit from 30 mph to 25 mph. A before-and-after by the Insurance Institute of Highway Safety found that the estimated odds of a vehicle exceeding 35 mph fell 29.3%, the estimated odds of a vehicle exceeding 30 mph fell 8.5%, and the estimated odds of a vehicle exceeding 25 mph fell 2.9%.[56] The study concluded that updated state laws that allow municipalities to set lower speed limits on urban streets without requiring costly engineering studies can provide flexibility to municipalities to set speed limits that are safe for all road users.

## 5.4. Conclusion: Shifting Paradigms

At all levels – international, national, state, and local – establishing speed limits based on safety is increasingly widespread. As more agencies emphasize the safety of all road users as fundamental to establishing speed limits, the traditional 85$^{th}$ percentile approach and its inherent privileging of vehicle throughput and driver behavior is giving way to more multi-faceted, context-sensitive, safety-based approaches. However, as the NTSB safety study notes, "although local officials may wish to incorporate the safe system approach by proposing speed zones with lower limits in urban areas with vulnerable road users, they may be unable to do so because state transportation departments require engineering studies that are driven by the 85th percentile speed."[57]

In the U.S., states are passing legislation that grants local agencies more flexibility to establish lower speed limits, which local jurisdictions are using to lower speed limits to increase safety. Ultimately, increased safety outcomes require cooperation and coordination at both the state and local levels.

[56] Insurance Institute for Highway Safety, *Lowering the Speed Limit from 30 to 25 mph in Boston: Effects on Vehicle* Speeds (2018), cited in UC ITS, *Research Synthesis,* 54-55.
[57] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 29.

# 6.0 Engineering and Designing for Safety – Roads and Vehicles

This section explores roadway engineering and design countermeasures and emerging vehicle technologies to increase safety.

## 6.1. Engineering Countermeasures

A road's posted speed limit is not the only factor that drivers consider when choosing how fast to drive. The physical design of a roadway (such as lane numbers and width, the presence of intersections, roundabouts, and the surrounding landscape) also influences a driver's velocity and is an important component in speed management. As a recent study noted, "our preferences and judgments of appropriate speed are strongly influenced by setting and perspective."[58] The speed at which we choose to operate our vehicles is known as *operating speed*. A driver's operating speed can be influenced by many complex factors, but generally speaking, motorists will drive faster on wide, uncongested roads. They will drive slower on narrow roads with sight markers (such as trees) that provide subconscious feedback on their speeds.

Engineering countermeasures have been identified as one of three types of countermeasures (the others are education and enforcement) that can mitigate a speeding-related safety problem.[59] Engineering countermeasures are predicated on the fact that roads can be designed to increase or decrease a driver's operating speed. This *design speed* is an important component of overall speed management and as defined by the FHWA "is the selected speed used to determine the various geometric design features of the roadway."[60]

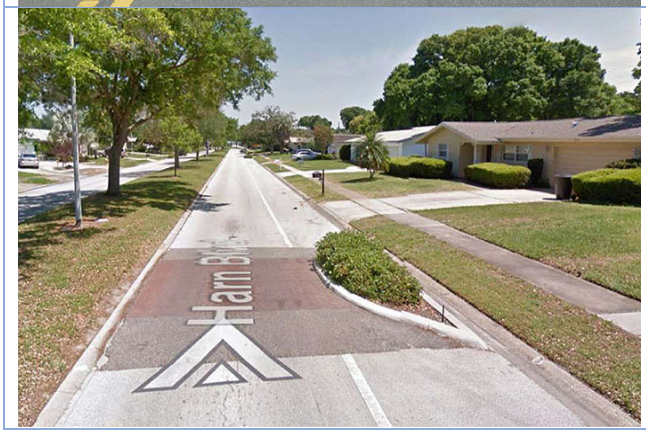
Traffic engineers use a variety of technical terms to discuss changing roadway infrastructure to force drivers to change their behavior. These terms include *engineering countermeasures*, *traffic-calming devices*, *self-enforcing roadways*, *geometric design*, *roadway geometry, physical measures*, and *roadway design features.*

While these terms are not synonymous, they are generally used when discussing "any intentional, long-term alteration to the roadway or its environment that causes changes in motorists' driving behavior."[61] According to the FHWA's *Traffic Calming ePrimer*, while the exact wording may differ, "the essence remains that traffic calming reduces automobile speeds or volumes, mainly through the use of physical measures, to improve the quality of life in both residential and commercial areas and increase the safety and comfort of walking and bicycling."[62]

[58] FHWA, *Speed Concepts: Informational Guide*, 7
[59] NHTSA, *Speed Enforcement Camera Systems Operational Guidelines* (2008), 8.
[60] Ibid., 9
[61] FHWA, *Speed Management Countermeasures Fact Sheet* (2017), 1.
[62] FHWA, *Traffic Calming ePrimer* (2017). Module 2.1.

**Exhibit 6-1** provides images, descriptions, and costs of common engineering and design solutions.

**Exhibit 6-1 – Common Roadway Engineering Elements and FHWA Estimated Cost***

| Example | Description | FHWA Estimated Construction Cost |
|---|---|---|
|  | **Curb extensions**<br>Curb extensions visually and physically narrow the roadway and increase the overall visibility of pedestrians by reducing the crossing distance for pedestrians. | $8,000-$12,000 |
|  | **Chicanes**<br>A chicane is a series of alternating mid-block curb extensions or islands that narrow the roadway and require vehicles to follow a curving, S-shaped path. | $8,000-$10,000 |
|  | **Chokers**<br>Chokers are types of curb extensions that narrow a street by widening the sidewalks or planting strips, effectively creating a pinch-point along the street. | $10,000-$25,000 |

| Example | Description | FHWA Estimated Construction Cost |
|---|---|---|
|  | **Median islands**<br>Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings. | $15,000-$55,000 |
|  | **Raised crosswalks**<br>Raised crosswalks bring the level of the roadway to that of the sidewalk, forcing vehicles to slow before passing over the crosswalk and providing a level pedestrian path of travel from curb to curb. | $4,000-$8,000 |
|  | **Roundabouts**<br>A roundabout is a type of circular intersection that is different than a traffic circle. Traffic travels counterclockwise around center island and vehicles entering the roundabout must yield to enter. | $150,000-$2 million |

| Example | Description | FHWA Estimated Construction Cost |
|---|---|---|
|  | **Speed humps/speed table**<br>Speed humps and tables are devices that encourage people driving to slow down. Speed humps and tables are raised areas that extend across the street. A speed hump is rounded whereas a speed table has a flat top to accommodate a car's entire base. | Speed hump: $2,000-$4,000<br><br>Speed table: $2,500-$8,000 |
|  | **Traffic circles**<br>Traffic circles guide vehicles through an intersection in one direction around a central island. They are usually installed at intersections of neighborhood streets. | $10,000-$25,000 |

**Sources: U.S. Department of Transportation Federal Highway Administration Traffic Calming ePrimer (https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm#eprimer); National Association of Transportation Officials Urban Street Design Guide (https://nacto.org/publication/urban-street-design-guide/)*

*Image Sources:*

1. Curb Extensions
https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm
2. Chicanes
https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm
3. Chokers
https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3pt2.cfm
4. Median Islands
https://www.fhwa.dot.gov/publications/publicroads/11marapr/03.cfm
5. Raised Crosswalks
https://safety.fhwa.dot.gov/ped_bike/step/docs/TechSheet_RaisedCW_508compliant.pdf
6. Roundabouts
https://safety.fhwa.dot.gov/hsip/hrrr/manual/sec43.cfm
7. Speed humps/speed table
https://safety.fhwa.dot.gov/local_rural/training/fhwasa010413spmgmt/
8. Traffic circles
https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm

Within the context of reducing speed and calming traffic, engineering countermeasures are commonly used to slow down traffic, reduce overall traffic volume, reduce cut-through traffic, provide more space for bicyclists and pedestrians, and increase their visibility to drivers. Engineering and design countermeasures can offer a more holistic approach instead of treating streets solely as a conduit for vehicles and balance traffic on streets with other needs of the community. As the exhibit depicts, costs can vary widely depending on the type of solution.

Many studies find that engineering changes are the most effective interventions at reducing pedestrian injury and fatality rates.[63] UC ITS documented the safety improvements associated with multiple engineering solutions. Studies in Denmark and the United States, for instance, have shown that the installation of a single speed bump reduced average vehicle speeds by 2.7 to 3.4 mph, and another American study found that installing multiple speed bumps in succession can reduce average vehicle speeds by 8 to 12 mph in some areas.[64] Horizontal deflections such as chicanes and lane shifts have also been demonstrated to reduce vehicle speeds. Chicanes have been found to reduce average speed by 1.3 to 3.2 mph.[65] Roundabouts have also been found to reduce the speed of vehicles at intersections and have consistently shown to reduce all crashes in all intersection contexts in the range of 35-76% in the United States.[66]

Task Force members overwhelmingly agree that changing a road's infrastructure is the most important factor to reduce vehicle operating speeds. When surveyed, 13 of 15 survey respondents said that design elements effectively reduce speeds. One Task Force member noted that a local city had recently reduced the speed limit in school zones. However, the accompanying wide streets encouraged drivers to ignore the signs and continue driving fast; the lowered speed limit was in itself "not enough to make our streets truly safe."

The effect of roadway design on safety is widely accepted, and the Federal Highway Administration recently released a national pedestrian safety action plan that focuses significant attention on improving pedestrian safety through street redesign and engineering-related countermeasures, as well as the policies that influence street design choices. There are a variety of other sources for cities who wish to pursue engineering countermeasures; these include the National Association of City Transportation Officials' design guides, the Federal Highway Administration's *Traffic Calming ePrimer*, and the *Highway Design Manual* published by Caltrans.

However, there are many challenges associated with changing roadway infrastructure to reduce operating speeds. The Caltrans *Highway Design Manual* does not include standards and specifications for many types of horizontal and vertical traffic calming devices. While large cities such as San Francisco and Los Angeles have developed their own engineering and design guides, smaller cities do not have the resources to produce their own standards and rely on a variety of other sources. Currently, no definitive document exists that provides California cities and counties with comprehensive engineering and design options to reduce vehicle operating speeds.

[63] UC ITS, *Research Synthesis,* 57.
[64] Ibid., 57.
[65] Ibid., 57.
[66] Ibid., 58.

Roadway engineering solutions to reduce operating speed can widely vary in cost, and can include complex multi-million-dollar construction projects. Changing roadway infrastructure on a large scale can be a costly and time-consuming process that can take years. The process involves planning, prioritizing, securing funding, designing, and installation. According to the FHWA, “once constructed, transportation infrastructure is enduring […] Alterations may be costly and disruptive. Since the consequences of roadway design are significant and long-lasting, decisions should be deliberate.”[67] Task Force and Advisory Group members noted that cost and length of time as obstacles to using engineering countermeasures to achieve safer speeds.

In addition to these obstacles, another potential barrier to lowering vehicle operating speeds is the need to meet Level of Service (LOS) requirements. In city planning documents, through state permitting processes, and through the environmental review process, acceptable vehicle LOS for specific roadways is often identified and used in order to avoid excessive traffic congestion and delay. LOS is a metric used to rate the quality of vehicle traffic service based on performance measures like speed, travel time, delay, and congestion. There are six levels of service ranging from "A" through "F," with LOS "A" representing the best range of operating conditions and LOS "F" representing the worst.

When implementing engineering countermeasures designed to reduce vehicle operating speeds, agencies may have to consider the LOS level on a given roadway. For instance, the City of El Centro requires that projects with a significant impact on its transportation system and LOS criteria must mitigate the impact through physical improvements and/or impact fees.[68] In contrast, the City of Roseville notes in its general plan that the implementation of pedestrian districts may slow cars down and reduce the level of service. It thus exempts pedestrian districts from its LOS policy.[69]

Roseville’s exemption illustrates the tradeoff between safety and vehicle level of service within the context of roadway engineering: lower speed limits reduce the probability of crashes but also reduce vehicle levels of service. According to the National Highway Traffic Safety Administration (NHTSA), U.S. communities that privilege levels of service have wide roads with minimal pedestrian accommodations and “consequently, they often experience higher crash rates for all roadway users, as both motorists and pedestrians suffer from the less safe conditions created to achieve these higher levels of vehicle mobility.”[70]

In addition to this fundamental tension, Advisory Group members indicated that roadway funding is sometimes contingent on Level of Service-based improvements such as street widening and capacity enhancements, which tend to increase vehicle operating speeds.

[67] FHWA, *Speed Concepts: Informational Guide*, 33.
[68] City of El Centro, *El Centro General Plan Circulation Element* (2004), 18.
[69] City of Roseville, *General Plan 2035 Circulation Element* (2016), III-15.
[70] NHTSA, *How to Develop and Pedestrian Safety Action Plan* (2009), 10.

**Exhibit 6-2** summarizes the primary barriers to the implementation of engineering solutions designed to lower vehicle operating speed.

**Exhibit 6-2 – Engineering and Design Solutions: Barriers to Implementation**

| Barrier | Description |
|---|---|
| • **Cost** | Roadway infrastructure can range from $2,000 to $2 million depending on the design treatment. |
| • **Long timeline** | Implementing new roadway infrastructure can take years to plan, fund, design, and implement. |
| • **Funding** | Funding for infrastructure can be difficult to obtain and can be contingent upon certain criteria. |
| • **Level of Service standards** | Level of Service standards stipulate acceptable thresholds for traffic congestion and delay. |

As agencies work to balance the proven effectiveness of engineering countermeasures to reduce operating speed with their cost, length, and complexity, it is important to note that some can be low-cost and low-intervention. These include pavement markings (e.g., lane narrowing), static signing (e.g., chevron signs), and dynamic signing (e.g., speed activated speed limit signs, speed activated warning signs), For instance, research has demonstrated that speed feedback signs, which display a vehicle's current speed to remind the driver to slow down, have been effective at reducing speeds by 5 mph.[71]

In order to identify the most effective engineering countermeasures, traffic and transportation professionals can also employ a research-based baseline to quantify the expected safety effectiveness of a countermeasure. One commonly method to achieve that is using crash modification factors (CMF).

As described by UC ITS, a CMF is an estimate of the change in crashes expected after implementation of a countermeasure. CMFs are applied to the estimated crashes without treatment to compute the estimated crashes with treatment. The FHWA CMF Clearinghouse is a web-based database of CMFs along with supporting documentation to help users identify the most appropriate countermeasure for their safety needs. The CMF Clearinghouse contains more than 3,000 CMFs for various design and operational features.[72]

In a preliminary effort to identify the most pertinent crash types for California, UC ITS generated descriptive crash statistics for California based on analysis of data from the Statewide Integrated Traffic Records System (SWITRS) for the years 2014-2018. Results indicated that large number of fatal and severe crashes are head-on or overturned vehicle crash types. These specific crash types can be alleviated by road design features that provide better road side barriers and better separation from head on traffic. The CMF clearinghouse provides a list of quality CMF's that are expected to reduce such crashes.

[71] FHWA, *Speed Management Countermeasures Fact Sheet.*
[72] UC ITS, *Research Synthesis,* 64.

Additionally, UC ITS identifies certain key resources (maintained by NHTSA, FHWA, and CDC) that can support practitioners in identifying a set of road design improvements to reduce crashes of all modes. Crash modification factors are listed for many of the countermeasures, and such factors can be used to calculate cost-benefit estimates. The documents demonstrate that continued application of currently available proven countermeasures can extend the decades-long trends toward greater road safety.

## 6.2. Emerging Vehicle Technologies

Emerging vehicle technologies that are designed to help drivers avoid crashes are quickly entering the motor vehicle marketplace in the U.S. These technology systems, known as advanced driver assistance systems, rely on external sensors to gather information about possible hazards and deploy various interventions, including collision warnings and automated emergency braking, to help drivers avoid crashes. Many vehicle safety and crash avoidance systems are offered to consumers as optional and are not standard. However, adoption of these emerging technologies by consumers and automakers is growing.

For instance, in 2016 the National Highway Traffic Safety Administration and the Insurance Institute for Highway Safety announced the commitment of 20 major automakers to make automatic emergency braking a standard feature on virtually all new cars by 2022.[73] Through this commitment, consumers will have access to this technology more quickly than would be possible through the regulatory process.

Such urgency is due to the safety improvements demonstrated by these driver-assisted technologies. Research is beginning to describe the safety benefits of various levels of emerging technology.[74] For example, the NTSB concluded that intelligent speed adaptation (ISA) technology has been studied extensively and that it is "an effective vehicle technology to reduce speeding."[75] ISA works by comparing a vehicle's global position system (GPS) to the road's speed limit and either warning the driver or slowing the vehicle in the case of excessive speed.

**Exhibit 6-3** provides an overview of common advanced driver assistance systems (ADAS). Some of these technologies provide warnings and rely on the driver to take corrective action; others are designed to automatically brake or steer, taking a more active approach.

**Exhibit 6-3 – Advanced Driver Assistance Systems**

| Feature | Acronym | Description |
|---|---|---|
| **Intelligent speed adaptation** | ISA | ISA systems compare a vehicle's global position system (GPS) to the road's speed limit and either warn the driver or slow the vehicle in the case of excessive speed. |
| **Blind spot warning** | BSW | BSW systems detect vehicles traveling in the vehicle's blind spot and provide some form of warning to the driver. |

[73] NHTSA, *Fact Sheet: Auto Industry Commitment to IIHS and NHTSA on Automatic Emergency Braking (2016).*
[74] UC ITS, *Research Synthesis,* 68.
[75] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 45.

| Feature | Acronym | Description |
|---|---|---|
| **Automatic emergency braking** | AEB | AEB systems determine the distance between the vehicle and other vehicles/objects directly ahead and automatically apply brakes when it senses a crash is imminent. Many current-generation AEB systems are also designed to detect and respond to pedestrians and cyclists. |
| **Forward collision warning** | FCW | FCW systems determine the distance between the vehicle and other vehicles/objects directly ahead and warn the driver when the system determines an imminent threat. Many current-generation FCW systems are also designed to detect and respond to pedestrians and cyclists. |
| **Lane Departure Warning / Lane Keeping Assist** | LDW/LKA | LDW and LKA systems use cameras to determine the position of the vehicle in relation to lane markings. LDW systems are designed to prevent crashes in which the vehicle leaves its travel lane unintentionally. |

A recent research brief on advanced driver assistance systems, sponsored by the AAA Foundation for Traffic Safety, provided new estimates on the number of crashes, injuries, and deaths that such systems could potentially help prevent based on 2016 U.S. crash characteristics. The brief estimates that these technologies, if installed on all vehicles, would have had the potential to help prevent or mitigate roughly 40% of all crashes involving passenger vehicles, and 37% of all injuries and 29% of all fatalities that occurred in those crashes. It concludes that "Current and future vehicle safety systems have the potential to dramatically reduce the number of crashes, injuries and fatalities on our roadways."[76]

[76] AAA Foundation for Traffic Safety, *Potential Reductions in Crashes, Injuries, and Deaths from Large-Scale Deployment of Advanced Driver Assistance Systems* (2018), 9.

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# 7.0 Speed Enforcement

This section provides an overview of speed enforcement considerations with a focus on automated speed enforcement.

## 7.1. Overview of Speed Enforcement

Speed limits and speed limit enforcement are intertwined. Appropriately set speed limits must be enforced to be optimally effective, and the purpose of enforcement strategies is to increase compliance with traffic laws, including the legal speed limit.[77] Enforcement is one of three categories of countermeasures (in addition to engineering and education) identified by the FHWA that can mitigate a speeding-related safety problem, as enforcement can deter speeding and penalize violators. There are many methods to conduct enforcement, including, regular traffic patrols, high visibility enforcement, and automated speed enforcement. Automated speed enforcement is discussed in Section 7.2 and high visibility enforcement is discussed in Section 7.3.

However, speed limit enforcement is only one of the duties of an officer. With competing resource needs, law enforcement agencies must make decisions how much time to devote to speed enforcement and how to structure an effective speed enforcement program. The NHTSA's *Speed Enforcement Program Guidelines* provides guidance for local agencies on speed enforcement programs and notes that there is no single best method for enforcing speeds:

> *Each jurisdiction needs to customize a combination of technologies and tactical methods to enforce speeds that works best for its community. […] Speed enforcement countermeasures need to be tailored to the particular problems identified in the community and local circumstances. The selected enforcement methods should be based on analysis of data on speeds and crashes and on citizen reports.*[78]

In California, speed limit enforcement programs face several challenges, including the lack of adequate law enforcement staffing. Following the 2008 recession, law enforcement agencies severely cut back their resources for traffic safety enforcement activities. While traffic fatalities in California have continued to rise, law enforcement staffing levels have not rebounded. The California Office of Traffic Safety (OTS) provides some Federal funds for traffic safety enforcement, and some California jurisdictions would not have dedicated traffic safety enforcement officials without these funds.

According to the California Vehicle Code, a speed trap is defined as a section of a highway with a prima facie speed limit if the limit is not justified by an engineering and traffic survey conducted within 5-10 years prior to the date of the alleged violation and if the enforcement of the limit involves the use of radar or other electronic devices.[79] In short, if the roadway's speed limit is not supported by a current traffic survey, the limit cannot be enforced using lidar or radar. However, this does not apply on State-defined local roads, which are exempt from speed trap regulations. This exemption enables authorities to enforce speed limits on local roads without a valid traffic survey.

[77] NHTSA, *Countermeasures that Work*, 8-36.
[78] NHTSA, *Speed Enforcement Program Guidelines* (2008), 14-15.
[79] CVC 40802.

Local agencies on the Task Force state that they struggle to meet the State requirement to update their engineering and traffic surveys. Posted speed limits in California are not enforceable if the underlying traffic speed surveys have expired. To enforce posted speed limits using lidar or radar, local agencies must update a street's engineering and traffic survey every 5 to 10 years. Some city representatives on the Task Force maintain that they struggle to find the resources needed to update the traffic surveys on their roads. Without a current traffic survey on file for a particular roadway, speeding tickets issued using lidar or radar are not defensible in court since these conditions meet the statutory definition of a speed trap.

According to its city documents, Los Angeles experienced a backlog of engineering and traffic surveys in 2015. Unable to update speed surveys at the rate at which they were expiring, the city noted that only 19% of its speed limits within its high injury networks were able to be enforced with radar.[80] (High Injury Networks are streets where high numbers of fatal and serious crashes are concentrated.) The City Council directed the Department of Transportation to update all eligible surveys. Based on the survey results, the City passed an ordinance in 2018 to raise the speed limit on over 100 miles of its streets.[81]

This example illustrates a particular predicament that is the byproduct of current law: if cities do not update their traffic surveys, they cannot enforce the speed limit using radar, but if they do update their traffic surveys, speed limits are likely to rise, since speed creep is an unintended consequence of using the 85$^{th}$ percentile methodology.

Despite these challenges, enforcing speed limits is an effective countermeasure to reducing speeding and eliminating crashes, serious injuries, and fatalities on California's roadways. Effective enforcement is an important additional step that can be taken to make roadways safer as part of a multifaceted approach, and it is even more effective when combined with public education. As the FHWA notes, "traffic enforcement is most effective when it is highly visible and publicized, to reinforce the required behavior and to raise the expectation that failure to comply may result in legal consequences."[82]

## 7.2. Automated Speed Enforcement

While there are many enforcement methods available to law enforcement agencies, automated speed enforcement (ASE) harnesses technology to reduce speeding. ASE detects speeding violations and records identifying information about the vehicle and/or driver. Typically, radar or lidar is set to detect vehicles going above a certain speed. Once a speed vehicle is detected by the radar system, the camera is triggered. Cameras are either permanently fixed on poles or are mobile. The camera takes a picture of the license plate and, depending on the program specifics, the driver. (Some programs require drivers to be identified while others do not.) At a later time, a back-office processor reviews and processes the violation. This processor can be a law enforcement officer or a third-party vendor. In processing, the individual determines if a violation occurred and matches the camera information to vehicle registration information. Lastly, a citation is mailed to the vehicle driver or owner (depending on the specifics of the program).

[80] City of Los Angeles Department of Transportation, *Enhanced Speed Enforcement and Tools to Reduce Speeding* (2015), 5.
[81] City of Los Angeles Board of Transportation Commissioners, *Ordinance Approval for Recommended Speed Limit Revisions and Additions,* (2018).
[82] NHTSA, *Countermeasures that Work*, 8-36.

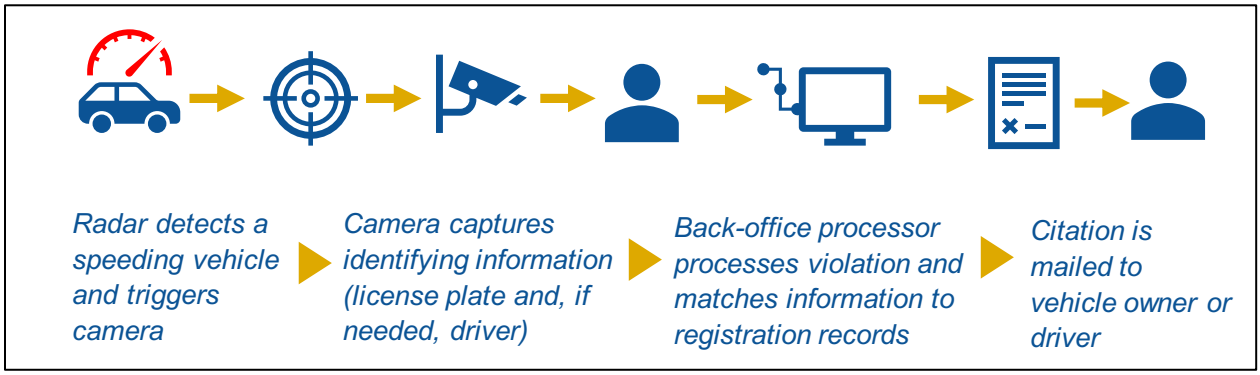
All ASE systems have three basic components:

1) Speed measuring (typically using radar or its laser equivalent lidar)
2) Data processing and storage
3) Image capture

**Exhibit 7-1** provides a visual high-level overview of this process.

ASE has been in use worldwide and its effects on traffic speeds and crashes has been studied for more than two decades. ASE has proven to be an effective countermeasure to reduce speed-related crashes and injuries.[83] In its 2017 *Safety Study*, the NTSB analyzed studies of ASE programs, including U.S. programs. These studies demonstrated significant safety improvements in the forms of reduction in mean speeds, reduction in the likelihood of speeding more than 10 mph, and reduction in the likelihood that a crash involved a severe injury or fatality.[84] In the City of Scottsdale, which implemented an ASE program in the mid-2000s, ASE was effective in reducing speeding and improving safety.[85]

**Exhibit 7-1 – High-Level Overview of ASE Process**




Like any type of enforcement methodology, ASE has its specific benefits and limitations. Because automated speed enforcement does not require a law enforcement officer to be present, it has the ability to continuously enforce the speed limit while freeing up officers for other duties. ASE can also operate in areas, such as busy intersections, where in-person traffic stops would be impractical or distracting to other drivers. ASE can be used on higher speed roadways where traffic calming devices may not be appropriate. On the other hand, ASE does not immediately stop speeding drivers. Furthermore, due to the lack of direct contact between the officer and driver, there is no opportunity for education, to observe suspicious activities and identify additional offenses (such as impaired driving) nor does it afford the exercise of judgment in issuing a citation (such as a written or verbal warning) that an officer would have. **Exhibit 7-2** depicts the benefits and limitations of ASE, as drawn from the NTSB's study *Reducing Speeding-Related Crashes Involving Passenger Vehicles* and NHTSA's *Speed Enforcement Camera Systems Operational Guidelines.*

[83] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 37.
[84] Ibid., 37.
[85] Simon Washington, *Evaluation of the City of Scottsdale Loop 101 Photo Enforcement Demonstration Program* (2017), 135.

**Exhibit 7-2 – Benefits and Limitations of ASE**

| Benefits of ASE | Limitations of ASE |
|---|---|
| • Frees up law enforcement resources to be used elsewhere and can serve as "force multiplier" | • Driver does not stop and may continue to speed |
| • Can operate where: 1) in-person traffic stops would be dangerous; and 2) on higher speed roadways where traffic calming devices may not be appropriate | • Limited scope of enforcement and lack of direct contact with motorists |
| • May reduce congestion from other drivers distracted by traffic stops | • Time lag between violation and penalty |
| • Ability to continuously enforce speed limit | • Challenged on several constitutional grounds, including:<br>○ Rights of due process<br>○ Rights of equal protection<br>○ Rights of privacy |
| • Proven to be an effective countermeasure to reduce speed-related crashes and injuries | • Criticized by the public as a tool to generate revenue rather than increase safety |

The NHTSA *Speed Enforcement Camera Systems Operational Guidelines* address the considerations that should be taken into account when implementing and operating an ASE program. *The guidelines emphasize that an ASE program is supplement to, not a replacement for, traditional law enforcement operations.* The guidelines describe general considerations and planning; program start-up; program operations; violation notice processing and delivery; violation notice receipt and adjudication; and program evaluation.

In addition to these general topics, NHTSA also provides more specific policy considerations for any potential ASE program, many of which were echoed by Task Force members. These considerations include:

- Locations
- Citation Type and Amount
- Warning Phase
- Adjudication
- Use of Revenue
- Operation
- Public Notice
- Speed
- Privacy and Use of Data
- Equity
- Camera Calibration
- Oversight

The Task Force spent some time discussing automated speed enforcement and its potential safety benefit and the following recommendation for policy consideration reflects that. However, it is important to acknowledge the sensitive and complex issues surrounding automated speed enforcement.

Although it is used extensively internationally, ASE has not been widely adopted in the U.S. at a Statewide level. It is currently used in 142 U.S. cities and is not currently authorized in California. In the late 1990s, the City of San Jose operated an ASE program but it was halted following a judicial ban. As an effective speeding countermeasure, ASE is underutilized due to various obstacles, including the lack of enabling legislation.[86] According to NHTSA, which gives ASE the maximum 5-star effectiveness rating, "many States have prohibitions in their laws to prevent the use of automated enforcement technology; others have enabling legislation and/or parameters on the use of the technology; and others still have no legislation that addresses the technology's use."[87]

The importance of Statewide support for any ASE program is reflected in the NTSB's 2017 recommendations on ASE in its *Safety Study*. It concludes that in order to be effective, ASE programs need to be explicitly authorized by State legislation without operational and location restrictions, and to this end, the NTSB recommended that all states remove obstacles to ASE programs in order to increase its use.[88]

## 7.3. High Visibility Enforcement

A High Visibility Enforcement (HVE) strategy combines enhanced patrols, enhanced visibility efforts, and publicity campaigns to educate the public and promote voluntary compliance with the traffic laws. For example, an HVE campaign includes increasing patrols and blitzes, installing visibility elements such as message boards and road signs, and implementing a comprehensive communications and media plan. These efforts are coordinated and designed to make enforcement efforts obvious to the public with the goal of changing driver behavior. According to the NHTSA, which offers an online High Visibility Enforcement Toolkit, when the perceived risk of getting caught by law enforcement goes up, the likelihood that people will engage in unsafe driving behaviors goes down.[89] Similarly, FHWA notes that traffic enforcement is most effective when it is highly visible and publicized.[90]

Authorities must consider many factors when implementing an HVE campaign, including types of enforcement (e.g., waves, saturation patrols, multi-jurisdictional); types of publicity (e.g., paid media, earned media, social media), and types of visibility elements (e.g., electronic message boards, billboards, specially marked squads). HVE programs can take 4 to 6 months to plan and incur significant costs for both publicity and increased officer patrols. They require extensive time from the State highway safety office and media staff and often from consultants to develop, produce, and distribute publicity and time from law enforcement officers to conduct the enforcement.[91]

Communications and public outreach are an integral component of HVE programs. To assist state and local agencies to plan and implement HVE programs, NHTSA annually prepares resources for individual HVE program areas, including impaired driving, occupant protection (e.g., Click it or Ticket), and distracted driving. Since states must conduct traffic safety campaigns in order to receive some federal highway safety grant funds, national participation rates are high.[92]

There is no national traffic safety campaign focused on the dangers of excessive speed although campaign material is available from NHTSA. Likewise, California lacks a statewide

[86] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 41.
[87] NHTSA, *Countermeasures that Work*, 3-20.
[88] NTSB*, Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 54-57.
[89] NHTSA, *High Visibility Enforcement Toolkit* (2019), "Visibility Elements."
[90] NHTSA, *Countermeasures that Work*, 8-36.
[91] Ibid., 2-17.
[92] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 49.

speeding-related traffic safety campaign and HVE program. While the NTSB concludes that "traffic safety campaigns that include highly publicized, increased enforcement can be an effective speeding countermeasure, [however] their inconsistent and infrequent use by states hinders their effectiveness."[93]

The California OTS, in partnership with NHTSA, administers traffic safety grants to local and state law enforcement agencies for programs to help them enforce traffic laws. HVE is promoted as a best practice for enforcement operations, including impaired driving, distracted driving, pedestrian and/or bicyclist safety, motorcycle safety, and other traffic enforcement operations that target primary collision factors (including speed) within the jurisdiction.

From October 2016 to September 2017, the City of San Francisco conducted a HVE campaign focused on speeding. The collaborative "Safe Speeds SF" campaign was led by the San Francisco Municipal Transportation Agency (SFMTA) and the San Francisco Police Department (SFPD), with the program evaluation led by the San Francisco Department of Public Health (SFDPH). Law enforcement targeted 11 corridors on the city's High Injury Network and these enforcement efforts were accompanied by media campaigns and community outreach. During the campaign over 1,800 speeding citations were issued to drivers on the HVE corridors.

Following its conclusion, researchers evaluated the campaign. Results indicated that HVE was effective in lowering vehicle speeds *during* the enforcement period, and was modestly effective in lowering vehicle speeds *before* and immediately *after* enforcement. However, these impacts were not sustained in the long term and reductions in driver speeds began to diminish one week after the HVE ended. SFDPH concluded that enforcement must be regular and sustained in order to achieve lower vehicle speeds.[94]

[93] Ibid., 50.
[94] Vision Zero SF, *Safe Speeds SF High Visibility Enforcement Campaign Findings* (November 2019), 1-8.

# 8.0 Additional Steps to Improve Safety

This section describes additional steps that can be taken to eliminate vehicular, pedestrian, and bicycle fatalities on the road, including improving education countermeasures, improving safety data, and linking crash and medical data to create a more comprehensive understanding of traffic crashes.

## 8.1. Improving Education

Traffic safety campaigns use communications and outreach to increase public education and awareness of a traffic safety topic. Nationally, NHTSA is responsible for coordinating and sponsoring national traffic safety campaigns, address occupant protection (*Click it or Ticket*), distracted driving (*U Drive. U Text. U Pay.)*, and alcohol impairment, among other issues. In California, the OTS coordinates with NHTSA to solve key highway safety problems in the state by allocating federal funds to state and local agencies to implement traffic safety programs and grants.

However, public awareness of the dangers of speeding is lacking at both the federal and state level. There is no national campaign devoted to speeding, and, given this absence, "there is incomplete participation among states, and little consistency among the individual state campaigns."[95] The NTSB found that the dangers of speeding are not well-publicized and that citizens generally underappreciate the risks of speeding. While other traffic safety issues are highly visible and have national leadership, speeding lacks this support, especially when contrasted with more visible campaigns:

> *A 2011 study found that 32 states funded public awareness efforts for speeding; 25 of these states reported using a total of 30 different campaign slogans, and 8 states used the NHTSA slogans. In contrast, all 50 states participate in the national occupant protection campaign, and they all use the campaign's "Click It or Ticket" slogan. Participation in the NHTSA-coordinated, national traffic safety campaigns is high because states are required to participate in order to receive some federal highway safety grant funds.*[96]

Currently, California lacks a state funding mechanism for a statewide coordinated traffic safety campaign focused on speeding. As the state leader in behavioral traffic safety, OTS is in the unique position to create campaigns and marketing that can change roadway user's behavior and decrease fatalities throughout the State. OTS directs $4.5 million in federal funding each year to marketing activities and public awareness campaign planning and execution, video and audio public service announcement (PSA) production, social media, media event planning, print, and graphic materials. The current funding level limits the amount of marketing, public relations and outreach related to traffic safety (with a focus on speeding) to the ethnically diverse population of 39 million Californians. The California Department of Public Health can also be consulted in the design, evaluation, and dissemination of evidenced-based campaigns. CDPH created the campaign, "It's Up to All of Us," which could be reintroduced to help increase awareness of the dangers of vehicle speeding to pedestrians and bicyclists. There are numerous ongoing traffic safety campaigns being implemented at the regional and local levels. An example of a regional campaign is the Southern California Association of

[95] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles,* 49.
[96] Ibid., 49.

Governments (SCAG's) Go Human campaign, which is a community outreach and advertising campaign, with the goals of reducing traffic collisions and encouraging people to walk and bike more. Go Human deploys regional media campaigns (radio, social media, gas pump ads, billboards, and print media), local co-branding partnerships via advertisements and events, and demonstration projects.

Education countermeasures can change public knowledge, attitudes, and behavior related to speeding, especially when combined with enforcement campaigns. Public campaigns and education can promote a culture of safety-consciousness and research has shown that the communications component of a traffic safety campaign increases safety benefits; for example, a review of traffic safety campaigns in 12 countries found that public information and education reduced crashes by 9% on average.[97] Improving the education and public outreach regarding the dangers of excessive speed represents an important step that can be taken to help eliminate crashes, serious injuries, and fatalities on California's roadways.

## 8.2. Improving Safety Data

At both a federal and statewide level, the limitations of speeding-related crash data poses another challenge to the practitioners who evaluate and implement countermeasures to increase safety. Common limitations include poor data quality, lack of timeliness, underreporting, and inconsistencies. Yet according to NHTSA, "states need timely accurate, complete, accessible, and uniform traffic records to identify and prioritize traffic safety issues and to choose appropriate safety countermeasures and evaluate their effectiveness."[98]

Based on its analysis of the national Fatality Analysis Reporting System (FARS), the NTSB found that involvement of speeding passenger vehicles in fatal crashes is underestimated and that "the lack of consistent law enforcement reporting of speeding-related crashes hinders the effective implementation of data-driven speed enforcement programs."[99] Similarly, within the context of pedestrian and bicyclist safety, NHTSA found that pedestrian and bicyclist crashes tended to be underreported.[100]

For the purposes of crash reporting, "speeding" is used to identify vehicles that are traveling at speeds which are: 1) unsafe for conditions or 2) exceed the speed limit. Speeds that are unsafe for conditions are based on basic speed law which is defined as driving at a speed greater than is reasonable or prudent considering weather, visibility, traffic, and roadway conditions. Because the definition of speeding includes these two different conditions, it is unknown to what degree exceeding a posted or statutory speed limit contributes to the total number of speeding-related crashes.

Current crash data is required to make evidence-based traffic safety funding decisions, inform enforcement activities, and help direct critical infrastructure investments. The CHP has made substantial progress toward the goal of statewide electronic crash report submission and automated crash data collection. Internally, beginning in 2016, the CHP deployed a fully paperless electronic crash reporting system. Once a completed CHP crash report is approved at the local level, it is electronically submitted, and pertinent crash data is captured in SWITRS. From 2017 to present, 100 percent of CHP generated

[97] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 48.
[98] NHTSA, *Traffic Records Program Assessment Advisory* (2018), 2.
[99] NTSB, *Reducing Speeding-Related Crashes Involving Passenger Vehicles*, 32-33.
[100] NHTSA, *Countermeasures that Work*, 8-5.

crash reports are processed electronically; this represents approximately 46 percent of crash reports statewide. The benefits of the system include near real-time submission of crash reports, as well as enhanced quality control due to business rules and filters built into the programming that prevent entry of data incompatible with the field filled.

In 2019 the CHP expanded this program by developing a Web portal to permit allied agencies outside the CHP to also submit crash reports to SWITRS electronically. The first participating allied agency, Bakersfield Police Department, began submitting electronic crash reports in March 2019. To date, there are four allied agencies fully utilizing the Web portal for electronic crash report submission, and five additional agencies submitting reports in a test environment. Those agencies in the test environment continue to batch and forward printed crash reports. The CHP continues to engage with crash reporting software vendors to accelerate the on-boarding of client agencies. Currently one vendor has achieved full integration; two additional vendors are in the testing process.

Although the CHP has received relatively few allied agency crash reports electronically through the Web portal (2,174 as of November 2019), the impact on timeliness has been dramatic. Using 2019-to-date data, the raw average time from the day of crash to data entry in SWITRS for a non-electronically submitted crash report is 81 days. Crash reports submitted by agencies using an electronic format and the Web portal are entered into SWITRS in an average of 6 days.

While progress has been made, there are still opportunities to expedite allied agencies' submissions of traffic crash data reports electronically. Specifically, NHTSA offers federal grants to improve the timeliness, accuracy, completeness, uniformity, accessibility, and integration of the crash data. Within California, OTS administers these 405(c) grants and is prepared to award these grants to local law enforcement agencies to assist in efforts to electronically transmit crash records into the SWITRS system. Expediting allied crash reports into SWITRS will provide significant improvement in traffic crash data availability.

## 8.3. Linking Crash and Medical Data

Transportation professionals and policymakers have long relied on crash data collected at the scene by law enforcement officials to inform traffic safety decisions. Yet recent efforts have highlighted the limitations of crash data and the corresponding opportunity to improve it by linking it with medical data. According to the Collaborative Sciences Center for Road Safety, a federally-funded academic research project, "traditionally, safety and injury analysis have occurred in isolated fields, with road safety researchers relying predominately on police-recorded crash reports, and public health researchers relying on health records (e.g., hospital, emergency department, and ambulatory care data)."[101] This division has led to an incomplete and inconsistent picture of traffic crashes, with different records reflecting different findings. For example, research comparing police data reported in SWITRS (California's Statewide Integrated Traffic Records System) and San Francisco hospital data found that police records did not include approximately 20% of pedestrian injuries and 25% of cyclist injuries.[102]

[101] Collaborative Sciences Center for Road Safety, *Completing the Picture of Traffic Injuries: Understanding Data Needs and Opportunities for Road Safety* (2018), 2.
[102] San Francisco Department of Public Health (SFDPH), *San Francisco's Transportation-related Injury Surveillance System* (2017), 1.

Efforts to provide a more complete picture of transportation-related injuries by linking existing traffic and health data were initiated at the national level in the early 1990s. From 1992 to 2013 NHTSA worked with individual states to develop data linkage programs under the Crash Outcome Data Evaluation Systems (CODES). In 2013, CODES was discontinued and some states retired their programs while others have continued their data linkage projects independently. In California, the Department of Public Health maintains the statewide data linkage effort through the Crash Medical Outcomes Data (CMOD) Project, which electronically links police crash reports with health and death data. This dataset enables policymakers and professionals to understand the geographic distribution, causes, costs, and consequences of traffic injuries and fatalities, and ultimately to develop targeted injury prevention strategies to eliminate them.

At the local level, the San Francisco Department of Public Health spearheaded the effort to develop the Transportation-related Injury Surveillance System (TISS). In 2017, San Francisco was the first city in the country to use the resulting linked data to update its High Injury Network (HIN) and analyze spatial patterns of severe and fatal injuries. With this more robust data, San Francisco was able to identify locations of unreported traffic injuries, better capture injury severity, and focus its HIN on the most severe outcomes.[103]

Cities that want to create their own linked datasets must confront a key challenge, namely the need to accurately link records while also adhering to privacy laws for personally identifiable information (PII) and protected health information (PHI). While there are many linkage methodologies, the quality and success of the linkage is highly dependent on multiple unique identifiers that are subject to privacy laws such as name, date of birth, and other personally identifying information.[104] For example, law enforcement does not usually collect social security numbers, and if they do so, this information is subject to the Health Insurance Portability and Accountability Act (HIPAA).[105]

Such factors must be kept in mind as part of the renewed interest in developing linked datasets, which can provide a more complete picture of traffic injuries and fatalities and, ultimately, help policymakers develop strategies to prevent them.

[103] SFDPH, *San Francisco's Vision Zero High Injury Network: 2017 Update* (2017), 2.
[104] Collaborative Sciences Center for Road Safety, *Completing the Picture of Traffic Injuries,* 3-4.
[105] Ibid., 3.

# 9.0 Findings and Recommendations for Policy Consideration

The findings and recommendations for policy consideration (recommendations) are organized as follows (not in priority order):

- Establishing Speed Limits (S)
- Engineering (EN)
- Enforcement (EF)
- Education (ED)

Findings are abbreviated as “F.” Recommendations are abbreviated as “C.” In some cases, a finding may have multiple recommendations

The recommendations have been developed based on input from the Task Force, Advisory Group, the literature synthesis prepared by the University of California Institute of Transportation Studies (UC ITS), and other research findings. It is important to note that all Task Force members may not agree with all the findings and recommendations. These recommendations are being offered for further policy discussion and review by interested stakeholders and do not reflect an official position or endorsement of the Administration. The following Guiding Principles were established for the recommendations:

1. Data-driven / evidence based: studied and shown to be effective in improving safety.
2. Implementable statewide: supported and realistic to implement statewide, for both State and local agencies.
3. Supports partnerships and innovation: inclusive of the multiple disciplines with traffic safety and would benefit from a partnered approach across state, regional, local, and external stakeholders.

## 9.1. Establishing Speed Limits (S) – Findings and Recommendations for Policy Consideration

### F-S1: Existing law does not provide enough flexibility in urban areas to set speed limits that are appropriate for these complex environments.

Current procedures for setting speeds limits in California rely mainly on the 85th percentile methodology, an approach developed decades ago for vehicles primarily on rural roads. Although California's population, roads, and streets have changed significantly, reflecting different modes of transportation including bicycling and walking, the method for setting speed limits has not. While the way that speed limits are calculated has remained essentially static, vehicles and street uses have evolved over time. CalSTA's vision is to transform the lives of all Californians through a safe, accessible, low-carbon, 21st-century multimodal transportation system. Yet the 85th percentile methodology relies on driver behavior. Greater flexibility in establishing speed limits would allow agencies an expanded toolbox to better combat rising traffic fatalities and injuries.

### F-S2: Developing a different approach to setting speed limits would enable the State to prioritize safety outcomes to meet the needs of all road users.

The current approach to setting speed limits relies on driver behavior. With fatalities and serious injuries on the rise, many authorities are reevaluating this current approach. Consistent with international trends, other U.S. states, including Oregon, Washington, Minnesota, and New York, are enabling their cities to lower their speed limits and are exploring alternative methods to establish speed limits based on safety goals and local context instead of the 85th percentile speed. California has the opportunity to reevaluate how it sets speed limits to develop a new approach that prioritizes safety for all road users.

| ***Number*** | ***Recommendation for Policy Consideration*** |
|---|---|
| **C-S1** | Develop and implement a new roadway-based context sensitive approach to establish speed limits that prioritizes the safety of all road users. This approach should be based on how a street is used and by whom, how protected non-motorized users are from vehicles, how likely it is that there will be a conflict between vehicles and other street users, and how likely it is that a collision will result in a fatal or serious injury.<br><br>Possible implementation steps may include convening an expert advisory group in 2020 to evaluate national and international data-driven approaches to establishing speed limits; examine evidence-based research; and solicit public input and comment.<br><br>Note: This is a long-term recommendation. In contrast, the recommendations regarding changes to the speed-limit-setting process are short-term. |

### F-S3: Recent research has demonstrated that reducing posted speed limits reduces vehicle operating speeds and improves safety across most road environments.

Current evidence supports the use of reducing speed limits to increase safety in general. In a research synthesis commissioned specifically for this report, the University of California, Institute of Transportation Studies found that reducing posted speed limits also reduces drivers' operating speeds and improves safety across most road environments. While reducing posted speed limits only reduce drivers' operating speeds by a few miles per hour, these small changes in operating speed result in meaningful safety improvements. This is especially the case for environments with vulnerable road users as they greatly benefit from even small changes in operating speeds. Although historical research between safety and speed asserted that posting the speed limit at the 85$^{th}$ percentile speed resulted in the lowest crash rate, recent studies indicate that there is not strong evidence to support this claim.

### F-S4: Current procedures for establishing speed limits do not offer agencies enough flexibility to set appropriate speed limits.

The process for setting speed limits through engineering and traffic surveys does not require consideration of factors such as road use and pedestrian and bicyclist safety. Although engineers may consider additional factors to the 85$^{th}$ percentile speed and crash history when establishing speed limits, many stakeholders believe that consideration of these other factors should be required and prioritized. In addition, speed data collection procedures are not always thorough enough to reflect the complexity of the street. In the two-step process to establish speed limits, engineers determine the 85$^{th}$ percentile speed and may then apply rounding allowances to arrive at a lower, adjusted speed limit. However, the procedures limit these allowances and adjustments. Many stakeholders, including local agencies and CalSTA departments, believe that the current procedures are overly restrictive and prevent the establishment of appropriate speed limits. Further, fatal and serious crashes are often clustered on a relatively small number of streets/areas (i.e., High Injury Networks and high collision concentration locations) and disproportionately impact vulnerable road users yet existing rounding allowances do not allow further reduction in speed in these areas.

| ***Number*** | ***Recommendations for Policy Consideration*** |
|---|---|
| **C-S2** | Once the National Cooperative Highway Research Program (NCHRP) 17-76 "Guidance for the Setting of Speed Limits" research project is complete (anticipated summer 2020), and the final report published, explore implementation of the research results. A realistic assessment includes examining the applicability of the research results for California as well as any impediments to implementation. |
| **C-S3** | Revise traffic survey procedures to specifically require consideration be given to bicyclist and pedestrian safety and develop guidance to describe how to consider bicyclist and pedestrian safety in a traffic survey. |
| **C-S4** | Allow state and local agencies to post speed limits below 25 mph when supported by a traffic survey. |

| *Number* | *Recommendations for Policy Consideration* |
|---|---|
| **C-S5** | Increase the reduction allowance for posted speed limits to allow greater deviations from the 85th percentile speed. Currently, the posted speed may only be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed. Classes of locations where the posted speed may be reduced further should include:<br>• High Injury Networks (HIN). Steps to implement include developing a statewide definition of a HIN. Possible criteria may include:<br>  ○ A minimum of three years of the most current crash data<br>  ○ Weighting of fatal and serious injury crashes<br>  ○ Weighting of crashes that occurred in disadvantaged communities<br>The resultant HIN should: identify specific locations with high crash concentrations; identify corridor-level segments with a pattern of crash reoccurrence; and be able to be stratified by mode.<br>• Areas adjacent to land uses and types of roadways that have high concentrations of vulnerable road users. Steps to implement include defining vulnerable populations (e.g., pedestrians, bicyclists, scooter users, transit users, seniors, children) and developing criteria to identify eligible streets (e.g., streets close to transit centers, homeless shelters, urban parks/playgrounds, and healthcare facilities as well as types of streets like bicycle boulevards and neighborhood greenways). |

**F-S5: There is consistent evidence that increased vehicle speed results in an increased probability of a fatality given a crash. Vulnerable road users are disproportionately impacted by the relationship between speed and crash survivability. State and local agencies would benefit from additional classes of locations eligible for prima facie speed limits which do not require an engineering and traffic survey.**

Prima facie speed limits are those that are applicable on roadways when no posted speed limit is provided. They do not require an engineering and traffic survey to be enforceable. Current law defines two prima facie speed limits covering six classes of locations. The first speed limit is 25 mph and is applicable to business and residential areas, school zones and areas around senior facilities. The second speed limit is 15 mph and is applicable to railway crossings, uncontrolled intersections and alleyways. Some allowances are currently provided to reduce these speed limits further, for example, to 15 mph and 20 mph in school and senior zones. State and local agencies on the Task Force stated that additional classes of locations should be eligible for prima facie speed limits especially in areas that have high concentrations of vulnerable road users.

| *Number* | *Recommendations for Policy Consideration* |
|---|---|
| **C-S6** | Add “business activity district” as an additional class of location eligible for a prima facie speed limit. Steps to do this include developing a statewide "business activity district” definition which could include urban villages, neighborhood downtowns, and other business-oriented locations. Ensure “business activity district” prima facie speed limits are applicable to the State Highway System.<br>*Note: Consideration should be given to the existing statutory definition of a Business District which is based on a land use/geography definition and does not accurately reflect the characteristics and use of streets within a dense urban business/downtown area (e.g., high volume of road users and frequent street crossings). Currently, the State Highway System is not eligible for prima facie speed limits in Business Districts.* |
| **C-S7** | Revise requirements related to posting prima facie speed limits in school zones (i.e., a reduced “When Children are Present” speed limit):<br>a. Allow an authority to determine and declare a prima facie speed limit as low as 15 mph without requiring justification by a traffic survey. Currently, if a local jurisdiction wants to lower the speed limit in a school zone below 25 mph they must conduct a traffic survey unless the local jurisdiction passes an ordinance and the road geometry meets specific conditions stipulated in the CVC.<br>b. Expand the roadway conditions that allow for school zone prima facie speed limits. Currently, the prima facie limits for school zones only applies to roadways that have certain posted speed limits and a limited number of traffic lanes.<br>c. Clarify the definition of “WHEN CHILDREN ARE PRESENT.” Currently, school zone prima facie limits are only applicable when children are present, however the meaning of “when children are present” is subjective. |

### F-S6: Current procedures for establishing speed limits have produced the unintended consequence of speed creep, or rising vehicle operating speeds over time.

Studies have shown that using the 85$^{th}$ percentile speed to establish speed limits has increased drivers’ operating speeds as an unintended consequence. Raising speed limits to match the 85$^{th}$ percentile speed of vehicles leads to higher operating speeds, which can then contribute to a higher 85$^{th}$ percentile speed. Research has shown that over time, vehicle operating speeds continue to increase even if the road and vehicle conditions remain the same.

| Number | Recommendation for Policy Consideration |
|---|---|
| **C-S9** | Allow for a traffic survey to retain the existing speed limit (or revert to one determined in a prior traffic survey) unless a registered engineer determines that significant design changes have been made to the roadway since completion of the last traffic survey with the specific intent of increasing the safe operating speed.<br><br>Currently, if a speed survey shows that vehicle operating speeds have increased, agencies must raise the posted speed limit even if the roadway design has not changed, contributing to speed creep over time. |

### F-S7: State and local agencies need statutory clarification on the rules, procedures, and exceptions to posted speed limits.

The rules and procedures governing posted speed limits are found in an inconsistent set of codes and manuals, including the California Vehicle Code and the California Manual for Setting Speed Limits. Many stakeholders, including local agencies and CalSTA departments, find some of the statutory language in these sources unclear and ambiguous. For example, speed allowances in senior zones need to be clarified. Technical clarification may help agencies better understand how and under what conditions speed limits below the 85$^{th}$ percentile speed can be established.

| Number | Recommendation for Policy Consideration |
|---|---|
| **C-S10** | Consolidate and clarify statutory sections related to speed setting methodology. |

### F-S8: State and local agencies would benefit from a single source of guidance on how to establish speed limits.

California is divided into 58 counties and 482 cities. Many large local agencies are familiar with policies, procedures, and statutory mandates on posted speed limits and prima facie zones. However, smaller jurisdictions are not as well-versed in these topics and some are unaware of the myriad of existing rules that allow them to deviate from the 85$^{th}$ percentile speed. The opportunity exists to provide consistent step-by-step guidance for state and local agency staff on how to establish speed limits below the 85$^{th}$ percentile speed.

| Number | Recommendations for Policy Consideration |
|---|---|
| **C-S11** | Revise the *California Manual for Setting Speed Limits* to comprehensively cover speed setting methodology and law in easy to understand terminology. This update should be guided by a committee of state and local subject matter experts. New material should include guidance on developing a High Injury Network (HIN) and any new methods developed in the future. |

| *Number* | *Recommendations for Policy Consideration* |
|---|---|
| **C-S12** | Develop state-sponsored training on the *California Manual for Setting Speed Limits*. The training should include general speed concepts, regulatory and advisory speeds, engineering and traffic survey procedures, renewal requirements, common misconceptions, FAQs as well as any new methods developed in the future. The audience for this training would include city officials, state and local traffic engineers, state and local law enforcement, legal staff, judicial council, and traffic safety practitioners. |
| **C-S13** | Establish technical assistance resources, including a webpage, to provide practitioners with an overview of speed setting methodology, best practices, and case studies, as well as any new methods developed in the future. Provide State support to local agencies with less capacity to develop HINs by providing a resource that summarizes existing data and mapping tools available to develop a network. |

## 9.2. Engineering (EN) – Findings and Recommendations for Policy Consideration

### F-EN1: Engineering countermeasures designed to reduce vehicle operating speeds can be costly and time-consuming to implement.

Roadway engineering solutions range from low-cost options such as pavement markings and signs to complex, multi-million-dollar construction projects such as roundabouts. Especially for large-scale engineering designs, there are many barriers to implementation, including lengthy and costly approval, permitting, funding, and construction processes.

| *Number* | *Recommendations for Policy Consideration* |
|---|---|
| **C-EN1** | Review and consider revising the allocation of Highway Safety Improvement Program (HSIP) funds between local roads and the State Highway System (SHS) from a data-driven perspective. Analyze the current HSIP allocations and determine if revisions to the allocations could improve statewide safety outcomes. As part of the evaluation, review other funding sources (e.g., sales tax measure funds) and amounts for both State and local safety projects. Currently, the total HSIP funding allocation received from the federal government is divided in approximately equal amounts between local roads and the SHS. |
| **C-EN2** | Regularly review the Caltrans encroachment permitting process to identify inefficiencies and determine new methods to expedite safety-related projects. In 2019, Caltrans implemented a Lean 6 Sigma project to decrease the time needed to approve or deny an encroachment permit application. Regular evaluation would provide an opportunity to make modifications in order to continually improve this process. |

### F-EN2: Agencies who want to lower the operating speed of vehicles to improve safety using engineering interventions would benefit from Statewide policies, guidance, and standards.

While large cities such as San Francisco and Los Angeles have developed their own engineering and design guides, smaller cities do not have the resources to produce their own standards and rely on a variety of other sources. This includes federal guidelines, guidance produced by professional associations, and the Caltrans' *Highway Design Manual* (developed for State highway design functions). Currently, no definitive document exists that provides agencies with comprehensive engineering and design standards to design low speed roadways that prioritize people walking, bicycling, and taking transit. For instance, the Caltrans *Highway Design Manual* does not include standards for many types of horizontal and vertical traffic calming devices.

| Number | Recommendations for Policy Consideration |
|---|---|
| **C-EN3** | Develop policies related to the following topics and incorporate them into the Highway Design Manual:<br>• Traffic calming<br>• Lane narrowing<br>• Reallocation of the roadway cross-section<br>• "Target speed"<br>*Note: While Design Speed is a selected speed used to determine the various geometric features of the roadway, the "Target Speed" is the intended velocity for drivers. The intent of "target speed" is to geometrically redesign roadways in order to decrease operating speed. The topic of "Design Speed" versus "Target Speed" typically centers on roadways with speed limits between 25 mph and 45 mph especially where the 85$^{th}$ percentile speed is higher than the posted speed limit.* |
| **C-EN4** | Require Caltrans to regularly convene a committee of external roadway design experts to advise on revisions to the Highway Design Manual. Meetings of this committee will serve as a forum to gather, review and evaluate proposals concerned with rules and regulations prescribing design standards contained in the Highway Design Manual (HDM). This committee will develop an experimentation process for design standards not currently in the HDM and procedures for updating the HDM based successful experiments. Through the California Traffic Control Devices Committee (CTCDC), Caltrans is able to fulfill statutory requirements to consult with local agencies (and the public) before revising the California Manual on Uniform Traffic Control Devices (CA MUTCD). The intent is to develop a committee, similar to the CTCDC in concept, to provide guidance on the Caltrans Highway Design Manual. Consideration should be given to including public health professionals in the newly formed Caltrans' design committee. |
| **C-EN5** | Formalize existing traffic control device uses in the CA MUTCD. The purpose of traffic control devices is to promote safety and efficiency by providing for the orderly movement of all road users. Develop and conduct a biennial survey to understand how agencies are implementing traffic control devices then analyze whether updates to the CA MUTCD should be made through the CTCDC or whether statewide experiments should be created. |
| **C-EN6** | Develop a statewide traffic safety monitoring program that identifies and addresses locations with speeding-related crashes, with the long term goal of substantially reducing speeding-related fatalities and serious injuries. Newly developed traffic calming devices (see C-EN3) will be the toolbox for this speeding-related monitoring program. An evaluation of the completed monitoring program investigations will help to inform a possible recommendation on modification to the definition of "speeding-related" in crash reporting. |

| Number | Recommendations for Policy Consideration |
|---|---|
| **C-EN7** | Make the pilot State-led traffic safety monitoring programs that identify and address locations with pedestrian- and bicyclist-related crashes permanent. Expand this pilot to include both reactive (i.e., crash-based) location identification, proactive (i.e, systemic) location identification and all public roads (i.e., on and off SHS) . Currently, there are four ongoing traffic safety monitoring programs that identify and address locations statewide that have experienced vehicle-related crash types but none of these programs provide regular mechanism to evaluate and improve locations for pedestrian- and bicyclist-safety. |

### F-EN3: Local agencies voiced concern about the impact of Level of Service requirements on their efforts to lower vehicle operating speeds through engineering interventions.

In city planning documents, through state permitting processes, and through the environmental review process, acceptable vehicle Levels of Service (LOS) for specific roadways is often identified and used in order to avoid excessive traffic congestion and delay. LOS is a metric used by engineers to rate the quality of traffic operating conditions on a scale from best (A) to worst (F) and to define what level is acceptable. While further investigation is needed, preliminary findings suggest that the need to maintain or improve Level of Service is a barrier for local jurisdictions who want to design their roads for slower speeds to accommodate other road users such as bicyclists and pedestrians.

| Number | Recommendations for Policy Consideration |
|---|---|
| **C-EN8** | Further investigate the impact of Level of Service requirements on the implementation of engineering interventions designed to reduce operating speed. |
| **C-EN9** | With the implementation of Senate Bill 743 (Chaptered 2013), LOS will be replaced by Vehicle Miles Traveled (VMT), including induced demand analysis, as a new metric for transportation analysis under the California Environmental Quality Act (CEQA). Caltrans is developing guidance on VMT analysis and associated safety analysis for both SHS projects and local land use projects through CEQA. In order to increase positive safety outcomes:<br>• Through the Local Development-Intergovernmental Review (LD-IGR) process, minimize using or requesting LOS analysis as a measurement of safety for local land use projects with potential impacts to the SHS, particularly in low VMT areas (as defined by the SB 743 Technical Advisory).<br>• Develop LD-IGR guidance, to be used by Caltrans and local agencies as part of SB 743 implementation, that is based on the latest safety research.<br>• Sufficiently train Caltrans and local agency staff to implement SB 743 including the safety analysis component.<br>• Update state-aid local assistance project selection criteria to reflect SB 743 requirements.<br>• Coordinate and collaborate with the federal government so that federal-aid programs allow VMT analysis and mitigation instead of LOS analysis. |

## 9.3 Enforcement (EF) – Findings and Recommendations for Policy Consideration

### F-EF1: International and U.S. studies have shown that automated speed enforcement is an effective countermeasure to speeding that can have meaningful safety impacts.

Automated speed enforcement systems work by capturing data about a speed violation, including images and license plate information, which is then reviewed and processed at a later time to determine if a violation occurred. Currently, automated speed enforcement is used extensively internationally and in 142 communities in the U.S. Numerous studies and several federal entities, including the National Transportation Safety Board, have concluded that automated speed enforcement is an effective countermeasure to reduce speeding-related crashes, fatalities, and injuries.

### F-EF2: Automated speed enforcement should supplement, not replace, traditional enforcement operations.

According to the Federal Highway Administration's *Speed Enforcement Camera Systems Operational Guidelines*, automated speed enforcement is a supplement to, not a replacement for, traditional traffic law enforcement operations. Automated speed enforcement systems can effectively augment and support traditional enforcement operations in multiple ways. Automated speed enforcement systems serve as a "force multiplier" that allows limited law enforcement resources to focus on other public safety priorities. ASE can be operated in areas where in-person traffic stops would be impractical as well as on higher speed roadways where traffic calming devices may not be appropriate. While ASE does not provide an educational opportunity nor afford the exercise of judgment in issuing a citation that an officer would have from an in-person stop, it may also provide for more consistent and impartial enforcement. Examples of cities that have deployed automated speed enforcement programs without reducing law enforcement staffing levels include Seattle, Portland, and Washington, D.C.

| ***Number*** | ***Recommendation for Policy Consideration*** |
|---|---|
| **C-EF1** | Use of automated speed enforcement should supplement, not supplant, existing law enforcement personnel. |

### F-EF3: Many complex public policy considerations must be taken into account to develop and implement an automated speed enforcement program.

When developing an automated speed enforcement program, policy makers confront a number of key decisions. The many complicated and sensitive issues that must be addressed prior to implementation include citation amount, citation type, equity, camera locations, privacy and data use, public noticing, and speed tolerance level. In evaluating and making decisions regarding automated speed enforcement programs, policies and proposed practices need to be fully and transparently vetted through meaningful public awareness, education, and engagement.

| *Number* | *Recommendations for Policy Consideration* |
|---|---|
| **C-EF2** | Automated speed enforcement (ASE) guidelines could take into consideration the following relevant policy issues, which would need to be fully and transparently vetted within the impacted communities to ensure equitable outcomes:<br>• Citation Amount – The citation amount needs to deter speeders but should not be so large that it criminalizes those who cannot afford to pay the penalty.<br>• Citation Type – In addition to considering the merits of either a civil and criminal citations, contemplate adding a warning phase" with the initial program launch where only warnings (not citations) would be issued.<br>• Locations – The location(s) any automated speed enforcement system may be determined based on a data-driven safety analysis.<br>• Privacy – ASE programs may incorporate best practices in surveillance technology.<br>• Public Noticing – Determine the method(s) used to notify the community of the automated speed enforcement program, including advance hearings, signage, and ongoing electronic notification systems. Noticing should include education that articulates the relationship between crash severity and individual vehicle speed.<br>• Speed tolerance level – For consistency, explore establishing Statewide minimum speed tolerance levels, based on either a percentage or absolute amount of the posted speed limit. Some Task Force members observed that if speed tolerances are too low communities grow frustrated due to minor speedometer variances; if the tolerance is too high then law enforcement is communicating that the posted speed is too low for the conditions. The IHHS states that most automated speed enforcement tickets are triggered going at least 10 to 11 MPH over the posted speeds, although the tolerance is lower in certain locations such as school and work zones.<br>• Incorporate Lessons Learned – ASE guidelines should take into consideration existing State regulations for red light cameras as well as on Community Control Over Police Surveillance (CCOPS) practices whenever possible. |
| **C-EF3** | Develop strategies to eliminate any incentive that could turn an automated speed enforcement program into a revenue generation technique. Ideas raised by the Task Force included:<br>• Earmark all automated speed enforcement revenue to solely administer the program and for traffic safety road investments.<br>• Do not allow the entities that establish the speed tolerances, the penalty amount, enforcement locations, and other decisions that impact the automated speed enforcement revenue to financially benefit from their policy decisions. |

| Number | Recommendations for Policy Consideration |
|---|---|
| | • Pay the automated speed enforcement vendor a fixed price for competitively-procured equipment and services, rather than the amount of revenue collected. |

### F-EF4: Traffic safety enforcement is not prioritized amongst all law enforcement agencies Statewide.

Traffic safety enforcement is not prioritized amongst all law enforcement agencies Statewide. Following the recession of 2008, law enforcement agencies severely cut back their resources for traffic safety enforcement activities. Traffic fatalities have been on an upward trend since 2010 and many local law enforcement agencies have not returned to pre-recession staffing. Without funding from the OTS, some areas of the state would not have dedicated traffic safety enforcement. Economists are now predicting another economic downturn soon and many of these agencies are still not operating at full staff.

| Number | Recommendation for Policy Consideration |
|---|---|
| **C-EF4** | Convene a forum where law enforcement agencies Statewide can discuss issues and barriers to consistent and continual traffic safety enforcement.<br>• The goal of the forum would be to share best practices and develop recommendations to overcome the lack of prioritization of traffic safety enforcement across the State.<br>• This event would keep local law enforcement engaged in traffic enforcement operations and reinforce the need for traffic safety enforcement.<br>• This event should include a focus on data-driven, evidence-based strategies to provide for consistent and continual traffic safety enforcement. |

## 9.4. Education (ED) – Findings and Recommendations for Policy Consideration

### F-ED1: Traffic safety education is an important countermeasure to speeding but California lacks sufficient mechanisms for coordinated traffic safety campaigns.

Education countermeasures can change public knowledge, attitudes, and behavior related to speeding, but California lacks a coordinated traffic safety campaign. As the state leader in behavioral traffic safety, the OTS can create safety campaigns that can change roadway user's behavior and decrease fatalities throughout the State. The California Department of Public Health can also be consulted in the design, evaluation, and dissemination of evidenced-based campaigns. Furthermore, there are opportunities for both the California Highway Patrol and the Department of Motor Vehicles to reinforce traffic safety education as well as opportunities to coordinate with current ongoing traffic safety campaigns being implemented at the regional and local levels. California has the opportunity to provide comprehensive, multi-agency, coordinated outreach on the dangers of speeding to the diverse population of 39 million Californians.

| ***Number*** | ***Recommendation for Policy Consideration*** |
|---|---|
| **C-ED1** | Develop a statewide coordinated traffic safety campaign to:<br>• Inform and educate the California population at large on how they can travel safely and abide by the laws of the road.<br>• Prioritize public awareness, outreach, and education on traffic safety and the dangers of excessive speed.<br>• Expand the reach of individual campaigns being impleented at regional and local levels, and leverage investment through coordinated messaging, visuals, and branding. |

# 10.0 Appendices

## A. AB 2363 – Zero Traffic Fatalities Task Force

CHAPTER 8. Zero Traffic Fatalities Task Force

CVC Section 3095.

(a) On or before July 1, 2019, the Secretary of Transportation shall establish and convene the Zero Traffic Fatalities Task Force.

(b) The task force shall include, but is not limited to, representatives from the Department of the California Highway Patrol, the University of California and other academic institutions, the Department of Transportation, the State Department of Public Health, local governments, bicycle safety organizations, statewide motorist service membership organizations, transportation advocacy organizations, and labor organizations.

(c) The task force shall develop a structured, coordinated process for early engagement of all parties to develop policies to reduce traffic fatalities to zero.

CVC Section 3096.

(a) The Secretary of Transportation shall prepare and submit a report of findings based on the Zero Traffic Fatalities Task Force's efforts to the appropriate policy and fiscal committees of the Legislature on or before January 1, 2020.

(b) The report shall include, but is not limited to, a detailed analysis of the following issues:

(1) The existing process for establishing speed limits, including a detailed discussion on where speed limits are allowed to deviate from the 85th percentile.

(2) Existing policies on how to reduce speeds on local streets and roads.

(3) A recommendation as to whether an alternative to the use of the 85th percentile as a method for determining speed limits should be considered, and if so, what alternatives should be looked at.

(4) Engineering recommendations on how to increase vehicular, pedestrian, and bicycle safety.

(5) Additional steps that can be taken to eliminate vehicular, pedestrian, and bicycle fatalities on the road.

(6) Existing reports and analyses on calculating the 85th percentile at the local, state, national, and international levels.

(7) Usage of the 85th percentile in urban and rural settings.

(8) How local bicycle and pedestrian plans affect the 85th percentile.

CVC Section 3097.

This chapter shall remain in effect only until January 1, 2023, and as of that date is repealed.

## B. University of California, Institute of Transportation Studies, Research Synthesis

See attached document.

## C. List of Abbreviations

ASE – Automated Speed Enforcement

Caltrans – California Department of Transportation

CA MUTCD – California Manual on Uniform Traffic Control Devices

CDPH – California Department of Public Health

CHP – California Highway Patrol

CMF – Crash Modification Factors

CMOD – California Crash Medical Outcomes Data Project

CODES – Crash Outcome Data Evaluation Systems

CVC – California Vehicle Code

E&TS – Engineering and traffic survey

FHWA – Federal Highway Administration

HIN – High Injury Network

HVE – High Visibility Enforcement

LOS – Level of Service

NACTO – National Association of City Transportation Professionals

NCHRP – National Cooperative Highway Research Program

NHTSA – National Highway Traffic Safety Administration

NTSB – National Transportation Safety Board

OTS – California Office of Traffic Safety

SFDPH – San Francisco Department of Public Health

SFMTA – San Francisco Municipal Transportation Agency

SFPD – San Francisco Police Department

SDOT – Seattle Department of Transportation

SHSP – California Strategic Highway Safety Plan

SWITRS – Statewide Integrated Traffic Records System

TISS – Transportation-related Injury Surveillance System

UC ITS – University of California Institute for Transportation Studies

AMENDED IN ASSEMBLY MARCH 22, 2021

CALIFORNIA LEGISLATURE—2021–22 REGULAR SESSION

# ASSEMBLY BILL No. 43

**Introduced by Assembly Members Friedman, Ting, Chiu, and Quirk**
**(Principal coauthor: Assembly Member Boerner Horvath)**
***(Coauthors: Assembly Members Ward and Wicks)***

December 7, 2020

An act to ~~add Section 14033.5 to the Government Code, and to amend Section 40802 of, and to add Section 2904.5~~ *amend Sections 627, 21400, 22352, 22354, 22357, 22358, 22358.4, 22359, and 40802 of, and to add Sections 22358.6, 22358.7, and 22358.8* to, the Vehicle Code, relating to traffic safety.

LEGISLATIVE COUNSEL'S DIGEST

AB 43, as amended, Friedman. Traffic safety.

*(1) Existing law establishes various default speed limits for vehicles upon highways, as specified. Existing law authorizes state and local authorities to adjust these default speed limits, as specified, based upon certain findings determined by an engineering and traffic survey. Existing law defines an engineering and traffic survey and prescribes specified factors that must be included in the survey, including prevailing speeds and road conditions.*

*This bill would require local authorities to consider other factors, including pedestrian and bicycle safety, that are allowed but not required to be considered under existing law. The bill would also allow local authorities to consider additional factors, including the current or immediately prior speed limit, as specified.*

*(2) Existing law establishes a prima facie speed limit of 25 miles per hour on any highway, other than a state highway, located in any business or residence district, as defined. Existing law authorizes a local authority to change the speed limit on any such highway, as prescribed, including erecting signs to give notice thereof.*

*This bill would establish a prima facie speed limit of 25 miles per hour on state highways located in any business or residence district and would authorize the Department of Transportation (Caltrans) to change the speed limit on any such highway, as prescribed, including erecting signs to give notice thereof.*

*(3) Existing law establishes a speed limit of 65 miles per hour on state highways, as specified. Existing law authorizes Caltrans to declare a speed limit on any such highway, as prescribed, of 60, 55, 50, 45, 40, 35, 30, or 25 miles per hour, including erecting signs to give notice thereof. Existing law also authorizes a local authority, on a section of highway, other than a state highway, where the speed limit is 65 miles per hour to declare a lower speed limit, as specified.*

*This bill would additionally authorize Caltrans and a local authority to declare a speed limit of 20 or 15 miles per hour, as specified, on these highways.*

*(4) Existing law authorizes a local authority, without an engineering and traffic survey, to declare a lowered speed limit on portions of highway, as specified, approaching a school building or school grounds. Existing law limits this authority to sections of highway meeting specified requirements relating to the number of lanes and the speed limit of the highway before the school zone.*

*This bill would change certain of these requirements related to the declaration of these lowered speed limits. The bill would similarly authorize a lowered speed limit on a section of highway approaching a business activity district, as defined.*

*(5) Existing law requires Caltrans, by regulation, to provide for the rounding up or down to the nearest 5 miles per hour increment of the 85th percentile speed of free-flowing traffic on a portion of highway as determined by a traffic and engineering survey.*

*This bill would authorize a local authority to further reduce the speed limit, as specified, and require Caltrans to accordingly revise the California Manual on Uniform Traffic Control Devices, as specified.*

*(6) Existing law defines a speed trap and prohibits evidence of a driver's speed obtained through a speed trap from being admissible in court in any prosecution against a driver for a speed-related offense.*

*Existing law deems a road where the speed limit is not justified by a traffic and engineering survey conducted within the previous 7 years to be a speed trap, unless the roadway has been evaluated by a registered engineer, as specified, in which case the speed limit remains enforceable for a period of 10 years. Existing law exempts a school zone, as defined, from certain provisions relating to defining a speed trap.*

*This bill would extend the period that a speed limit justified by a traffic and engineering survey conducted more the 7 years ago remains valid, for purposes of speed enforcement, if evaluated by a registered engineer, as specified, to 14 years.*

*This bill would also exempt a senior zone and business activity district, as defined, from those provisions.*

*(7) This bill would make other technical, nonsubstantive, and conforming changes.*

*(8) By creating new duties for local authorities relating to traffic and engineering surveys, this bill would impose a state mandate.*

*The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.*

*This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.*

~~Existing law creates the Department of Transportation (Caltrans) within the Transportation Agency. Existing law provides various duties of Caltrans, including, among others, coordinating and assisting, upon request of the various public and private transportation entities in strengthening their development and operation of balanced integrated mass transportation, highway, aviation, maritime, railroad, and other transportation facilities and services in support of statewide and regional goals.~~

~~This bill would require, beginning June 1, 2022, and every 6 months thereafter, Caltrans to convene a committee of external design experts to advise on revisions to the Highway Design Manual.~~

~~Existing law establishes the California Traffic Safety Program, which consists of a comprehensive plan in conformity with the laws of this state to reduce traffic accidents and deaths, injuries, and property damage resulting from accidents. Existing law requires the program to include~~

~~provisions to improve driver performance, including, driver education, driver testing to determine proficiency to operate motor vehicles, and driver examinations and licensing, and provisions to improve bicyclist and pedestrian education and performance.~~

~~This bill would require the California Traffic Safety Program to include a traffic safety monitoring program that identifies and addresses locations with pedestrian- and bicyclist-related crashes, upon appropriation of state funds for this purpose.~~

~~Existing law establishes various speed limits and prohibits a person from driving with a greater speed than those limits. Existing law prohibits a peace officer or other person from using a speed trap in arresting, or participating in the arrest of, any person for any alleged violation of the Vehicle Code, and prohibits the use of a speed trap in securing evidence as to the speed of any vehicle for the purpose of an arrest or prosecution under the Vehicle Code. Existing law defines the term "speed trap," for these purposes, among other things, to include a particular section of a highway with a prima facie speed limit that is provided by the Vehicle Code or by local ordinance, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within a specified number of years of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device.~~

~~This bill would extend the period of time a prima facie speed limit may be justified by an engineering and traffic survey, as specified, if a registered engineer evaluates the section of the highway and finds that there has been an increase in traffic-related crashes.~~

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: ~~no~~ *yes*.

*The people of the State of California do enact as follows:*

*SECTION 1. Section 627 of the Vehicle Code is amended to read:*

627. (a) "Engineering and traffic survey," as used in this code, means a survey of highway and traffic conditions in accordance with methods determined by the Department of Transportation for use by state and local authorities.

(b) An engineering and traffic survey shall include, among other requirements deemed necessary by the department, consideration of all of the following:

(1) Prevailing speeds as determined by traffic engineering measurements.

(2) Accident records.

(3) Highway, traffic, and roadside conditions not readily apparent to the driver.

(c) When conducting an engineering and traffic survey, local authorities, in addition to the factors set forth in paragraphs (1) to (3), inclusive, of subdivision (b) ~~may~~ *shall* consider all of the following:

(1) Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:

(A) Upon one side of the highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.

(B) Upon both sides of the highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.

(C) The portion of highway is longer than one-quarter of a mile but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph (A) or (B).

(2) ~~Pedestrian and bicyclist safety.~~ *Safety of bicyclists and pedestrians, with increased consideration for vulnerable pedestrian groups including children, seniors, persons with disabilities, users of personal assistive mobility devices, and the unhoused.*

*(d) When conducting an engineering and traffic survey, a local authority may also consider both of the following:*

*(1) The current or immediately prior speed limit for a section of highway, as established by a previous engineering and traffic survey, if a registered engineer has evaluated the section of highway and determined that no significant design changes, with the specific intent of increasing the safe operating speed, have been made to the roadway since completion of the traffic survey that established the speed limit.*

*(2) Whether the section of highway has been designated by the local authority as experiencing a high concentration of fatalities and serious injuries based on recent data.*

*SEC. 2. Section 21400 of the Vehicle Code is amended to read:*

21400. (a) ~~(1)~~ The Department of Transportation shall, after consultation with local agencies and public hearings, adopt rules and regulations prescribing uniform standards and specifications for all official traffic control devices placed pursuant to this code, including, but not limited to, stop signs, yield right-of-way signs, speed restriction signs, railroad warning approach signs, street name signs, lines and markings on the roadway, and stock crossing signs placed pursuant to Section 21364.

~~(2)~~

*(b)* The Department of Transportation shall, after notice and public hearing, determine and publicize the specifications for uniform types of warning signs, lights, and devices to be placed upon a highway by a person engaged in performing work that interferes with or endangers the safe movement of traffic upon that highway.

~~(3)~~

*(c)* Only those signs, lights, and devices as are provided for in this section shall be placed upon a highway to warn traffic of work that is being performed on the highway.

~~(4)~~

*(d)* Control devices or markings installed upon traffic barriers on or after January 1, 1984, shall conform to the uniform standards and specifications required by this section.

~~(b) The Department of Transportation shall revise the California Manual on Uniform Traffic Control Devices, as it read on January 1, 2012, to require the Department of Transportation or a local authority to round speed limits to the nearest five miles per hour of the 85th percentile of the free-flowing traffic. However, in cases in which the speed limit needs to be rounded up to the nearest five miles per hour increment of the 85th-percentile speed, the Department of Transportation or a local authority may decide to instead round down the speed limit to the lower five miles per hour increment, but then the Department of Transportation or a local authority shall not reduce the speed limit any further for any reason.~~

*SEC. 3. Section 22352 of the Vehicle Code is amended to read:*

22352. The prima facie limits are as follows and shall be applicable unless changed as authorized in this code and, if so changed, only when signs have been erected giving notice thereof:

(a) Fifteen miles per hour:

(1) When traversing a railway grade crossing, if during the last 100 feet of the approach to the crossing the driver does not have a clear and unobstructed view of the crossing and of any traffic on the railway for a distance of 400 feet in both directions along the railway. This subdivision does not apply in the case of any railway grade crossing where a human ~~flagman~~ *flagperson* is on duty or a clearly visible electrical or mechanical railway crossing signal device is installed but does not then indicate the immediate approach of a railway train or car.

(2) When traversing any intersection of highways if during the last 100 feet of the driver's approach to the intersection the driver does not have a clear and unobstructed view of the intersection and of any traffic upon all of the highways entering the intersection for a distance of 100 feet along all those highways, except at an intersection protected by stop signs or yield right-of-way signs or controlled by official traffic control signals.

(3) On any alley.

(b) Twenty-five miles per hour:

(1) On any ~~highway other than a state~~ highway, in any business or residence district unless a different speed is determined by local authority *or the Department of Transportation* under procedures set forth in this code.

(2) When approaching or passing a school building or the grounds thereof, contiguous to a highway and posted with a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching or passing any school grounds which are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a standard "SCHOOL" warning sign. For purposes of this subparagraph, standard "SCHOOL" warning signs may be placed at any distance up to 500 feet away from school grounds.

(3) When passing a senior center or other facility primarily used by senior citizens, contiguous to a street other than a state highway and posted with a standard "SENIOR" warning sign. A local authority may erect a sign pursuant to this paragraph when the local agency makes a determination that the proposed signing should be implemented. A local authority may request grant funding from the Active Transportation Program pursuant to

Chapter 8 (commencing with Section 2380) of Division 3 of the Streets and Highways Code, or any other grant funding available to it, and use that grant funding to pay for the erection of those signs, or may utilize any other funds available to it to pay for the erection of those signs, including, but not limited to, donations from private sources.

*SEC. 4. Section 22354 of the Vehicle Code is amended to read:*

22354. (a) Whenever the Department of Transportation determines upon the basis of an engineering and traffic survey that the limit of 65 miles per hour is more than is reasonable or safe upon any portion of a state highway where the limit of 65 miles is applicable, the department may determine and declare a prima facie speed limit of 60, 55, 50, 45, 40, 35, ~~30 or 25~~ *30, 25, 20, or 15* miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe, which declared prima facie speed limit shall be effective when appropriate signs giving notice thereof are erected upon the highway.

(b) This section shall become operative on the date specified in subdivision (c) of Section 22366.

*SEC. 5. Section 22357 of the Vehicle Code is amended to read:*

22357. (a) Whenever a local authority determines upon the basis of an engineering and traffic survey that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe upon any street other than a state highway otherwise subject to a prima facie limit of 25 miles per hour, the local authority may by ordinance *or resolution* determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, or 60 miles per hour or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe. The declared prima facie or maximum speed limit shall be effective when appropriate signs giving notice thereof are erected upon the street and shall not thereafter be revised except upon the basis of an engineering and traffic survey. This section does not apply to any 25-mile-per-hour prima facie limit which is applicable when passing a school building or the grounds thereof or when passing a senior center or other facility primarily used by senior citizens.

(b) This section shall become operative on the date specified in subdivision (c) of Section 22366.

*SEC. 6. Section 22358 of the Vehicle Code is amended to read:*

22358. (a) Whenever a local authority determines upon the basis of an engineering and traffic survey that the limit of 65 miles per hour is more than is reasonable or safe upon any portion of any street other than a state highway where the limit of 65 miles per hour is applicable, the local authority may by ordinance *or resolution* determine and declare a prima facie speed limit of 60, 55, 50, 45, 40, 35, 30, ~~or 25~~ *25, 20, or 15* miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe, which declared prima facie limit shall be effective when appropriate signs giving notice thereof are erected upon the street.

(b) This section shall become operative on the date specified in subdivision (c) of Section 22366.

*SEC. 7. Section 22358.4 of the Vehicle Code is amended to read:*

22358.4. (a) (1) Whenever a local authority determines upon the basis of an engineering and traffic survey that the prima facie speed limit of 25 miles per hour established by subdivision (b) of Section 22352 is more than is reasonable or safe, the local authority may, by ordinance or resolution, determine and declare a prima facie speed limit of 20 or 15 miles per hour, whichever is justified as the appropriate speed limit by that survey.

(2) An ordinance or resolution adopted under paragraph (1) shall not be effective until appropriate signs giving notice of the speed limit are erected upon the highway and, in the case of a state highway, until the ordinance *or resolution* is approved by the Department of Transportation and the appropriate signs are erected upon the highway.

(b) (1) Notwithstanding subdivision (a) or any other provision of law, a local authority may, by ordinance or resolution, determine and declare prima facie speed limits as follows:

(A) A 15 miles per hour prima facie limit in a residence district, on a highway with a posted speed limit of ~~30~~ *35* miles per hour or slower, when approaching, at a distance of less than 500 feet from, or passing, a school building or the grounds of a school building, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 15 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit shall also

apply when approaching, at a distance of less than 500 feet from, or passing, school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a school warning sign that indicates a speed limit of 15 miles per hour.

(B) A 25 miles per hour prima facie limit in a residence district, on a highway with a posted speed limit of ~~30~~ *35* miles per hour or slower, when approaching, at a distance of 500 to 1,000 feet from, a school building or the grounds thereof, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 25 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching, at a distance of 500 to 1,000 feet from, school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a school warning sign that indicates a speed limit of 25 miles per hour.

*(C) A 25 or 20 miles per hour prima facie speed limit on a highway contiguous to a business activity district when posted with a sign that indicates a speed limit of 25 or 20 miles per hour.*

(2) The prima facie limits established under paragraph (1) apply only to highways that meet all of the following conditions:

(A) A maximum of ~~two~~ *four* traffic lanes.

(B) A maximum posted ~~30~~ *35* miles per hour prima facie speed limit immediately prior to and after the school ~~zone.~~ *zone or business activity district.*

(3) The prima facie limits established under paragraph (1) apply to all lanes of an affected highway, in both directions of travel.

(4) When determining the need to lower the prima facie speed limit, the local authority shall take the provisions of Section 627 into consideration.

(5) (A) An ordinance or resolution adopted under paragraph (1) shall not be effective until appropriate signs giving notice of the speed limit are erected upon the highway and, in the case of a state highway, until the ordinance *or resolution* is approved by the Department of Transportation and the appropriate signs are erected upon the highway.

(B) For purposes of subparagraph (A) of paragraph (1), school warning signs indicating a speed limit of 15 miles per hour may be placed at a distance up to 500 feet away from school grounds.

(C) For purposes of subparagraph (B) of paragraph (1), school warning signs indicating a speed limit of 25 miles per hour may be placed at any distance between 500 and 1,000 feet away from the school grounds.

(D) A local authority shall reimburse the Department of Transportation for all costs incurred by the department under this subdivision.

*(6) As used in this subdivision, a "business activity district" is that portion of a highway and the property contiguous thereto that includes central or neighborhood downtowns, urban villages, or zoning designations that prioritize commercial land uses at the downtown or neighborhood scale and meets at least three of the following requirements:*

*(A) Retail or dining commercial uses, including outdoor dining, that open directly onto sidewalks adjacent to the highway.*

*(B) Parking, including parallel, diagonal, or perpendicular spaces, located alongside the highway.*

*(C) Traffic control signals or stop signs regulating traffic flow on the highway, located at intervals of no more than 600 feet.*

*(D) Marked crosswalks not controlled by a traffic control device.*

*(E) Pedestrian density greater than one pedestrian per 100 feet of sidewalk during peak hours.*

*(F) Bicycle volume of 10 or more bicycles per hour operating within or passing through during peak hours, including both sidewalk and highway use.*

*SEC. 8. Section 22358.6 is added to the Vehicle Code, to read:*

*22358.6. The Department of Transportation shall, in the next scheduled revision, revise and thereafter maintain the California Manual on Uniform Traffic Control Devices to require the Department of Transportation or a local authority to round speed limits to the nearest five miles per hour of the 85th percentile of the free-flowing traffic. However, in cases in which the speed limit needs to be rounded up to the nearest five miles per hour increment of the 85th-percentile speed, the Department of Transportation or a local authority may decide to instead round down the speed limit to the lower five miles per hour increment. A local authority may*

*additionally lower the speed limit as provided in Sections 22358.7 and 22358.8.*

*SEC. 9. Section 22358.7 is added to the Vehicle Code, to read:*

*22358.7. (a) If a local authority, after completing an engineering and traffic survey, finds that the speed limit is still more than is reasonable or safe, the local authority may, by ordinance or resolution, determine and declare a prima facie speed limit that has been reduced an additional five miles per hour for either of the following reasons:*

*(1) The portion of highway has been designated as a high-injury street.*

*(2) The portion of highway is adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians, especially those from vulnerable groups such as children, seniors, persons with disabilities, and the unhoused.*

*(b) As used in this section, "high-injury" street means a portion of highway that, based on at least the immediately preceding three years of traffic accident data, is identified and has been adopted by the local authority as experiencing a high concentration of traffic-related serious injuries and fatalities.*

*SEC. 10. Section 22358.8 is added to the Vehicle Code, to read:*

*22358.8. If a local authority, after completing an engineering and traffic survey, finds that the speed limit is still more than is reasonable or safe, the local authority may, by ordinance or resolution, retain the current speed limit or restore the immediately prior speed limit if that speed limit was established with an engineering and traffic survey and if a registered engineer has evaluated the section of highway and determined that no significant design changes, with the specific intent of increasing the safe operating speed, have been made to the roadway since completion of the traffic survey that established the prior speed limit.*

*SEC. 11. Section 22359 of the Vehicle Code is amended to read:*

22359. With respect to boundary line streets and highways where portions thereof are within different jurisdictions, ~~no~~ *an* ordinance *or resolution* adopted under Sections 22357 and 22358 shall *not* be effective as to any ~~such~~ portion until all authorities having jurisdiction of the portions of the street concerned have approved the same. This section shall not apply in the case of

boundary line streets consisting of separate roadways within different jurisdictions.

*SEC. 12. Section 40802 of the Vehicle Code is amended to read:*

40802. (a) A "speed trap" is either of the following:

(1) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.

(2) A particular section of a highway with a prima facie speed limit that is provided by this code or by local ordinance *or resolution* under paragraph (1) of subdivision (b) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. This paragraph does not apply to a local street, road, ~~or~~ school ~~zone.~~ *zone, senior zone, or business activity district.*

(b) (1) For purposes of this section, a local street or road is one that is functionally classified as "local" on the "California Road System Maps," that are approved by the Federal Highway Administration and maintained by the Department of Transportation. ~~When a street or road does not appear on the "California Road System Maps," it~~ *It* may *also* be defined as a "local street or road" if it primarily provides access to abutting residential property and meets the following three conditions:

(A) Roadway width of not more than 40 feet.

(B) Not more than one-half of a mile of uninterrupted length. Interruptions shall include official traffic control signals as defined in Section 445.

(C) Not more than one traffic lane in each direction.

(2) For purposes of this section, "school zone" means that area approaching or passing a school building or the grounds thereof that is contiguous to a highway and on which is posted a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. "School zone" also includes the area approaching or passing any school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use

by children if that highway is posted with a standard "SCHOOL" warning sign.

*(3) For purposes of this section, "senior zone" means that area approaching or passing a senior center building or other facility primarily used by senior citizens, or the grounds thereof that is contiguous to a highway and on which is posted a standard "SENIOR" warning sign, pursuant to Section 22352.*

*(4) For purposes of this section, "business activity district" means a section of highway described in paragraph (6) of subdivision (b) of Section 22358.4 in which a standard 25 miles per hour or 20 miles per hour speed limit sign has been posted pursuant to subparagraph (C) of paragraph (1) of subdivision (b) of that section.*

(c) (1) When all of the following criteria are met, paragraph (2) of this subdivision shall be applicable and subdivision (a) shall not be applicable:

(A) When radar is used, the arresting officer has successfully completed a radar operator course of not less than 24 hours on the use of police traffic radar, and the course was approved and certified by the Commission on Peace Officer Standards and Training.

(B) When laser or any other electronic device is used to measure the speed of moving objects, the arresting officer has successfully completed the training required in subparagraph (A) and an additional training course of not less than two hours approved and certified by the Commission on Peace Officer Standards and Training.

(C) (i) The prosecution proved that the arresting officer complied with subparagraphs (A) and (B) and that an engineering and traffic survey has been conducted in accordance with subparagraph (B) of paragraph (2). The prosecution proved that, prior to the officer issuing the notice to appear, the arresting officer established that the radar, laser, or other electronic device conformed to the requirements of subparagraph (D).

(ii) The prosecution proved the speed of the accused was unsafe for the conditions present at the time of alleged violation unless the citation was for a violation of Section 22349, 22356, or 22406.

(D) The radar, laser, or other electronic device used to measure the speed of the accused meets or exceeds the minimal operational standards of the National Highway Traffic Safety Administration,

and has been calibrated within the three years prior to the date of the alleged violation by an independent certified laser or radar repair and testing or calibration facility.

(2) A "speed trap" is either of the following:

(A) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.

(B) (i) A particular section of a highway or state highway with a prima facie speed limit that is provided by this code or by local ordinance *or resolution* under paragraph (1) of subdivision (b) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within one of the following time periods, prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects:

(I) Except as specified in subclause (II), seven years.

(II) If an engineering and traffic survey was conducted more than seven years prior to the date of the alleged violation, and a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred, including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume, ~~10~~ *14* years.

(ii) This subparagraph does not apply to a local street, road, or school ~~zone.~~ *zone, senior zone, or business activity district.*

*SEC. 13. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.*

~~SECTION 1. Section 14033.5 is added to the Government Code, to read:~~

~~14033.5. Beginning June 1, 2022, and every six months thereafter, the department shall convene a committee of external design experts to advise on revisions to the Highway Design Manual.~~

~~SEC. 2. Section 2904.5 is added to the Vehicle Code, to read:~~

~~2904.5. The California Traffic Safety Program shall include a traffic safety monitoring program that identifies and addresses locations with pedestrian- and bicyclist-related crashes, upon appropriation of state funds for this purpose.~~

~~SEC. 3. Section 40802 of the Vehicle Code is amended to read:~~

~~40802. (a) A "speed trap" is either of the following:~~

~~(1) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.~~

~~(2) (A) A particular section of a highway with a prima facie speed limit that is provided by this code or by local ordinance under paragraph (1) of subdivision (b) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. This paragraph does not apply to a local street, road, or school zone.~~

~~(B) If a registered engineer evaluates the section of the highway and finds there has been an increase in traffic-related crashes, the prima facie speed limit may be justified by an engineering and traffic survey conducted every 10 years.~~

~~(b) (1) For purposes of this section, a local street or road is one that is functionally classified as "local" on the "California Road System Maps," that are approved by the Federal Highway Administration and maintained by the Department of Transportation. When a street or road does not appear on the "California Road System Maps," it may be defined as a "local street or road" if it primarily provides access to abutting residential property and meets the following three conditions:~~

~~(A) Roadway width of not more than 40 feet.~~

~~(B) Not more than one-half of a mile of uninterrupted length. Interruptions shall include official traffic control signals as defined in Section 445.~~

~~(C) Not more than one traffic lane in each direction.~~

~~(2) For purposes of this section, "school zone" means that area approaching or passing a school building or the grounds thereof that is contiguous to a highway and on which is posted a standard~~

~~"SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. "School zone" also includes the area approaching or passing any school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children if that highway is posted with a standard "SCHOOL" warning sign.~~

~~(c) (1) When all of the following criteria are met, paragraph (2) of this subdivision shall be applicable and subdivision (a) shall not be applicable:~~

~~(A) When radar is used, the arresting officer has successfully completed a radar operator course of not less than 24 hours on the use of police traffic radar, and the course was approved and certified by the Commission on Peace Officer Standards and Training.~~

~~(B) When laser or any other electronic device is used to measure the speed of moving objects, the arresting officer has successfully completed the training required in subparagraph (A) and an additional training course of not less than two hours approved and certified by the Commission on Peace Officer Standards and Training.~~

~~(C) (i) The prosecution proved that the arresting officer complied with subparagraphs (A) and (B) and that an engineering and traffic survey has been conducted in accordance with subparagraph (B) of paragraph (2). The prosecution proved that, prior to the officer issuing the notice to appear, the arresting officer established that the radar, laser, or other electronic device conformed to the requirements of subparagraph (D).~~

~~(ii) The prosecution proved the speed of the accused was unsafe for the conditions present at the time of alleged violation unless the citation was for a violation of Section 22349, 22356, or 22406.~~

~~(D) The radar, laser, or other electronic device used to measure the speed of the accused meets or exceeds the minimal operational standards of the National Highway Traffic Safety Administration, and has been calibrated within the three years prior to the date of the alleged violation by an independent certified laser or radar repair and testing or calibration facility.~~

~~(2) A "speed trap" is either of the following:~~

~~(A) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined~~

~~in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.~~

~~(B) (i) A particular section of a highway or state highway with a prima facie speed limit that is provided by this code or by local ordinance under paragraph (1) of subdivision (b) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within one of the following time periods, prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects:~~

~~(I) Except as specified in subclause (II) or (III), seven years.~~

~~(II) If an engineering and traffic survey was conducted more than seven years prior to the date of the alleged violation, and a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred, including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume, 10 years.~~

~~(III) If a registered engineer evaluates the section of the highway or state highway and finds there has been an increase in traffic-related crashes, the prima facie speed limit may be justified by an engineering and traffic survey conducted every 15 years.~~

~~(ii) This subparagraph does not apply to a local street, road, or school zone.~~

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**REVISIONS:**

**Heading—Line 4.**

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AMENDED IN ASSEMBLY APRIL 29, 2021

AMENDED IN ASSEMBLY APRIL 15, 2021

AMENDED IN ASSEMBLY MARCH 22, 2021

CALIFORNIA LEGISLATURE—2021–22 REGULAR SESSION

# ASSEMBLY BILL No. 550

**Introduced by Assembly ~~Member Chiu~~ *Members Chiu and Friedman***
(Principal coauthor: Senator Wiener)
**(Coauthors: Assembly Members ~~Ting~~ *Lee, Ting,* and Wicks)**

February 10, 2021

An act to amend, repeal, and add Section 70615 of the Government Code, and to add and repeal Article 3 (commencing with Section 22425) of Chapter 7 of Division 11 of the Vehicle Code, relating to vehicles.

LEGISLATIVE COUNSEL'S DIGEST

AB 550, as amended, Chiu. Vehicles: Speed Safety System Pilot Program.

Existing law establishes a basic speed law that prohibits a person from driving a vehicle upon a highway at a speed greater than is reasonable or prudent given the weather, visibility, traffic, and highway conditions, and in no event at a speed that endangers the safety of persons or property.

This bill would authorize, until January 1, 2027, the Cities of Los Angeles, Oakland, San Jose, ~~two other cities~~ *one city* in southern California, and the City and County of San Francisco to establish the Speed Safety System Pilot Program for speed limit enforcement in certain areas, if the system meets specified requirements, including that the presence of a fixed or mobile system is clearly identified. The bill would require the participating cities or city and county to adopt a Speed

Safety System Use Policy and a Speed Safety System Impact Report before implementing the program, and would require the city or city and county to engage in a public information campaign at least 30 days before implementation of the program, including information relating to when the systems would begin detecting violations and where the systems would be utilized. The bill would require the participating cities or city and county to issue warning notices rather than notices of violations for violations detected within the first 30 calendar days of the program. The bill would require the participating cities or city and county to develop uniform guidelines for, among other things, the processing and storage of confidential information. The bill would designate all photographic, video, or other visual or administrative records made by a system as confidential, and would only authorize public agencies to use and allow access to these records for specified purposes.

This bill would specify that any violation of a speed law recorded by a speed safety system authorized by these provisions would be subject only to the provided civil penalties. The bill would, among other things, provide for the issuance of a notice of violation, an initial review, an administrative hearing, and an appeals process, as specified, for a violation under this program. The bill would require any program created pursuant to these provisions to offer a diversion program for indigent speed safety system violation recipients, as specified. The bill would require a city or city and county participating in the pilot program to submit reports to the Legislature, as specified, to evaluate the speed safety system to determine the system‘s impact on street safety and economic impact on the communities where the system is utilized.

Existing law establishes a $25 filing fee for specified appeals and petitions.

This bill would require a $25 filing fee for an appeal challenging a notice of violation issued as a result of a speed safety system until January 1, 2027.

This bill would make legislative findings and declarations as to the necessity of a special statute for the Cities of Los Angeles, Oakland, San Jose, and the City and County of San Francisco.

Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest.

This bill would make legislative findings to that effect.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

*The people of the State of California do enact as follows:*

SECTION 1. The Legislature finds and declares all of the following:

(a) Speed is a major factor in traffic collisions that result in fatalities or injuries.

(b) State and local agencies employ a variety of methods to reduce speeding, including traffic engineering, education, and enforcement.

(c) Traffic speed enforcement is critical to efforts in California to reduce factors that contribute to traffic collisions that result in fatalities or injuries.

(d) However, traditional enforcement methods have had a well-documented disparate impact on communities of color, and implicit or explicit racial bias in police traffic stops puts drivers of color at risk.

(e) Additional tools, including speed safety systems, are available to assist cities and the state in addressing excessive speeding and speed-related crashes.

(f) Speed safety systems offer a high rate of detection, and, in conjunction with education and traffic engineering, can significantly reduce speeding, improve traffic safety, and prevent traffic-related fatalities and injuries, including roadway worker fatalities.

(g) Multiple speed safety system programs implemented in other states and cities outside of California have proven successful in reducing speeding and addressing traffic safety concerns.

(h) The Transportation Agency's "CalSTA Report of Findings: AB 2363 Zero Traffic Fatalities Task Force," issued in January 2020, concluded that international and domestic studies show that speed safety systems are an effective countermeasure to speeding that can deliver meaningful safety improvements, and identified several policy considerations that speed safety system program guidelines could consider.

(i) In a 2017 study, the National Transportation Safety Board (NTSB) analyzed studies of speed safety system programs, and

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

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

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

(*l*) Enforcing speed limits using speed safety systems on streets ~~and in highway work zones~~ where speeding drivers create dangerous roadway environments is a reliable and cost-effective means to prevent further fatalities and injuries.

SEC. 2. Section 70615 of the Government Code is amended to read:

70615. The fee for filing any of the following appeals to the superior court is twenty-five dollars ($25):

(a) An appeal of a local agency's decision regarding an administrative fine or penalty under Section 53069.4.

(b) An appeal under Section 40230 of the Vehicle Code of an administrative agency's decision regarding a parking violation.

(c) An appeal under Section 99582 of the Public Utilities Code of a hearing officer's determination regarding an administrative penalty for fare evasion or a passenger conduct violation.

(d) A petition under Section 186.35 of the Penal Code challenging a law enforcement agency's inclusion of a person's information in a shared gang database.

(e) An appeal under Section 22428 of the Vehicle Code of a hearing officer's determination regarding a civil penalty for an

automated speed violation, as defined in Section 22425 of the Vehicle Code.

(f) This section shall remain in effect only until January 1, 2027, and as of that date is repealed.

SEC. 3. Section 70615 is added to the Government Code, to read:

70615. The fee for filing any of the following appeals to the superior court is twenty-five dollars ($25):

(a) An appeal of a local agency's decision regarding an administrative fine or penalty under Section 53069.4.

(b) An appeal under Section 40230 of the Vehicle Code of an administrative agency's decision regarding a parking violation.

(c) An appeal under Section 99582 of the Public Utilities Code of a hearing officer's determination regarding an administrative penalty for fare evasion or a passenger conduct violation.

(d) A petition under Section 186.35 of the Penal Code challenging a law enforcement agency's inclusion of a person's information in a shared gang database.

(e) This section shall become operative on January 1, 2027.

SEC. 4. Article 3 (commencing with Section 22425) is added to Chapter 7 of Division 11 of the Vehicle Code, to read:

Article 3. Speed Safety System Pilot ~~Program: Automated Speed Enforcement System~~ *Program*

22425. (a) As used in this article, the following definitions shall apply:

(1) "Automated speed violation" means a violation of a speed law detected by a speed safety system operated pursuant to this article.

(2) "Indigent" shall have the same meaning as defined in subdivision (c) of Section 40220.

(3) "Local department of transportation" means a city or city and county's department of transportation or, if a city or city and county does not have a department of transportation, their administrative division, including, but not limited to, a public works department that administers transportation and traffic matters under this code.

(4) "Speed safety system" or "system" means a fixed or mobile radar or laser system or any other electronic device that utilizes

automated equipment to detect a violation of speeding laws and is designed to obtain a clear photograph, video recording, or other visual image of a vehicle license plate.

(b) (1) The Cities of Los Angeles, Oakland, San Jose, ~~two~~ *one* southern California ~~cities,~~ *city,* and the City and County of San Francisco may establish a program utilizing a speed safety system for speed limit enforcement, to be operated by a local department of transportation, in the following areas:

(A) Within 2,500 feet of a school.

(B) Within 2,500 feet of a senior zone.

(C) Within 2,500 feet of a public park.

(D) Within 2,500 feet of a recreational center.

(E) On a street meeting the standards of a high injury network, as defined by the Department of Transportation.

(2) A municipality operating a speed safety system pilot program under this article may have speed safety systems operational on no more than 15 percent of the municipality's streets at any time during the pilot program.

*(3) (A) A municipality operating a speed safety pilot program under this article may have the following number of speed safety systems operational at any time during the pilot program:*

*(i) For a jurisdiction with a population over 3,000,000, no more than 125 systems.*

*(ii) For a jurisdiction with a population between 800,000 and 3,000,000, inclusive, no more than 33 systems.*

*(iii) For a jurisdiction with a population of 300,000 up to 800,000, no more than 18 systems.*

*(iv) For a jurisdiction with a population of less than 300,000, no more than 9 systems.*

*(B) For purposes of this paragraph, a "speed safety system" may include up to two fixed or mobile radar or laser systems at the same location in order to detect speed violations on two-way or multidirectional streets.*

(c) The Speed Safety System Pilot Program shall not be operated on any California state route, including all freeways and expressways, United States Highway, Interstate Highway or any public road in an unincorporated county where the Commissioner of the California Highway Patrol has full responsibility and primary jurisdiction for the administration and enforcement of the laws,

and for the investigation of traffic accidents, pursuant to Section 2400.

(d) If a school zone is located on a street or portion of a street that is eligible for a speed safety system pursuant to subdivision (b), and the posted speed limit is 30 miles per hour or higher when children are not present, a city or city and county may operate a speed safety system two hours before the regular school session begins and two hours after regular school session concludes.

(e) A speed safety system for speed limit enforcement may be utilized pursuant to subdivision (b) if the program meets all of the following requirements:

(1) Clearly identifies the presence of the speed safety system by signs stating "Photo Enforced," along with the posted speed limit within 500 feet of the system. The signs shall be visible to traffic traveling on the street from the direction of travel for which the system is utilized, and shall be posted at all locations as may be determined necessary by the Department of Transportation through collaboration with the California Traffic Control Devices Committee.

(2) Identifies the streets or portions of streets that have been approved for enforcement using a speed safety system and the hours of enforcement on the municipality's internet website, which shall be updated whenever the municipality changes locations of enforcement.

(3) Ensures that the speed safety system is regularly inspected and certifies that the system is installed and operating properly. Each camera unit shall be calibrated in accordance with the manufacturer's instructions, and at least once per year by an independent calibration laboratory. Documentation of the regular inspection, operation, and calibration of the system shall be retained until the date on which the system has been permanently removed from use.

(4) Utilizes fixed *or mobile* speed safety systems that provide real-time notification when violations are detected.

(f) Prior to enforcing speed laws utilizing speed safety systems, the city or city and county shall do both of the following:

(1) Administer a public information campaign for at least 30 calendar days prior to the commencement of the program, which shall include public announcements in major media outlets and press releases. The public information campaign shall include the

draft Speed Safety System Use Policy pursuant to subdivision (g), the Speed Safety System Impact Report pursuant to subdivision (h), information on when systems will begin detecting violations, the streets, or portions of streets, where systems will be utilized, and the city's internet website, where additional information about the program can be obtained. Notwithstanding the above, no further public announcement by the municipality shall be required for additional systems that may be added to the program.

(2) Issue warning notices rather than notices of violation for violations detected by the speed safety systems during the first 30 calendar days of enforcement under the program. If additional systems are utilized on additional streets after the initial program implementation, the city or city and county shall issue warning notices rather than notices of violation for violations detected by the new speed safety systems during the first 30 calendar days of enforcement for the additional streets added to the program.

(g) The local governing body shall adopt a Speed Safety System Use Policy before entering into an agreement regarding a speed safety system, purchasing or leasing equipment for a program, or implementing a program. The Speed Safety System Use Policy shall include the specific purpose for the system, the uses that are authorized, the rules and processes required prior to that use, and the uses that are prohibited. The policy shall include the data or information that can be collected by the speed safety system and the individuals who can access or use the collected information, and the rules and processes related to the access or use of the information. The policy shall also include provisions for protecting data from unauthorized access, data retention, public access, third-party data sharing, training, auditing, and oversight to ensure compliance with the Speed Safety System Use Policy. The Speed Safety System Use Policy shall be made available for public review, including, but not limited to, by posting it on the local governing body's internet website at least 30 calendar days prior to adoption by the local governing body.

(h) (1) The local governing body also shall approve a Speed Safety System Impact Report prior to implementing a program. The Speed Safety System Impact Report shall include all of the following information:

(A) Assessment of potential impact of the speed safety system on civil liberties and civil rights and any plans to safeguard those public rights.

(B) Description of the speed safety system and how it works.

(C) Fiscal costs for the speed safety system, including program establishment costs, ongoing costs, and program funding.

(D) If potential deployment locations of systems are predominantly in low-income neighborhoods, a determination of why these locations experience high fatality and injury collisions due to unsafe speed.

(E) Locations where the system may be deployed and traffic data for these locations.

(F) Proposed purpose of the speed safety system.

(2) The Speed Safety System Impact Report shall be made available for public review at least 30 calendar days prior to adoption by the governing body.

(3) The local governing body shall consult and work collaboratively with relevant local stakeholder organizations, including racial equity, privacy protection, and economic justice groups, in developing the Speed Safety System Use Policy and Speed Safety System Impact Report.

(i) The municipality shall develop uniform guidelines for both of the following:

(1) The screening and issuing of notices of violation.

(2) The processing and storage of confidential information and procedures to ensure compliance with confidentiality requirements.

(j) Notices of violation issued pursuant to this section shall include a clear photograph, video recording, or other visual image of the license plate and rear of the vehicle only, the Vehicle Code violation, the camera location, and the date and time when the violation occurred. Notices of violation shall exclude images of the rear window area of the vehicle.

(k) The photographic, video, or other visual evidence stored by a speed safety system does not constitute an out-of-court hearsay statement by a declarant under Division 10 (commencing with Section 1200) of the Evidence Code.

(*l*) (1) Notwithstanding Sections 6253 and 6262 of the Government Code, or any other law, photographic, video, or other visual or administrative records made by a system shall be confidential. Public agencies shall use and allow access to these

records only for the purposes authorized by this article or to assess the impacts of the system.

(2) Confidential information obtained from the Department of Motor Vehicles for the administration of speed safety systems and enforcement of this article shall be held confidential, and shall not be used for any other purpose.

(3) Except for court records described in Section 68152 of the Government Code, or as provided in paragraph (4), the confidential records and evidence described in paragraphs (1) and (2) may be retained for up to 60 days after final disposition of the notice of violation. The municipality may adopt a retention period of less than 60 days in the Speed Safety System Use Policy. Administrative records described in paragraph (1) may be retained for up to 120 days after final disposition of the notice of violation. Notwithstanding any other law, the confidential records and evidence shall be destroyed in a manner that maintains the confidentiality of any person included in the record or evidence.

(4) Notwithstanding Section 26202.6 of the Government Code, photographic, video, or other visual evidence that is obtained from a speed safety system that does not contain evidence of a speeding violation shall be destroyed within five business days after the evidence was first obtained. The use of facial recognition technology in conjunction with a speed safety system shall be prohibited.

(5) Information collected and maintained by a municipality using a speed safety system shall only be used to administer an program, and shall not be disclosed to any other persons, including, but not limited to, any other state or federal government agency or official for any other purpose, except as required by state or federal law, court order, or in response to a subpoena in an individual case or proceeding.

(m) Notwithstanding subdivision (*l*), the registered owner or an individual identified by the registered owner as the driver of the vehicle at the time of the alleged violation shall be permitted to review the photographic, video, or visual evidence of the alleged violation.

(n) A contract between the municipality and a manufacturer or supplier of speed safety systems shall allow the local authority to purchase materials, lease equipment, and contract for processing services from the manufacturer or supplier based on the services

rendered on a monthly schedule or another schedule agreed upon by the municipality and contractor. The contract shall not include provisions for payment or compensation based on the number of notices of violation issued by a designated municipal employee, or as a percentage of revenue generated, from the use of the system. The contract shall include a provision that all data collected from the speed safety systems is confidential, and shall prohibit the manufacturer or supplier of speed safety systems from sharing, repurposing, or monetizing collected data, except as specifically authorized in this article. The municipality shall oversee and maintain control over all enforcement activities, including the determination of when a notice of violation should be issued.

(o) Notwithstanding subdivision (n), a municipality may contract with a vendor for the processing of notices of violation after a designated municipal employee has issued a notice of violation. The vendor shall be a separate legal and corporate entity from, and unrelated or affiliated in any manner with, the manufacturer or supplier of speed safety systems used by the municipality. Any contract between the municipality and a vendor to provide processing services may include a provision for the payment of compensation based on the number of notices of violation processed by the vendor.

(p) (1) A speed safety system shall no longer be operated on any given street if within the first 18 months of installation of a system, at least one of the following thresholds has not been met:

(A) Percentage of automated speed violations decreased by at least 25 percent.

(B) Percentage of violators who received two or more violations decreased by at least 50 percent.

(2) This subdivision shall not apply if a city or city and county adds traffic-calming measures to the street. “Traffic-calming measures” include, but are not limited to:

(A) Bicycle lanes.

(B) Chicanes.

(C) Chokers.

(D) Curb extensions.

(E) Median islands.

(F) Raised crosswalks.

(G) Road diets.

(H) Roundabouts.

(I) Speed humps or speed tables.

(J) Traffic circles.

(3) A city or city and county may continue to operate a speed safety system with a fixed or mobile vehicle speed feedback sign while traffic-calming measures are being planned or constructed, but shall halt their use if construction has not begun within two years.

(4) If the percentage of violations has not decreased by the metrics identified pursuant to paragraph (1) within one year after traffic-calming measures have completed construction, a city or county shall either construct additional traffic-calming measures or cease operation of the system on that street.

22426. (a) Notwithstanding any other law, a violation of Section 22350, or any other speed law pursuant to this chapter that is recorded by a speed safety system authorized pursuant to Section 22425 shall be subject only to a civil penalty, as provided in subdivision (d), and shall not result in the department suspending or revoking the privilege of a violator to drive a motor vehicle or in a violation point being assessed against the violator.

(b) The speed safety system shall capture images of the rear license plate of vehicles that are traveling 11 miles per hour or more over the posted speed limit and notices of violation shall only be issued to vehicles based on that evidence.

(c) No more than one notice of violation shall be issued for a violation recorded from a specific license plate within a 24-hour period.

(d) A civil penalty shall be assessed as follows:

(1) Fifty dollars ($50) for a speed violation from 11 up to 15 miles per hour over the posted speed limit.

(2) One hundred dollars ($100) for a speed violation from 15 up to 25 miles per hour over the posted speed limit.

(3) Two hundred dollars ($200) for a speed violation from 25 up to 100 miles per hour over the posted speed limit.

(4) Five hundred dollars ($500) for a speed violation 100 miles per hour or greater over the posted speed limit.

(e) A civil penalty shall not be assessed against an authorized emergency vehicle.

(f) The written notice of violation shall be issued to the registered owner of the vehicle within 15 calendar days of the date

of the violation. The notice of violation shall include all of the following information:

(1) The violation, including reference to the speed law that was violated.

(2) The date, approximate time, and location where the violation occurred.

(3) The vehicle license number and the name and address of the registered owner of the vehicle.

(4) A statement that payment is required to be made no later than 30 calendar days from the date of mailing of the notice of violation, or that the violation may be contested pursuant to Section 22427.

(5) The amount of the civil penalty due for that violation and the procedures for the registered owner, lessee, or rentee to pay the civil penalty or to contest the notice of violation.

(6) An affidavit of nonliability, and information of what constitutes nonliability, information as to the effect of executing the affidavit, and instructions for returning the affidavit to the processing agency. If the affidavit of nonliability is returned to the processing agency within 30 calendar days of the mailing of the notice of violation, together with proof of a written lease or rental agreement between a bona fide rental or leasing company and its customer that identifies the rentee or lessee, the processing agency shall serve or mail a notice of violation to the rentee or lessee identified in the affidavit of nonliability.

(g) Mobile radar or laser systems shall not be used until at least two years after the installation of the first fixed radar or laser system.

(h) (1) Revenues derived from any program utilizing a speed safety system for speed limit enforcement shall first be used to recover program costs. Program costs include, but are not limited to the construction of traffic calming measures for the purposes of complying with subdivision (p) of Section 22425, the installation of speed safety systems, the adjudication of violations, and reporting requirements as specified in this section.

(2) Jurisdictions shall maintain their existing commitment of local funds for traffic-calming measures in order to remain authorized to participate in the pilot program, and shall annually expend not less than the annual average of expenditures for traffic-calming measures during the 2016–17, 2017–18, and

2018–19 fiscal years. For purposes of this subdivision, in calculating average expenditures on traffic-calming measures, restricted funds that may not be available on an ongoing basis, including those from voter-approved bond issuances or tax measures, shall not be included. Any excess revenue shall be used for traffic calming measures within three years. If traffic-calming measures are not planned or constructed after the third year, then excess revenue shall revert to the Active Transportation Program established pursuant to Chapter 8 (commencing with Section 2380) of the Streets and Highways Code, to be allocated by the California Transportation Commission pursuant to Section 2381 of the Streets and Highways Code.

22427. (a) For a period of 30 calendar days from the mailing of a notice of violation, a person may request an initial review of the notice by the issuing agency. The request may be made by telephone, in writing, electronically, or in person. There shall be no charge for this review. If, following the initial review, the issuing agency is satisfied that the violation did not occur, or that extenuating circumstances make dismissal of the notice of violation appropriate in the interest of justice, the issuing agency shall cancel the notice of violation. The issuing agency shall advise the processing agency, if any, of the cancellation. The issuing agency or the processing agency shall mail the results of the initial review to the person contesting the notice, and, if cancellation of the notice does not occur following that review, include a reason for that denial, notification of the ability to request an administrative hearing, and notice of the procedure adopted pursuant to paragraph (2) of subdivision (b) for waiving prepayment of the civil penalty based upon an inability to pay.

(b) (1) If the person contesting the notice of violation is dissatisfied with the results of the initial review, the person may, no later than 21 calendar days following the mailing of the results of the issuing agency's initial review, request an administrative hearing of the violation. The request may be made by telephone, in writing, electronically, or in person.

(2) The person requesting an administrative hearing shall pay the amount of the civil penalty to the processing agency. The issuing agency shall adopt a written procedure to allow a person to request an administrative hearing without payment of the civil

penalty upon satisfactory proof of an inability to pay the amount due.

(3) The administrative hearing shall be held within 90 calendar days following the receipt of a request for an administrative hearing. The person requesting the hearing may request one continuance, not to exceed 21 calendar days.

(c) The administrative hearing process shall include all of the following:

(1) The person requesting a hearing shall have the choice of a hearing by mail, video conference, or in person. An in-person hearing shall be conducted within the jurisdiction of the issuing agency.

(2) If the person requesting a hearing is a minor, that person shall be permitted to appear at a hearing or admit responsibility for the automated speed violation without the appointment of a guardian. The processing agency may proceed against the minor in the same manner as against an adult.

(3) The administrative hearing shall be conducted in accordance with written procedures established by the issuing agency and approved by the governing body or chief executive officer of the issuing agency. The hearing shall provide an independent, objective, fair, and impartial review of contested automated speed violations.

(4) (A) The issuing agency's governing body or chief executive officer shall appoint or contract with qualified independent examiners or administrative hearing providers that employ qualified independent examiners to conduct the administrative hearings. Examiners shall demonstrate the qualifications, training, and objectivity necessary to conduct a fair and impartial review. The examiner shall be separate and independent from the notice of violation collection or processing function. An examiner's continued employment, performance evaluation, compensation, and benefits shall not, directly or indirectly, be linked to the amount of civil penalties collected by the examiner or the number or percentage of violations upheld by the examiner.

(B) (i) Examiners shall have a minimum of 20 hours of training. The examiner is responsible for the costs of the training. The issuing agency may reimburse the examiner for those costs. Training may be provided through any of the following:

(I) An accredited college or university.

(II) A program conducted by the Commission on Peace Officer Standards and Training.

(III) A program conducted by the American Arbitration Association or a similar organization.

(IV) Any program approved by the governing body or chief executive officer of the issuing agency, including a program developed and provided by, or for, the agency.

(ii) Training programs may include topics relevant to the administrative hearing, including, but not limited to, applicable laws and regulations, enforcement procedures, due process, evaluation of evidence, hearing procedures, and effective oral and written communication. Upon the approval of the governing body or chief executive officer of the issuing agency, up to 12 hours of relevant experience may be substituted for up to 12 hours of training. Up to eight hours of the training requirements described in this subparagraph may be credited to an individual, at the discretion of the governing body or chief executive officer of the issuing agency, based upon training programs or courses described in this subparagraph that the individual attended within the last five years.

(5) The designated municipal employee who issues a notice of violation shall not be required to participate in an administrative hearing. The issuing agency shall not be required to produce any evidence other than, in proper form, the notice of violation or copy thereof, including the photograph, video, or other visual image of the vehicle's license plate, and information received from the Department of Motor Vehicles identifying the registered owner of the vehicle. The documentation in proper form shall be prima facie evidence of the violation.

(6) The examiner's final decision following the administrative hearing may be personally delivered to the person by the examiner or sent by first-class mail.

(7) Following a determination by the examiner that a person has committed the violation, the examiner may, consistent with the written guidelines established by the issuing agency, allow payment of the civil penalty in installments, or an issuing agency may allow for deferred payment or payments in installments, if the person provides evidence satisfactory to the examiner or the issuing agency, as the case may be, of an inability to pay the civil penalty in full. If authorized by the governing body of the issuing

agency, the examiner may permit the performance of community service in lieu of payment of the civil penalty.

(8) If a notice of violation is dismissed following an administrative hearing, any civil penalty, if paid, shall be refunded by the issuing agency within 30 days.

22428. (a) Within 30 days after personal delivery or mailing of the final decision described in subdivision (c) of Section 22427, the contestant may seek review by filing an appeal to the superior court, where the case shall be heard de novo, except that the contents of the processing agency's file in the case on appeal shall be received in evidence. A copy of the notice of violation shall be admitted into evidence as prima facie evidence of the facts stated in the notice. A copy of the notice of appeal shall be served in person or by first-class mail upon the processing agency by the contestant. For purposes of computing the 30-day period, Section 1013 of the Code of Civil Procedure shall be applicable. A proceeding under this subdivision is a limited civil case.

(b) The fee for filing the notice of appeal shall be as provided in Section 70615 of the Government Code. The court shall request that the issuing agency's file on the case be forwarded to the court, to be received within 15 calendar days of the request. The court shall notify the contestant of the appearance date by mail or personal delivery. The court shall retain the fee under Section 70615 of the Government Code regardless of the outcome of the appeal. If the appellant prevails, this fee and any payment of the civil penalty shall be promptly refunded by the issuing agency in accordance with the judgment of the court.

(c) The conduct of the hearing on appeal under this section is a subordinate judicial duty that may be performed by a commissioner or other subordinate judicial officer at the direction of the presiding judge of the court.

(d) If a notice of appeal of the examiner's decision is not filed within the period set forth in subdivision (a), the decision shall be deemed final.

(e) If the civil penalty has not been paid and the decision is adverse to the contestant, the processing agency may, promptly after the decision becomes final, proceed to collect the civil penalty under Section 22426.

22429. (a) A city or city and county shall offer a diversion program for indigent speed safety system violation recipients, to

perform community service in lieu of paying the penalty for an automated speed system violation.

(b) A city or city and county shall offer the ability for indigent speed safety system violation recipients to pay applicable fines and penalties over a period of time under a payment plan with monthly installments of no more than twenty-five dollars ($25) and shall limit the processing fee to participate in a payment plan to five dollars ($5) or less.

(c) Notwithstanding subdivisions (a) and (b), a city or city and county shall reduce the applicable fines and penalties by 80 percent for indigent persons, and by 50 percent for individuals 200 percent above the federal poverty level.

22430. A city or city and county shall each develop and submit to their respective governing body a Speed Safety System Report, two years after initial implementation of the program and at the end of the pilot program that includes all of the following information:

(a) A description of how the speed safety system was used.

(b) Whether and how often any system data was shared with outside entities, the name of any recipient entity, the type or types of data disclosed, and the legal reason for the disclosure.

(c) A summary of any community complaints or concerns about the speed safety system.

(d) Results of any internal audits, information about any violations of the Speed Safety System Use Policy, and any actions taken in response.

(e) Information regarding the impact the speed safety system has had on the streets where the speed safety system was deployed.

(f) A summary of any public record act requests.

(g) A list of system locations that did not meet the threshold for continuance of a program pursuant to paragraph (1) of subdivision (p) of Section 22425, and whether further traffic-calming measures are in planning or construction, or there is a decision to halt operation of the program in those locations.

22431. Any city or city and county that used speed safety systems shall, on or before March 1 of the fifth year in which the system has been implemented, submit to the transportation committees of the Legislature an evaluation of the speed safety system in their respective jurisdictions to determine the system’s impact on street safety and the system’s economic impact on the

communities where the system is utilized. The report shall be made available on the internet websites of the respective jurisdictions and shall include all of the following information:

(a) Data, before and after implementation of the system, on the number and proportion of vehicles speeding from 11 to 19 miles per hour over the legal speed limit, inclusive, from 20 to 29 miles per hour over the legal speed limit, inclusive, from 30 to 39 miles per hour over the legal speed limit, inclusive, and every additional 10 miles per hour increment thereafter on a street or portion of a street in which an system is used to enforce speed limits. To the extent feasible, the data should be collected at the same time of day, day of week, and location.

(b) The number of notices of violation issued under the program by month and year, the corridors or locations where violations occurred, and the number of vehicles with two or more violations in a monthly period and a yearly period.

(c) Data, before and after implementation of the system, on the number of traffic collisions that occurred where speed safety systems are used, relative to citywide data, and the transportation mode of the parties involved. The data on traffic collisions shall be categorized by injury severity, such as property damage only, complaint of pain, other visible injury, or severe or fatal injury.

(d) The number of violations paid, the number of delinquent violations, and the number of violations for which an initial review is requested. For the violations in which an initial review was requested, the report shall indicate the number of violations that went to initial review, administrative hearing, and de novo hearing, the number of notices that were dismissed at each level of review, and the number of notices that were not dismissed after each level of review.

(e) The costs associated with implementation and operation of the speed safety systems, and revenues collected by each jurisdiction.

(f) A racial and economic equity impact analysis, developed in collaboration with local racial justice and economic equity stakeholder groups.

22432. This article shall remain in effect only until January 1, 2027, and as of that date is repealed.

SEC. 5. The Legislature finds and declares that a special statute is necessary and that a general statute cannot be made applicable

within the meaning of Section 16 of Article IV of the California Constitution because of the unique circumstances with traffic speed enforcement in southern California, the Cities of Los Angeles, Oakland, and San Jose, and the City and County of San Francisco.

SEC. 6. The Legislature finds and declares that Section 4 of this act, which adds Section 22425 to the Vehicle Code, imposes a limitation on the public's right of access to the meetings of public bodies or the writings of public officials and agencies within the meaning of Section 3 of Article I of the California Constitution. Pursuant to that constitutional provision, the Legislature makes the following findings to demonstrate the interest protected by this limitation and the need for protecting that interest:

To protect the privacy interests of persons who are issued notices of violation under a speed safety systems pilot program, the Legislature finds and declares that the photographic, video, or other visual or administrative records generated by the program shall be confidential, and shall be made available only to alleged violators and to governmental agencies solely for the purpose of enforcing these violations and assessing the impact of the use of speed safety systems, as required by this act.

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**CORRECTIONS:**

**Heading—Last amended date.**

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*Urban Village by the Bay*

ALBANY CALIFORNIA

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ALBANY, CA 94706
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May 17, 2021

The Honorable Laura Friedman, Chair
Assembly Committee on Transportation
State Capitol Building
Sacramento, CA 95814

**RE: AB 43 (Friedman): Traffic safety – SUPPORT**

Dear Assemblymember Friedman,

The City of Albany is pleased to support AB 43, which has been referred to the Assembly Transportation Committee. We thank you for authoring this legislation, and urge members of the committee to vote "AYE".

According to the National Transportation Safety Board, speeding accounts for nearly a third of all traffic fatalities. AB 43 implements policy recommendations from the California State Transportation Agency as outlined in the Zero Traffic Fatalities Task Force by providing for more flexibility on setting speed limits based on safety. This bill requires traffic surveyors to take into account the presence of vulnerable groups, including children, seniors, the unhoused and persons with disabilities when setting speed limits. It permits cities to lower speed limits beyond the 85th percentile on streets with high injuries and fatalities, ensures they will never again have to raise a speed limit on any road, and limits the need for updated traffic surveys on certain streets. It further provides for greater flexibility in setting school speed limits to protect children.

AB 43 is an impactful legislative fix for a decades-old methodology in setting speed limits. Reducing speed limits has been shown to reduce both injuries and fatalities on the road. According to the University of California Institute of Traffic Studies, research has shown reducing speed limits on limited access roads by 5 miles per hour can reduce injuries between 8% and 15%, with some studies finding reductions as great as 28% and 39%. A range of research also suggests lowering speed limits may result in the number of fatalities dropping by 10% to 30%, with one outlier study showing an 80% reduction in fatalities. It is time for us to recognize and implement slower speeds on local roadways, backed by research and engineering. For these reasons, we urge your support of this important measure.

Sincerely,

Ge'Nell Gary, Mayor
City of Albany

Cc: Members, Assembly Committee on Transportation

*Urban Village by the Bay*

ALBANY CALIFORNIA

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May 17, 2021

Assemblymember David Chiu
State Capitol, Room 4112
Sacramento, CA 95814

**RE: Support for AB 550 (Chiu) – The Safe Streets and Work Zones Act of 2021**

Dear Assemblymember Chiu,

The City of Albany writes in strong support of Assembly Bill 550 – The Safe Streets and Work Zones Act of 2021. AB 550 protects the safety of vulnerable travelers and workers on California roads by giving several cities the option of creating speed safety pilot programs. This urgent measure is desperately needed to stem the tide of traffic violence in the state and protect drivers, pedestrians, cyclists, and workers traveling on our roadways.

Every year for the past five years, over 1,000 Californians have died in speed-related traffic collisions. Tens of thousands more have been injured. Moreover, despite the pandemic and related drop in driving, deaths from traffic incidents actually rose 8 percent from 2019 to 2020. Speeding is incredibly dangerous – it is the number one factor in crash severity. Eight out of ten people hit by a car going 40 mph or higher will die from their injuries.

Numerous empirical studies show that speed safety systems reduce speeding, crashes, injuries, and fatalities. AB 550 includes clear guardrails to protect privacy and equity. Citations under any pilot program will be civil in nature – not criminal – and will not result in a point on a driver's record. Jurisdictions must also offer diversion options for low-income drivers unable to pay the full fine.

Traditional police enforcement of traffic laws has frequently put drivers of color at risk from implicit and explicit bias. Recent studies have shown that Black drivers in California are stopped by police at 2.5 times the rate of whites and are searched three times as often. This bill proposes an alternative, administrative-based model for speed detection that will protect public safety while being responsive to community needs. California must provide communities with the option to pilot this public safety tool in order to create the expectation of regular speed checking on the most dangerous streets.

AB 550 will prevent future deaths on our streets. For these reasons, the City of Albany is pleased to support AB 550.

Sincerely,

Ge'Nell Gary, Mayor
City of Albany