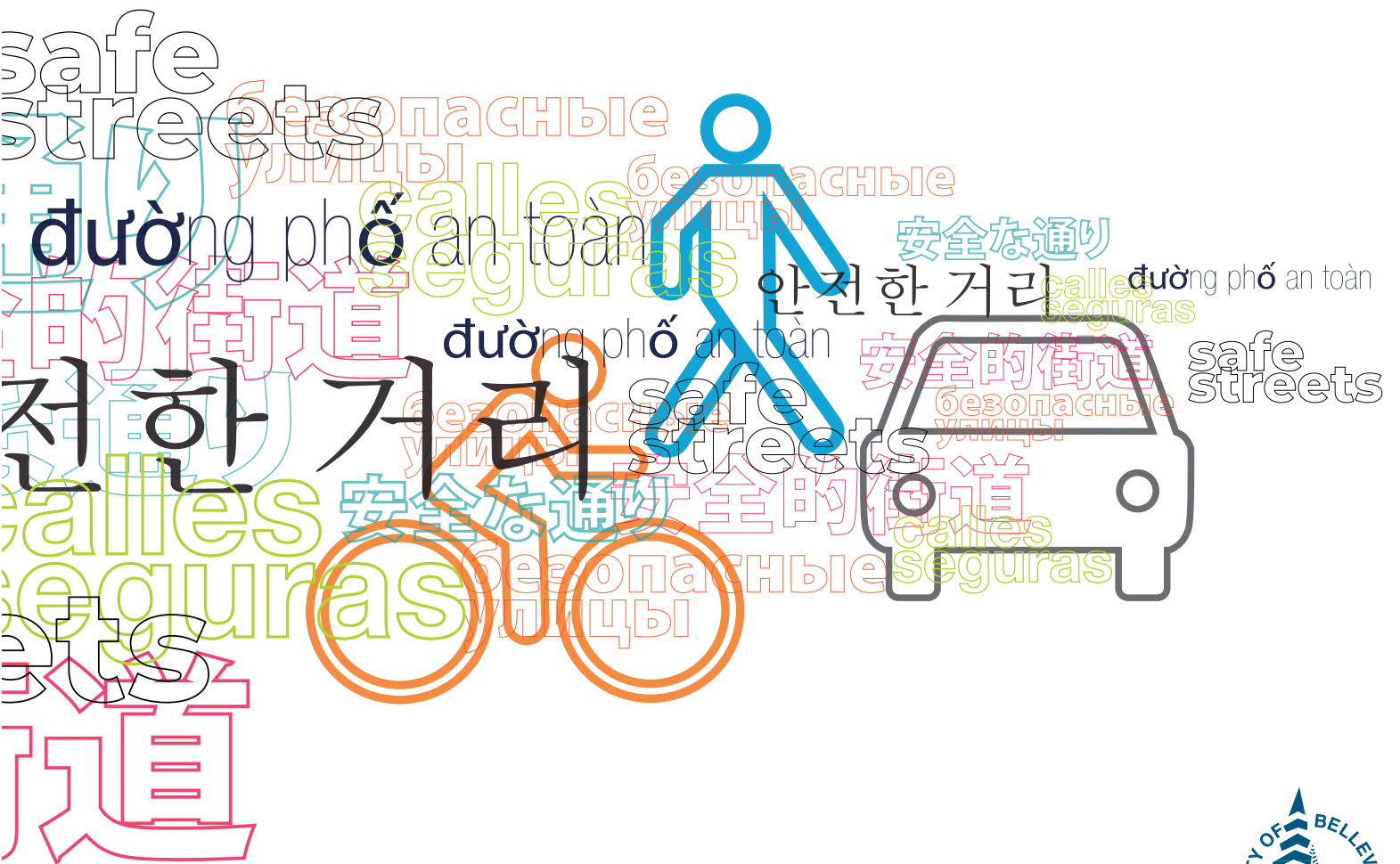




VISION ZERO STRATEGIC PLAN

ONE CITY TOWARDS SAFE STREETS



December 2020

HYATT
REGENCY

BELLEVUE PLACE



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A nighttime photograph of a city street. On the left, a tall building with a grid of windows is visible. A sign for 'Billiards & Sports' is illuminated on a lower level. A traffic light is visible in the foreground, showing a red light. The street is lit by streetlights, and a few pedestrians are walking on the sidewalk. The overall scene is a busy urban environment at night.

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OUR PLEDGE:

We will lead and implement the Vision Zero Strategic Plan to strive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030.



Foreword



On behalf of the Steering Team, I am pleased to present Bellevue's Vision Zero Strategic Plan. It outlines how our city will strive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030. The plan builds on our long tradition of excellence in traffic safety.

This is important work. Over the past 10 years, 16 to 30 people were seriously injured or killed annually on Bellevue Streets. In 2019 alone, five people lost their lives in collisions, the most ever in a single year. This trend line is unacceptable; as a community, we must do better.

I am grateful to the City Council for its leadership and to staff for developing this strategic plan to make our community safer. Bellevue's Safe System approach to Vision Zero—endorsed by the council in June 2020 (Resolution 9769)—is an effective road map for traffic safety.

In this approach, we acknowledge that new vehicle technologies, improved street infrastructure, lower vehicle speeds, and enhanced public awareness all contribute to reducing the frequency and severity of crashes.

The responsibility is shared: leaders make challenging decisions about traffic safety; staff leverages new technologies, creates partnerships with the public and private sectors and closely monitors data to assess results. Together, we develop a safety culture that acknowledges zero is the only acceptable number of deaths and serious injuries on our streets.

Like communities across the nation, COVID-19 has left the City of Bellevue with reduced resources. We can't just build or enforce our way towards zero traffic deaths and serious injuries. We need to partner with our diverse community to create a safety culture and make Bellevue a better place to live.

I'm confident we can achieve our Vision Zero goal. Bellevue embraces the principles of a high-performance organization, we look to national and international best practices for information to help us develop solutions, and we're willing to experiment with new tools that promote safety for all modes of travel.

The journey we are on will have far-reaching benefits for our community. Safer roads will encourage more people to walk and to cycle, improving their well-being and improving our environment. We look forward to working with the community during this decade of action to make Vision Zero a reality by 2030.

Be safe,

A handwritten signature in black ink that reads "Brad Miyake" with a horizontal line extending to the right.

Brad Miyake,
City Manager



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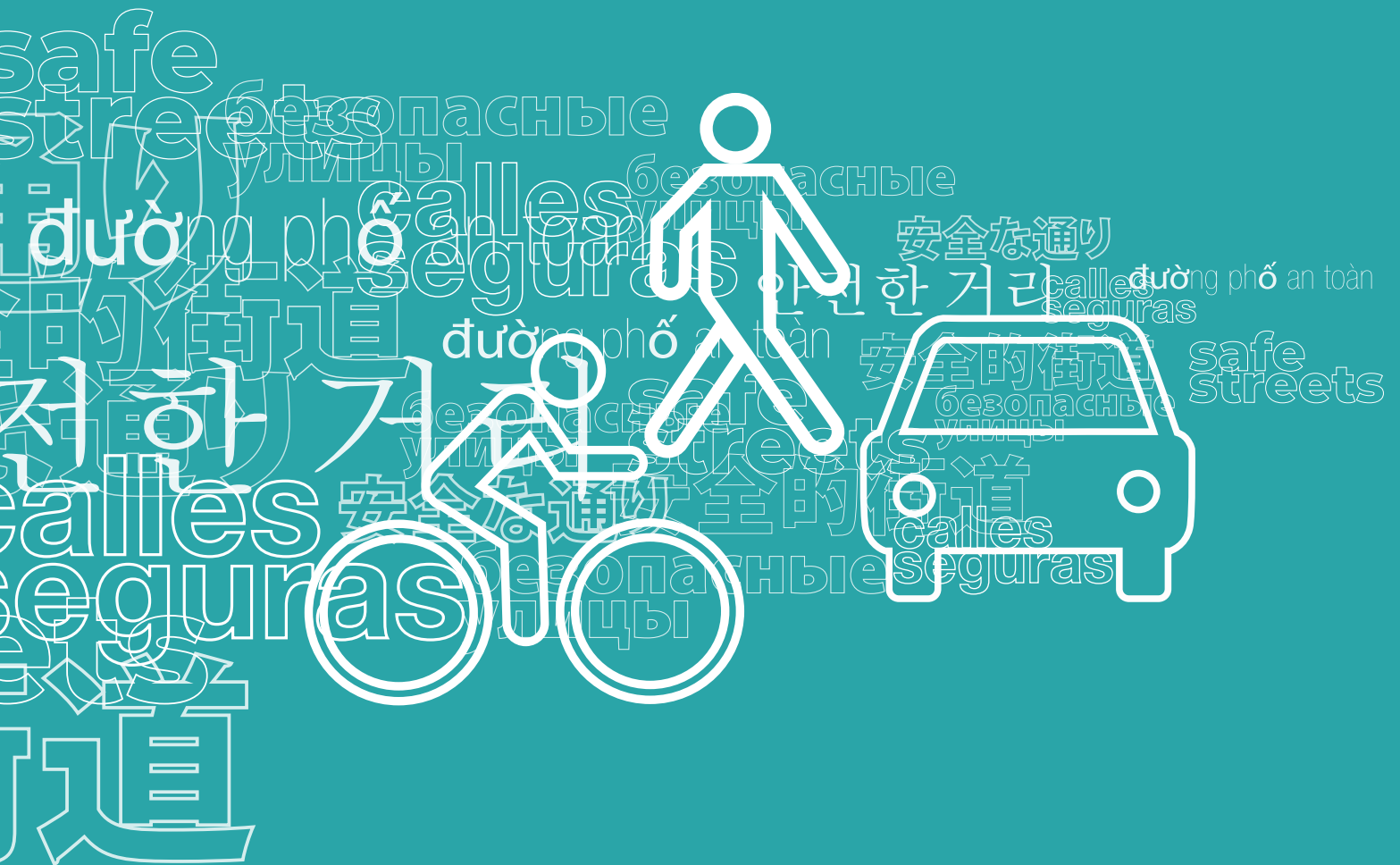
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DEVELOPING THE STRATEGIC PLAN



< The Transportation Commission and Bellevue Councilmember Jennifer Robertson signaling support for a Safe Systems approach towards Vision Zero.

Our Process

The City of Bellevue, Washington is a Vision Zero community that has put in place policies, plans, and programs to improve safety for the traveling public (see [Section 2, Plan Context](#)). However, there is more that can be done.

Vision Zero calls on government agencies to be proactive, identify risks, and take steps to prevent crashes and eliminate serious injuries and fatalities on our roadways. Vision Zero encourages us to imagine a future in which we do not need to wait for crashes to occur in order to take the necessary preventative steps to keep future crashes from happening.

The purpose of the Vision Zero Strategic Plan (Strategic Plan) is to coordinate existing efforts and new ideas, evaluate crash data, consider public concerns, and identify strategies that will reduce traffic fatalities and serious injuries to zero by 2030. The plan articulates a coordinated approach across the city departments, ensuring that transportation engineers, first responders, and other key staff work together.

The City of Bellevue is using a six-step process to develop, implement, monitor, and refine its Vision Zero strategy (see Figure 1).



Figure 1: Process to develop Bellevue's Strategic Plan.

STEP 1: Establish Leadership

The City Council established its Vision Zero goal statement when it adopted [Resolution 9035](#), "to strive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030." This action was followed with the council adopting [Ordinance 6334](#) incorporating Vision Zero amendments into the Comprehensive Plan, including policy TR-61.2: "Develop a programmatic approach to Vision Zero that integrates components of Education, Encouragement, Enforcement, Engineering, Equity, and Evaluation." Commonly, these are referred to as the "6 Es"; however, there is evolving conversation in the transportation industry on what "Es" to include (and exclude) in this framework (see [Safe Routes Partnership](#)).

In its [presentation](#) to the City Council recommending adoption of Ordinance 6334, the Transportation Commission committed to work with staff in developing the Vision Zero programmatic approach. Additional follow-up tasks identified:

- Prepare and implement a Vision Zero Action Plan that incorporates the "6 Es" and includes a clear purpose, outcomes, community involvement, action items, and performance measures;
- Update Vision Zero strategies periodically;
- Provide status reports that aggregate and analyze data, document efforts, and communicate progress to the council and to the community.

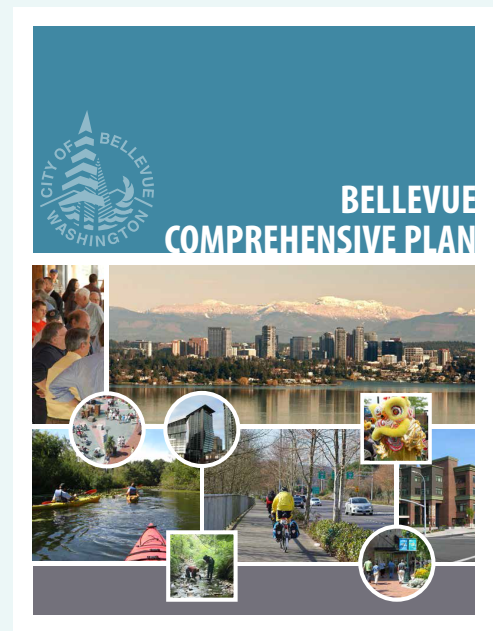


Figure 2: Bellevue's Comprehensive Plan Policy TR 61.1 states: "Strive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030."

STEP 2: Analyze Data

In response to council direction, the city's leadership team set in motion a cross-departmental "One City" collaboration, supported by technical staff and a project manager, to develop the Strategic Plan. Together with the Bellevue Transportation Commission, staff:

- Considered crash data, including trends, contributing factors, and streets with a high occurrence of fatal and serious injury collisions (see [memo](#));
- Vetted existing road safety efforts in Bellevue and international Vision Zero best practices (see [memo](#));
- Solicited input from residents and business stakeholders, public health professionals, safety advocates, technologists, and state and federal agencies (see [project page](#)); and
- Hosted the [Bellevue Vision Zero Summit](#) with experts from the Federal Highway Administration, National Highway Traffic Safety Administration, Washington Traffic Safety Commission, Washington State Department of Transportation, Washington State Patrol, Pacific Northwest Transportation Consortium, Institute of Transportation Engineers, and others conversing about road safety best practices (see Figure 3).

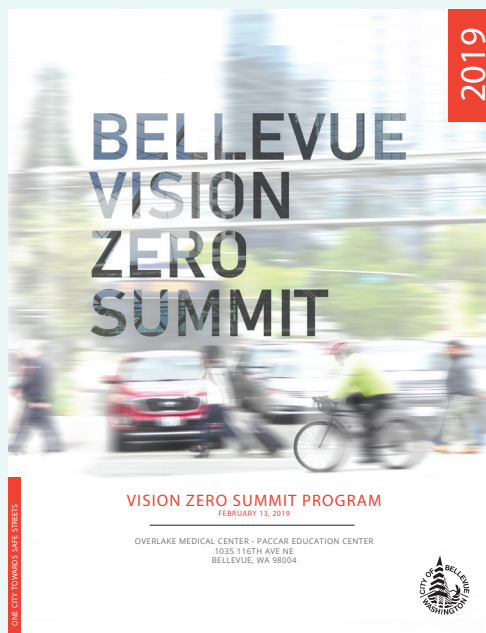


Figure 3: As part of the work to create a strategic plan, the City organized the Vision Zero Summit at Overlake Medical Center. Experts from across the nation spoke to over 100 attendees on road safety best practices.

STEP 3: Determine Approach

Across the United States, the Institute of Transportation Engineers (ITE) is encouraging Vision Zero communities to adopt the Safe Systems approach because it results in improved safety outcomes (see [ITE Technical Resources](#)). In Washington, the Safe Systems approach is endorsed in the statewide [2019 Target Zero Plan](#): "It is time for Washington to adopt the Safe Systems principles statewide in its policies, programs, projects, activities, and investments. When we do so, we will save lives, provide better stewardship of public resources, and improve the functioning of the transportation system for everyone using it."

In its advisory role in the development of the city's Strategic Plan, the Bellevue Transportation Commission examined the attributes of the Safe Systems approach and concurred that Safe People, Safe Streets, Safe Speeds, Safe Vehicles -- as well as the supporting elements of leadership, culture, partnerships and data -- all help contribute to reducing the frequency and severity of crashes (see Figure 4).



Figure 4: The Bellevue Safe Systems approach rests on four pillars (Safe Speeds, Safe People, Safe Vehicles, and Safe Streets) paired with four supportive elements (Data, Leadership, Partnerships, and Culture).

STEP 4: Identify Strategies

Following five study sessions, the Bellevue Transportation Commission voted unanimously to recommend the council approve the Safe Systems approach. Nested within the Safe Systems approach are 36 strategies that build upon the council’s Vision Zero goal by articulating the programmatic steps staff should pursue to eliminate traffic fatalities and serious injuries in Bellevue by 2030

Bellevue’s Safe Systems strategies include street design, speed management, regulation and enforcement, and education. A road designed using the Safe Systems approach puts human life—and its inherent vulnerability—at the center. It recognizes that the human body can only take so much force and that even the most conscientious person can make a mistake, but this should not cost them their life. This perspective is particularly important when considering the safety needs of people walking, biking or motorcycling, who do not have the added protection of a vehicle and who together account for 49 percent of all traffic related serious injuries and fatalities in Bellevue.

In June 2020, the council adopted [Resolution 9769](#) “approving the Safe Systems approach and strategies to move Bellevue towards Vision Zero” (see Figure 5).



Figure 5: Within the Safe Systems approach are strategies (in this example, there are six strategies) that will enable the city to achieve its Vision Zero goal.

STEP 5: Prioritize Actions

Following the council’s approval of the strategies, staff finalized the Strategic Plan. In 2021, the Vision Zero Steering Team (a cross departmental executive work group) will finalize the first annual Action Plan—identifying short-term implementation actions, responsible parties, time frames to complete the actions, and performance measures to track progress.

The development of annual Vision Zero Action Plans will balance Safe Systems actions with other competing city priorities and sensitivity to available funding. The Vision Zero Steering Team is focused on providing the highest priority government programs, services, and capital investments. In this context, the Steering Team is working to find the best solution set that delivers measurable improvement, is affordable, and can be implemented in a reasonable time frame (see Figure 6).



Figure 6: The Strategic Plan represents our shared commitment to address systemic traffic safety challenges that go beyond any one crash.

STEP 6: Evaluate and Update

Plans are living documents. They must remain adaptable and evolve. Moving forward, the Steering Team and Core Team will build and sustain leadership, collaboration, and accountability as Bellevue advances from Vision Zero planning to implementation. The purpose of this evaluative step is to create a common understanding of the extent to which the City of Bellevue is moving toward a safe transportation system (see Figure 7). By working together in the development of an annual Vision Zero Action Plan (informed by lessons learned), the Steering Team is establishing a consistent and coordinated approach to transportation safety that aligns policies and practices at all levels of government and across city departments.

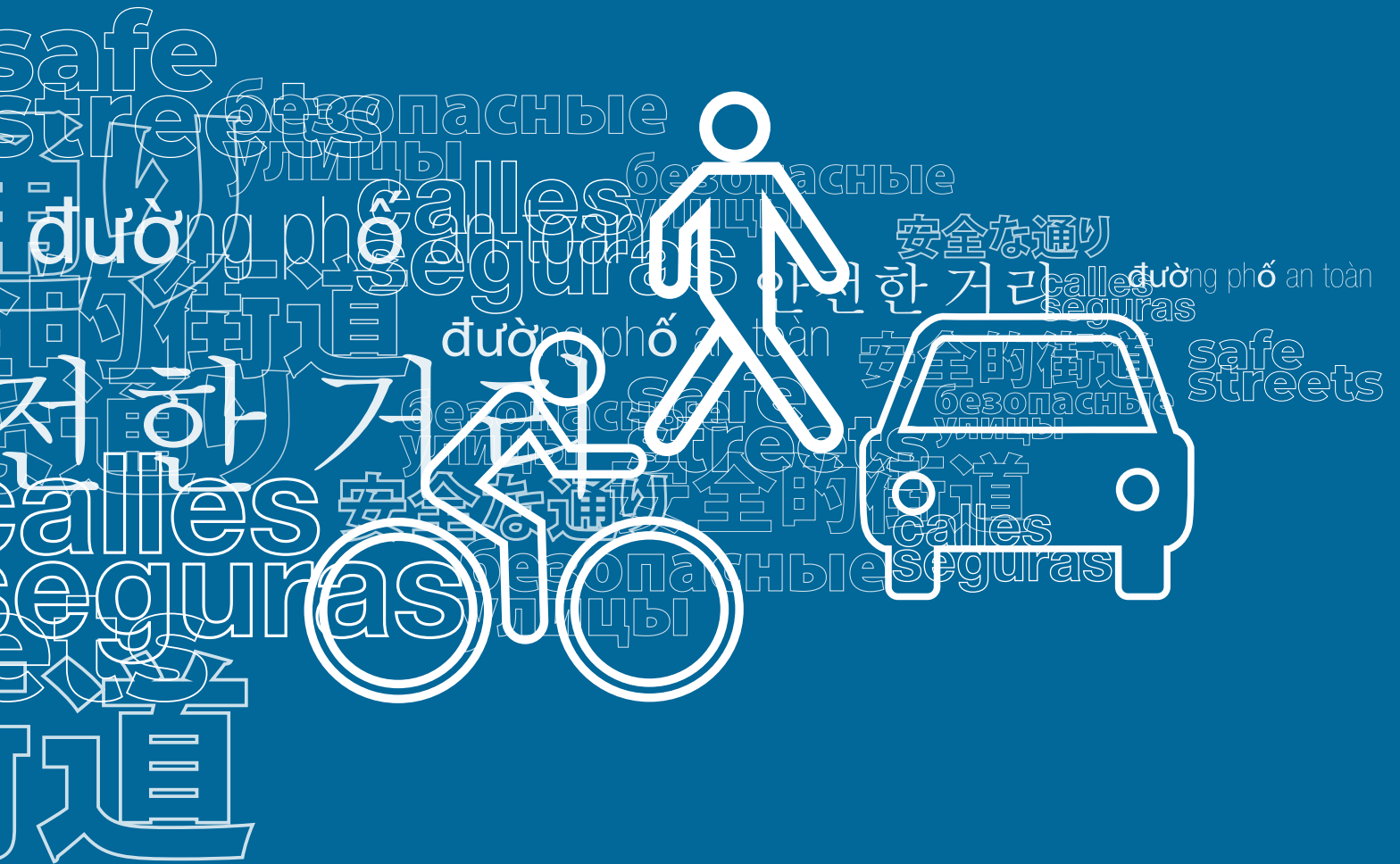


Figure 7: The City Council, Transportation Commissioners, staff, and community stakeholders standing together in support of the Safe Systems approach to Vision Zero.

NE 8 ST

134 AVE NE





< A “ghost bike” serves as a roadside memorial for a person riding a bicycle who was killed in a crash with a person driving while he was bicycling on NE 8th Street in 2019.

A History of Traffic Safety

The City of Bellevue has a long history of implementing policies, programs, and practices in support of traffic safety.

In 1985, Bellevue launched its first traffic safety program, becoming one of only two cities in Washington with a formal program. In the program's first years, Bellevue led pilot projects and tried physical interventions. For example, in 1985, Bellevue was the first city in the state to install speed humps.

During the 1980s, there was a heavy emphasis on education, including the publication of traffic safety newsletters, hosting bike rodeos, and using events, activities, and the Pedbee mascot to teach children in grades K-5 about pedestrian and traffic safety.

Since the 1990s, Bellevue has shifted towards a more holistic approach to designing streets to safely accommodate people using all travel modes (see [Complete Street Ordinance](#)).

Recognizing a growing backlog of relatively small-scale safety projects, voters approved the [Neighborhood Safety, Connectivity and Congestion Levy](#) in 2016. This 20-year levy supplements existing safety, sidewalk, maintenance, traffic management, and bicycle facility programs with approximately \$7.4 million in annual funding (see Figure 8).

Building on a Strong Foundation

Over the years, the city has continued testing innovative ideas to further traffic safety—receiving acknowledgments along the way. For example, Bellevue's traffic calming interventions won awards in the late 1980s and early 1990s from the American Automobile Association (AAA) and the Washington Traffic Safety Commission. More recent awards recognizing Bellevue's commitment to transportation safety include:

- [2019 Bicycle Friendly Community – Silver Award](#), The League of American Bicyclists
- [2019 Walk Friendly Communities – Silver Award](#), Highway Safety Research Center
- [2017 Transportation Achievement Award for Safety](#), Institute of Transportation Engineers
- [2016 Safer People, Safer Streets Initiative Award](#), U.S. Dept. of Transportation (see Figure 9)
- [2012 Transportation Planning Excellence Award](#), Federal Highway Administration

Despite the city's long-standing commitment to safe streets, more must be done to "[s]trive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030" ([Comprehensive Plan](#) Policy TR 61.1). Bellevue took this ambitious step of adopting a Vision Zero goal to signal that it is willing to do the hard work necessary to eliminate traffic fatalities and serious injuries.



Figure 8: Bellevue Transportation Department's Twitter feed is frequently leveraged to share progress on Complete Streets, including this Levy-funded bikeway project.



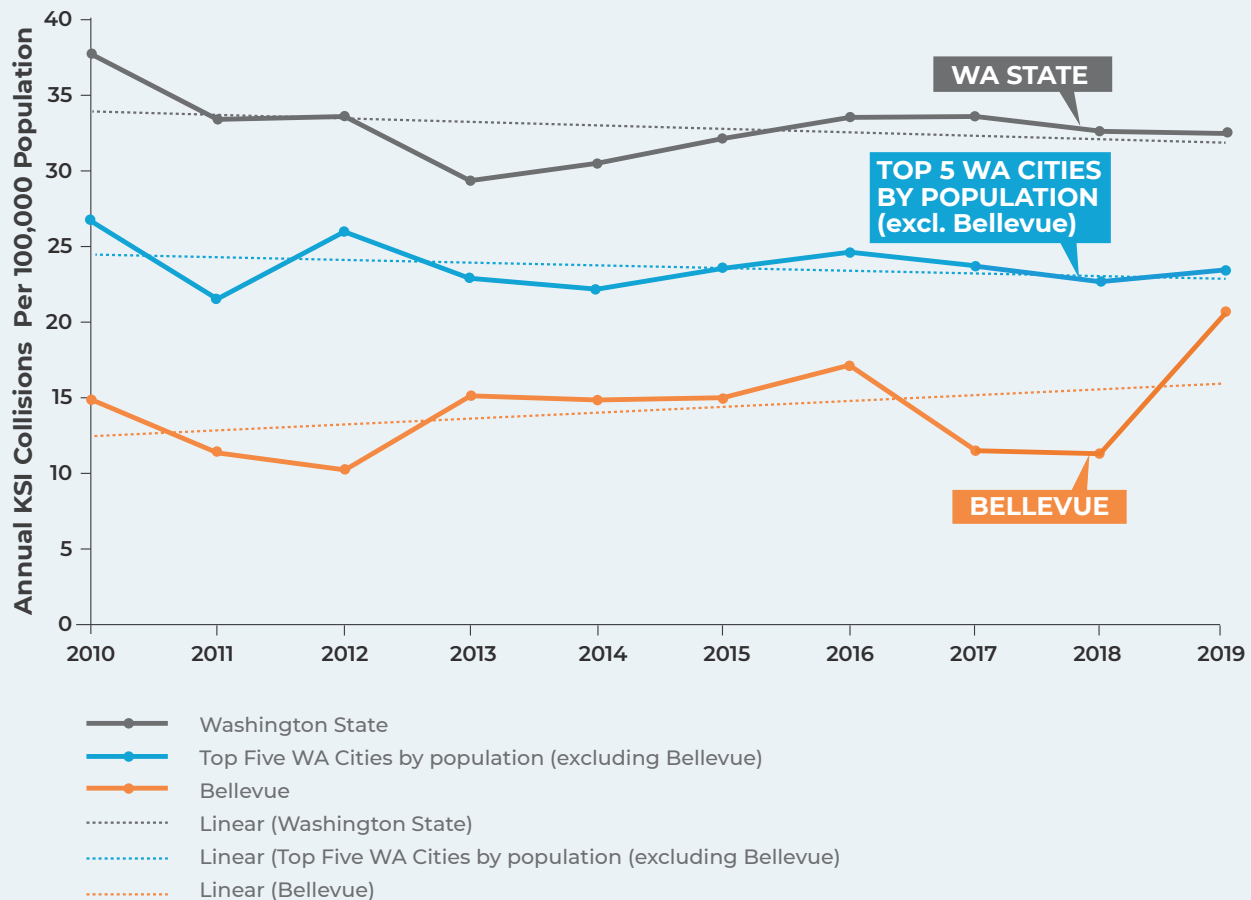
Figure 9: In 2016, Bellevue Councilmember Lynne Robinson (later Mayor) and Vision Zero Program Manager Franz Loewenherz received a Safer People, Safer Streets Initiative Award from U.S. Secretary of Transportation Anthony Foxx.

A Need for Safer Streets

In 2019, 1,354 collisions on Bellevue streets were reported to police: 502 people were injured; 25 of them were seriously injured; and five people were killed.

Understanding trends in data helps staff choose strategies, actions, and projects that will make people safer. Collision data from 2010–2019 was analyzed to understand when, where, and why fatal and serious injury collisions occur in the city.

- Between 2010 and 2019 the annual number of collisions in Bellevue decreased by 13 percent (from 1,551 in 2010 to 1,354 in 2019). However, over the same period, the number of people killed or seriously injured in collisions increased by 50 percent (from 20 in 2010 to 30 in 2019). In other words, serious injury and fatal collisions in 2010 were 1.2 percent of all collisions, while in 2019, they were 2.1 percent of all collisions.
- Compared with other communities in Washington, Bellevue has had a lower rate of fatal and serious injury collisions (per 100,000 population). However, the rate in Bellevue is trending upward, while Washington State and peer cities have downward trend lines (Figure 10).

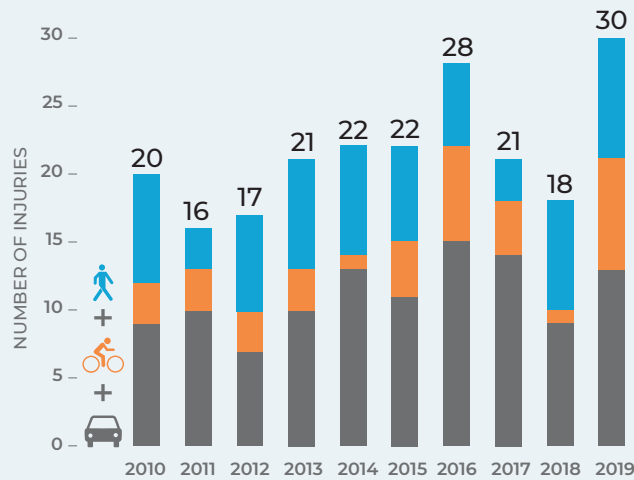


Source: WSDOT Collision Data (2010-2019)

Figure 10: Fatal and serious injury collisions per 100,000 population (Source: WSDOT collision database for Bellevue street system only [freeways and their associated fatalities and serious injuries are not represented]).

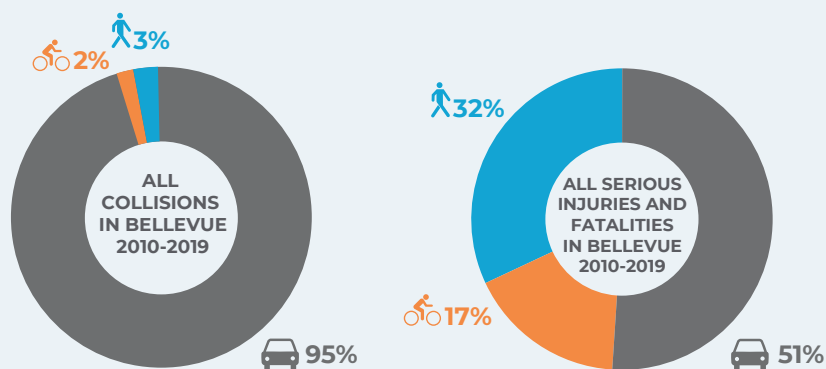
- The number of fatal and serious injury collisions and the transportation modes (walking, biking, driving) involved, fluctuates significantly year-to-year, with a low of 16 in 2011 and a high of 30 in 2019 (Figure 11).
- Fatal and serious injury collisions occur among all road users, but some groups are at greater risk than others. People walking and bicycling—defined by state law as vulnerable road users—are much more likely to be involved in a fatal or serious injury collision compared to people in cars (Figure 12).
- Fatalities and serious injuries are most common during the weekday peak hours in Bellevue, especially between 4 p.m. and 6 p.m. On weekends, the highest numbers of fatalities and serious injuries occur throughout the afternoon and early evening from 2 p.m. to 9 p.m. (Figure 14).

- The contributory factors to traffic collisions are many and varied, and multiple factors are typically at play in most collisions. These varied causation factors are often categorized as: human, environment, road, and/or vehicle. In Bellevue, the top five behaviors that contribute to fatal and serious injury collisions (Figure 13) are, in order of frequency:
 1. Not granting right-of-way to vehicle contributes to 29 percent of all fatal and serious injury collisions in Bellevue.
 2. Inattention or distracted driving contributes to 20 percent of fatal and serious injury collisions in Bellevue.



Source: WSDOT Collision Data (2010-2019)

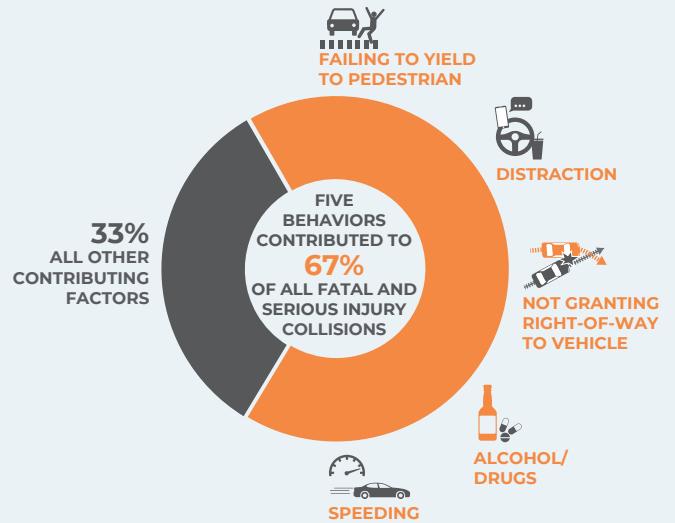
Figure 11: From 2010 to 2019, 194 people were seriously injured, and 21 people were killed in traffic collisions on Bellevue’s streets. To contextualize this past decade of data: every 17 days someone was killed or seriously injured on Bellevue’s streets.



Source: WSDOT Collision Data (2010-2019)

Figure 12: From 2010 to 2019, five percent of all collisions in Bellevue involved people walking and bicycling. In contrast, these vulnerable road users represented 49 percent of all serious injuries and fatalities.

3. Speeding contributes to 18 percent of fatal and serious injury collisions in Bellevue. Currently, Bellevue's streets with a posted speed limit of 35 MPH or more account for 42 percent of fatalities and serious injuries but account for only 13 percent of total street mileage.
4. Driver impairment through alcohol or drugs is cited as a factor in 17 percent of all fatal and serious injury collisions in Bellevue. Considering vehicle collisions only, one in four fatal and serious injury collisions in Bellevue involve a driver who is under the influence of alcohol or drugs. This is primarily a factor at night, as 84 percent of the fatalities and serious injuries that involve driver impairment occurs between 6 p.m and 3 a.m.
5. Failing to yield to pedestrians contributes to 16 percent of all fatal and serious injury collisions in Bellevue and 41 percent of all pedestrian fatalities and serious injuries.



Source: WSDOT Collision Data (2010-2019)

Figure 13: In Bellevue, five behaviors contributed to 67 percent of all fatal and serious injury collisions.

DAY \ HOUR	HOUR																							
	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
MONDAY	1	2					1	3	1		1	3	1	3	1	2	1	1	3	2	1		1	1
TUESDAY			1			1			3	3	2				3	2	1	3	1	2				
WEDNESDAY		2				2	1	2	2	1	1	1	3	1	2	5	2	4	3	2		3	2	1
THURSDAY	1		2					2	1	3	2	1	1			2		5	8	2	2	1		
FRIDAY		1				2	2			4			1	1		3	3	3	4	2	1	1	3	2
SATURDAY	5	1	1	1			3				1	1		1	5	2	3	2	1	1	3			
SUNDAY	2	1	2		1						4			2	1	1	1	1	4	2	4			

DAY \ HOUR	HOUR																							
	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
WORKDAY AVG.	0.4	1.0	0.6			1.0	0.8	1.4	1.4	2.2	1.2	1.0	1.2	1.0	1.2	2.8	1.4	3.2	3.8	2.0	0.8	1.0	1.2	0.8
WEEKEND AVG.	3.5	1.0	1.5	0.5	0.5		1.5				2.5	0.5	1.0	1.0	3.0	1.5	2.0	1.5	2.5	1.5	3.5			

Source: WSDOT Collision Data (2010-2019)

Figure 14: Shows average fatalities and serious injuries by day of the week and time of day, as well as by weekday/weekend averages and time of day. The darker colors in the figure highlight the hours with the highest average frequency of incidents.

- Fatalities and serious injuries in Bellevue tend to be concentrated in Downtown and east of Downtown (Figure 15). These areas make up only 3 percent of the city’s total area but account for 22 percent of all fatalities and serious injuries.
- In Bellevue, 94 percent of fatalities and serious injuries occur on arterials, which account for only 33 percent of the city’s streets.
- Most fatalities and serious injuries among people walking and bicycling in Bellevue occur at intersections: 61 percent of pedestrian and 54 percent of bicycle fatalities and serious injuries.

- In Bellevue, 83 percent of fatal and serious injury traffic collisions occur on 8 percent of the city’s total street network (as measured in length). This density of serious injury and traffic collisions comprise the city’s High Injury Network (Figure 16).

The evaluation of collision data on a network serves as a starting point from which staff will advance through the systemic safety analysis steps of selecting, implementing, and evaluating road safety countermeasure projects consistent with national best practice (see [USDOT Safe Roads for a Safer Future](#)).

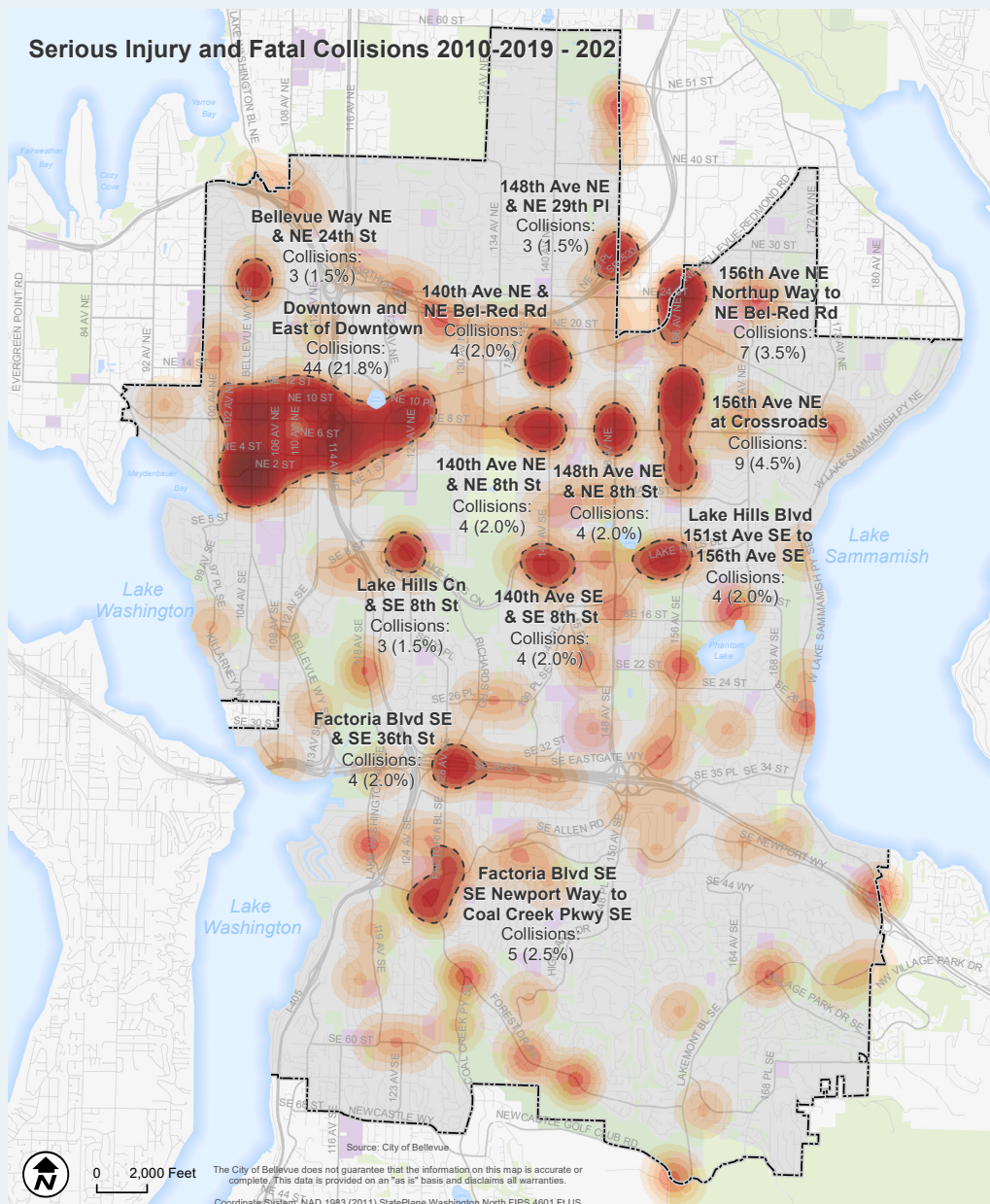


Figure 15: Serious injury and fatal collisions heat map (2010-2019).

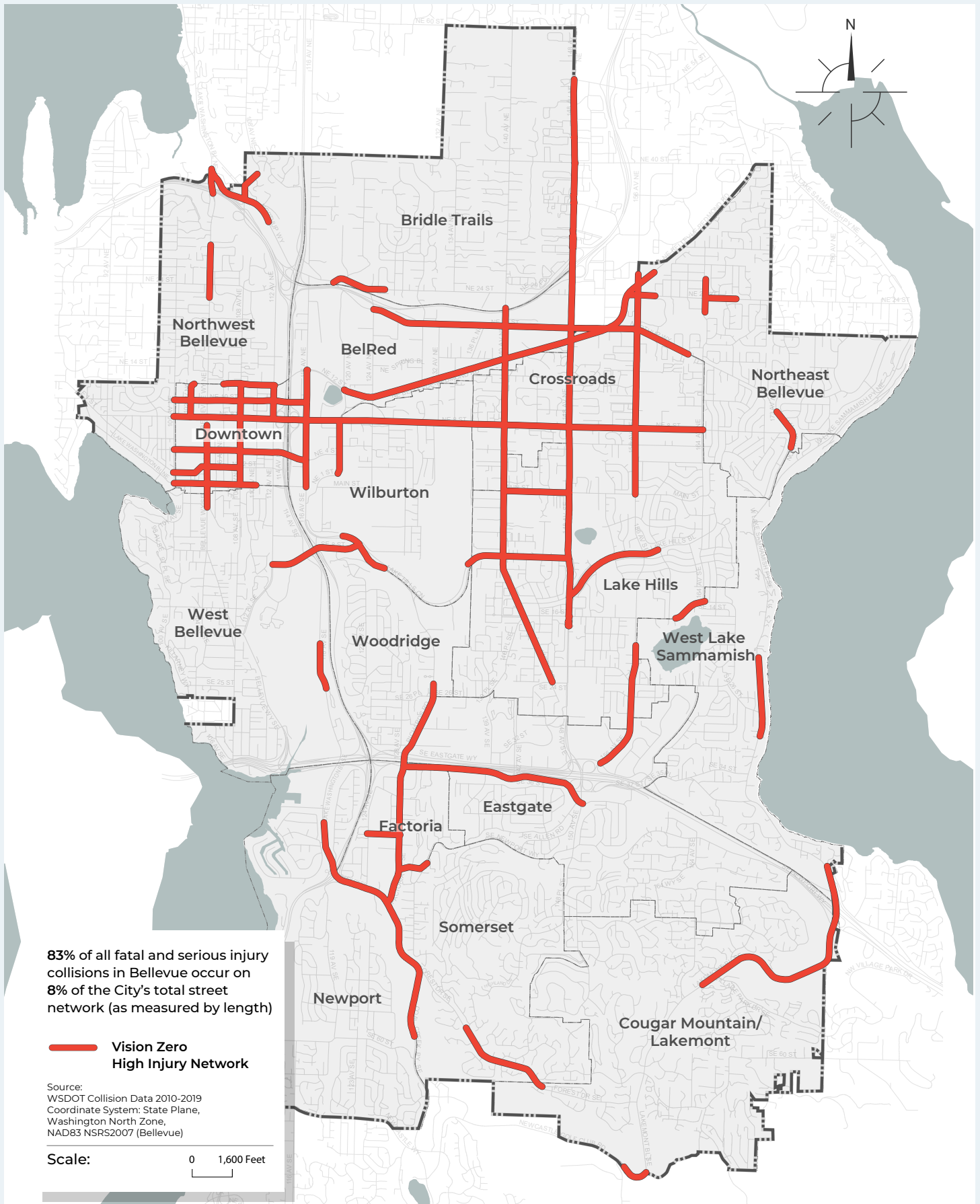


Figure 16: High Injury Network map.

Gathering Input

The process of developing the Strategic Plan served as an opportunity to foster a safety culture wherein everyone is encouraged to contribute towards safe streets. It is in this spirit of shared responsibility—in how we travel, establish policies, design our streets, and enforce our traffic laws—that development of the Strategic Plan included multiple engagement opportunities with staff, community stakeholders, and partner agencies. Through multiple online questionnaires, an online interactive mapping outreach tool, presentations to interest groups, Vision Zero Pledge engagement, and meetings with partner agencies, staff received insights that informed plan priorities, strategies, and actions.

- Vision Zero pledges:** Everyone deserves the opportunity to tell their own story. While developing the Strategic Plan, staff invited statements from members of the community to connect statistics, policies, and engineering concepts—like speed limits, traffic signals, crosswalks, and bikeways—to the human lives that are impacted by the transportation system and the decisions people make when using it (Figure 17).
- Diverse outreach:** The council’s vision statement begins, “Bellevue welcomes the world.” As a majority-minority city, the progress Bellevue makes towards a safer transportation system needs to be shared by all members of the community. In developing the Strategic Plan, staff reached out to a wider sample of Bellevue’s population than traditionally seen at established public meetings (Figure 18).
- Online questionnaires:** Shifting Bellevue’s traffic safety culture requires that we understand the current perceptions, attitudes, and behaviors of those who use our transportation system (travelers in Bellevue) and those who plan, design, construct, and operate it (city employees). Online questionnaires were conducted in winter 2019 to understand our community’s and organization’s cultures. The results, reflecting 1,731 community and 236 staff responses, provide a starting point for us to share similar vocabulary and understanding of what we currently value in our transportation system. From here, we can create more strategies to change our collective traffic safety culture (Figure 19).



Figure 17: Vision Zero pledge photos taken during multiple outreach efforts are consolidated in [a report](#).

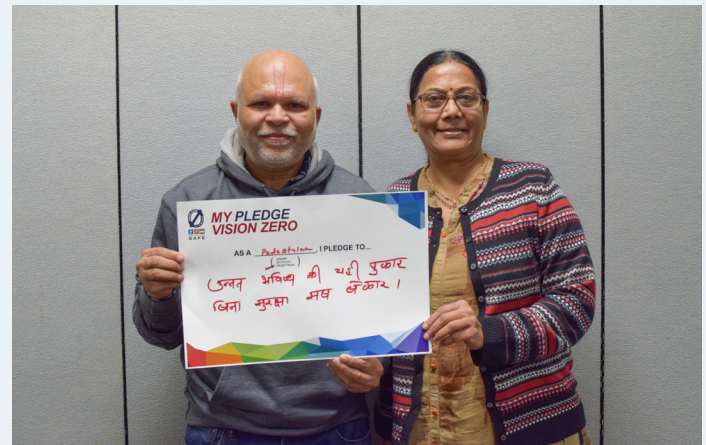


Figure 18: Diverse outreach in support of the Strategic Plan included presentations to and input from the Indian Association of Western Washington ([presentation](#)), English Language Learners Alliance ([presentation](#)), and other stakeholder groups.

STREETS SHOULD BE DESIGNED TO BE SAFE FOR PEOPLE OF ALL AGES AND ABILITIES

STRONGLY DISAGREE ● 0 ● 1 ● 2 ● 3 ● 4 ● 5 ● 6 ● 7 ● 8 ● 9 ● 10 STRONGLY AGREE

Community Questionnaire (N=1517)



Staff Questionnaire (N=232)



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Figure 19: Community and staff responses to the prompt: “Streets should be designed to be safe for people of all ages and abilities.” For additional details on these questionnaires, see [community results](#) and [staff results](#).

- Interactive mapping outreach tool:** Over 700 respondents placed more than 1,600 points on an online interactive mapping outreach tool to identify safety issues they have experienced while walking or bicycling in Bellevue (Figure 20). The responses from this and other community surveys conducted in support of Vision Zero and Bellevue's Pedestrian and Bicycle Implementation Initiative confirm that many residents want to ride a bicycle or walk more but are dissuaded by road safety concerns.
- Targeted outreach:** Targeted outreach provided the opportunity to engage in conversations with an assortment of community groups. For example, it was informative to converse with YouthLink Council members given that young drivers (people under 25 years of age) account for 25 percent of all serious injuries and fatalities in Bellevue despite representing only 13 percent of all Bellevue driver license and permit holders. These targeted outreach efforts included the use of keypad polling through which staff learned that 73 percent of Youth Link Council members regularly ride in a car with a driver who is texting or emailing and 10 percent do so every day (Figure 21).
- Partner agency outreach:** To connect local safety priorities with interests and efforts in the region and state, the city coordinated the development of its Strategic Plan with the 2019 update to the [Washington State Target Zero Plan](#). Collaboration between City staff and colleagues from the Washington Traffic Safety Commission and other statewide agencies sought to align priorities and identify strategic partnership opportunities, including participation in the first [Bellevue Vision Zero Summit](#). Through a sense of responsibility and a commitment to cooperation and coordination, we are developing effective and innovative road safety initiatives and interventions.
- Transportation Commission:** The Bellevue Transportation Commission is a seven-member appointed body that advises the City Council on transportation-related issues. Commissioners considered crash data, vetted existing road safety efforts in Bellevue and international best practices, listened to the community, and attended the Bellevue Vision Zero Summit. During five study sessions, the commission worked with staff to develop the Safe Systems approach and strategies. On Jan. 9, 2020, the commission voted unanimously to recommend the council approve a Safe Systems approach and strategies to move Bellevue towards Vision Zero (Figure 22).

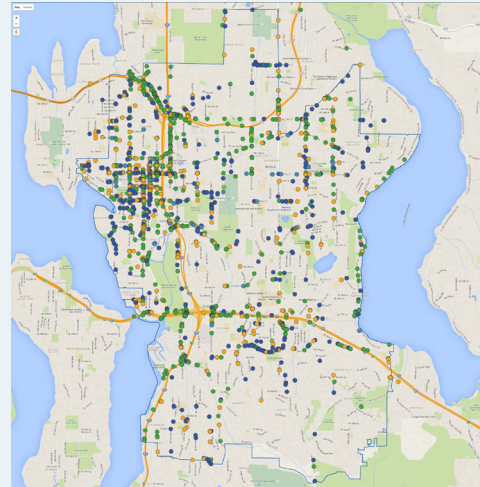


Figure 20: Bellevue leveraged an online mapping platform that invited the public to pinpoint locations where they felt unsafe walking and bicycling, whether due to inadequate facilities or behaviors exhibited by other road users. Results are consolidated in this [report](#).

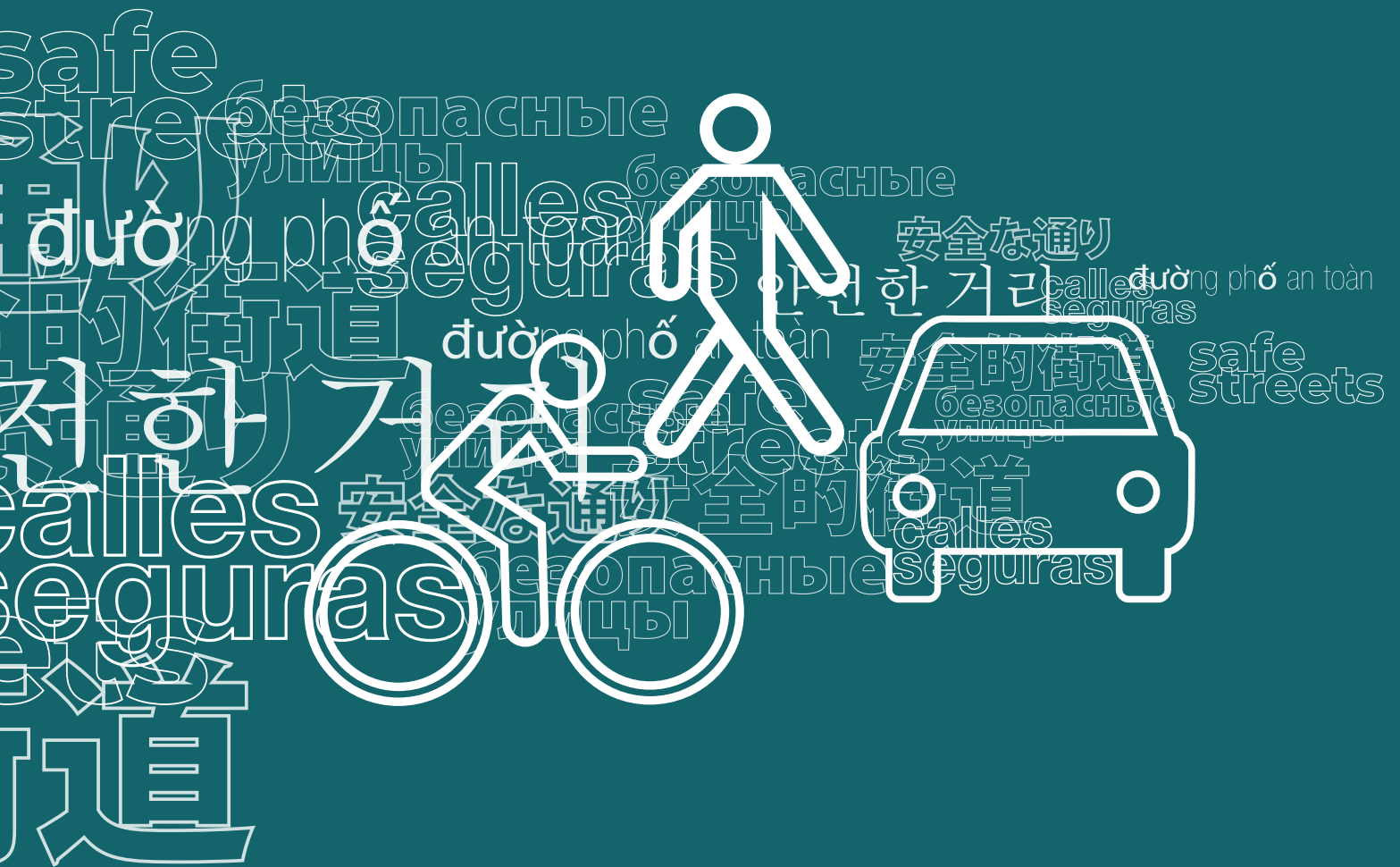


Figure 21: Targeted outreach in support of the Strategic Plan included presentations to and input received from the Bellevue Network on Aging ([presentation](#)), YouthLink Council ([presentation](#)), and other stakeholder groups.



Figure 22: The Transportation Commission and Bellevue Councilmember Jennifer Robertson signaling support for a Safe Systems approach towards Vision Zero.





< A young Bellevue resident walking her bike to school.



Figure 23: The Bellevue Safe Systems approach rests on four pillars (Safe Speeds, Safe People, Safe Vehicles, and Safe Streets) paired with four supportive elements (Data, Leadership, Partnerships, and Culture).

A Holistic Approach

A Safe Systems approach uses a range of integrated strategies to reduce fatal and serious injury crashes. In June 2020 the council adopted Resolution 9769 “approving the Safe Systems approach and strategies to move Bellevue towards Vision Zero.”

Nested within the Safe Systems approach (see Figure 23) are 36 strategies. Adopting the Safe Systems approach and strategies builds upon the council’s “why” statement (i.e., the Vision Zero goal) by providing guidance on “what” steps (i.e., Safe Systems strategies) staff should pursue to eliminate traffic fatalities and serious injuries in Bellevue by 2030 (Figure 24).

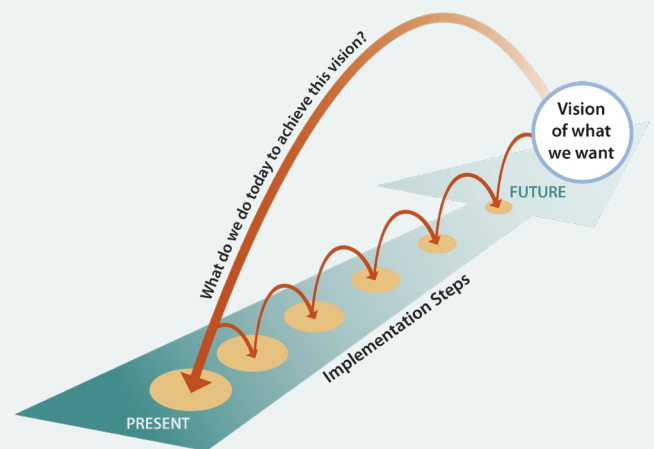


Figure 24: The Safe Systems approach, strategies, and actions clarify the steps that staff should pursue today to move Bellevue towards Vision Zero.

A New Paradigm

The Safe Systems approach involves a new way of thinking about safety. In the past, safety has focused on:

- Accepting road user behavior as the cause of crashes;
- Promoting adherence to the rules of the road through education, regulation, enforcement;
- Reducing crashes by creating roads that have more space for cars (e.g. wider lanes and roads)
- Adjusting signal operations to reduce travel delay for people driving; and
- Accepting safety trade-offs with the expectation that some people will inevitably die in “accidents”—a word that implies that an event happens by chance, without apparent cause.

In contrast, the Safe Systems approach is founded in the belief that death and serious injuries on city streets are preventable; they are not accidents. Crashes—the appropriate word choice—are more complex than an individual road user’s behavior leading up to the crash. This is why the National Highway Traffic Safety



Figure 25: Walk to School Day events are a powerful reminder that kids deserve safe places to walk. By creating safe streets for students we are furthering the goals of Vision Zero – the commitment to eliminating death and serious injury for people of all ages and abilities in the City.

Administration (NHTSA) warns that the description of the pre-crash event is “not intended to be interpreted as the cause of the crash, nor as the assignment of the fault to the driver, vehicle, or environment” (see [NHTSA Traffic Safety Facts](#)). Instead, crashes result from a set of design, infrastructure, and systemic issues that affect the ability of people to conduct themselves safely on the road (see [ITF’s Leading a Paradigm Shift to a Safe System](#)).

Road safety problems must be approached from multiple angles, incorporating street designs that emphasize safety, predictability, and the potential for human error, coupled with targeted education and data-driven enforcement efforts.

For example, today we know that one of the most effective approaches to improving safety on streets is to use road reconfigurations (also known as road diets) to narrow travel lanes, reduce the number of vehicle lanes, or both, while providing space for bicyclists and pedestrians (see [FHWA Road Diet Informational Guide](#)). We also know that the implementation of roundabouts, when compared to signalized intersections, are proven to improve intersection safety by reducing conflicts, reducing crash severity, and reducing the speed of drivers as they proceed through intersections (see [FHWA Roundabouts Informational Guide](#)).

The Safe Systems approach accepts that people will make mistakes and that crashes will continue to occur but aims to ensure these mistakes do not result in fatalities or serious injuries. New vehicle design and technologies, improved street infrastructure, comprehensive speed management, and enhanced public awareness on traffic safety all contribute to reducing the frequency and severity of crashes.

Also, responsibility for the Safe Systems approach is shared:

- Leaders are prepared to make challenging decisions when traffic safety is at stake;
- Staff leverage new technologies and closely monitors data to assess results; and
- Partnerships with the public and private sectors are formed to achieve intended outcomes.

Together we are developing a safety culture that accepts zero as the only acceptable number of deaths and serious injuries on our streets (Figure 25).

Bellevue’s Safe Systems approach towards Vision Zero regards all parts of the system, summarized in the following table (Figure 26), as essential elements that must be strengthened in combination to multiply their positive effects.

Safe Systems	Principles	Goals
SAFE PEOPLE	The Safe Systems approach acknowledges that the responsibility to prevent crashes is shared by road users, vehicle manufacturers, and people who plan, design, build, operate and maintain streets	Engage and educate people to take personal responsibility in Vision Zero by encouraging them to use the transportation system as intended and utilize all safety features in their mode of travel
SAFE STREETS	The Safe Systems approach recognizes that people make mistakes and that streets should be “self-enforcing,” to minimize the risk of death or serious injury.	Improve safety by significantly reducing the likelihood of crashes and minimizing the consequences of actual crashes.
SAFE SPEEDS	The Safe Systems approach recognizes that human bodies can be seriously damaged in vehicle crashes and there is a direct connection between speed and the severity of the injuries.	Implement, educate about, and enforce speeds that reduce the risk of bodily harm for people inside and outside of vehicles
SAFE VEHICLES	The Safe Systems approach supports innovations in vehicle systems that reduce crash impacts and alert drivers to road dangers.	Implement and influence improvements to vehicle design and technology to reduce risk of injury to people inside and outside the vehicles.
LEADERSHIP	The Safe Systems approach prioritizes road safety among competing interests and fosters sustained leadership, collaboration, and accountability to reach the Vision Zero goal	Commit all levels of the city to keep learning, refining our skills, and expanding our toolbox with the best available strategies, policies, and actions.
CULTURE	The Safe Systems approach recognizes that how we think and talk about traffic safety matters (#WordsMatter) and cultivates an organizational culture that identifies traffic fatalities and serious injuries as unacceptable and preventable.	Develop a shared language and understanding about traffic crashes, which begins by acknowledging that zero is the only acceptable number of deaths and serious injuries on our streets, that crashes are preventable incidents, and that we all have a role in achieving this goal.
PARTNERSHIPS	The Safe Systems approach is based on the cooperation and coordination of city departments, the general public, and the public and private sectors to collectively advance effective Vision Zero projects, programs, initiatives, and campaigns.	Promote “One City” collaboration and partnerships between the City of Bellevue and the broader Vision Zero community to achieve optimal outcomes.
DATA	The Safe Systems approach leverages traditional crash data, community input, conflict analytics, and other data sources to identify areas of potential risk, select appropriate safety countermeasures, and monitor countermeasure impacts. The goal is to proactively prevent safety problems before they arise.	Collect and analyze data to understand the factors that impact the safety of our transportation system and leverage this insight to identify improvements and evaluate outcomes.

Figure 26: Bellevue's Safe Systems approach to move towards Vision Zero.

As streets become safer, more people will feel comfortable shifting their trips to active modes of transportation—increasing walking, bicycling and the use of public transportation (Figure 27). This will lead to less driving and lower traffic casualty rates, which ultimately translates to better performing streets, improved air quality and better public health (see [Victoria Transport Policy Institute A New Traffic Safety Paradigm](#)).



Figure 27: Providing safe and convenient infrastructure opens up opportunities for all people. Walking and bicycling can thrive, helping curb emissions while offering active, healthy forms of transport. Public transportation can reach more people, helping cut vehicle emissions contributing to global warming and air pollution, while decreasing travel times. These solutions that benefit people also benefit the planet and economic development.



Bellevue Way NE

DO NOT BLOCK INTERSECTION

BoConcept

Several pedestrians are walking on the sidewalk, including a woman in a blue dress, a woman in a pink jacket, and a woman pushing a stroller.

Two silver SUVs are driving through the intersection. The SUV on the left is a Chevrolet Equinox, and the SUV on the right is a Toyota Highlander.

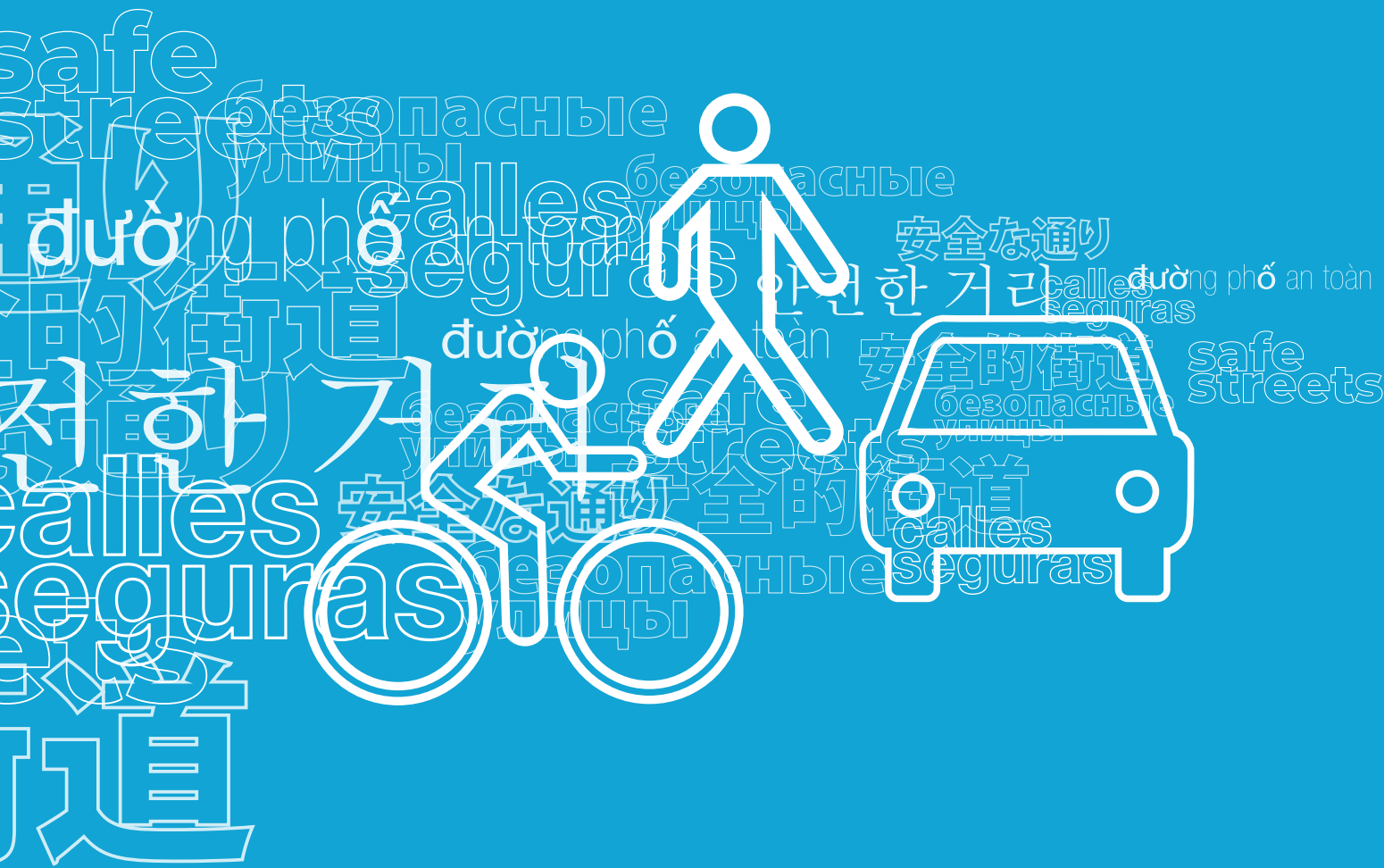
A pedestrian wearing a black hoodie and a blue baseball cap is walking across the crosswalk.

A pedestrian wearing a green hooded jacket and pink shoes is walking across the crosswalk.

A pedestrian wearing a grey long-sleeved shirt and black pants is walking across the crosswalk.

A pedestrian wearing a grey jacket and blue jeans is walking across the crosswalk.

A pedestrian wearing a black hooded jacket and blue jeans is walking across the crosswalk.



< People traveling safely on foot and in cars in Downtown.

A Shared Responsibility

We all share a responsibility to use the roads safely and with consideration for all other road users. Responsible road users comply with the rules of the road, pay attention to their environment and try to improve their own safety and that of others. They also act as role models by engaging in only safe behaviors when using the roads (Figure 28). Ideally, people will not only adopt safer behaviors themselves, but will demand it from everyone involved in the road system.



Figure 28: Bellevue Vision Zero pledge engagement participant reflects on a personalized strategy for avoiding speeding while driving.

What Is Acceptable Behavior?

Although most road users in Bellevue are responsible most of the time, some still behave in ways that cause unsafe situations for themselves and others (Figure 29). Speeding, driving under the influence, and using a handheld electronic device while driving are a few common dangerous behaviors that can have tragic consequences. While there have been successes in some safer behaviors—seat belt use has become part of mainstream driving culture—other enduring hazards appear to be embedded in driver attitudes despite its inherent dangers (see [NHTSA Seat Belts](#)). For example, while 89 percent of drivers say they disapprove of speeding on a residential (neighborhood) street 40 percent of those same drivers say they have driven 10 mph over the speed limit on a residential street in the past month (see [AAA 2018 Traffic Safety Culture Index](#)). And, in another study of 3.1 million anonymized drivers it was found that drivers use their cell phones 3.5 minutes out of every hour on the road (see [Zendrive Distracted Driving Study](#)).



Bellevue, WA Police ✓
@BvuePD

Follow

Please avoid Richards Road near I-90 in Factoria. Officers are investigating a suspected DUI crash involving 8 cars with injuries. Traffic is blocked.



Bellevue, WA Police ✓
@BvuePD

Follow

Traffic crash, 5100 blk Lakemont Blvd. Driver is suspected of being on cell phone. Thankfully minor injuries. Reminder: ANY use of handheld electronics is prohibited while driving, even while stopped at a signal. 🚗 + 🚑 + 🚒 + 🚔 + 🚒 + 🚑 + 🚗



Figure 29: Bellevue Police Department's Twitter feed is leveraged to communicate on crashes including these – one involving a DUI driver and the other a distracted driver.

Creating A Safety Culture

Making the right choice to designate a sober driver, put the phone down, and maintain safe speeds are all choices we can make daily to keep our roads safer. In support of Safe People, the city has coupled public education with traffic enforcement to target behavioral hazards known to cause fatal and serious injury crashes (see [Fehr & Peers Memo](#)). For example, Bellevue's approach currently includes:

- Bellevue Fire Department does a DUI re-enactment for high schools annually in the spring (Figure 30).
- Most Bellevue Elementary Schools participate in the AAA School Safety Patrol program, which organizes and teaches dedicated student volunteers to direct their peers in safely interacting with school traffic.
- Bellevue encourages and provides support for annual Walk to School Day in October; approximately 11 schools participate each year.
- The "Alive at 25" driver awareness course teaches young drivers to be aware of many of the typical driving hazards facing young motorists.

Some of the more effective approaches to education are peer-to-peer traffic safety culture campaigns that "find which beliefs within a community are positively related to traffic safety and then grow those beliefs among all community members" (see [Montana State University Traffic Safety Culture Primer](#)). These campaigns involve discussing the risky behavior, acknowledging that most people do not engage in the behavior, and promoting existing behaviors that lower crash risks. For example, in 2019 the City of Bellevue partnered with the Bellevue School District and Washington DECA organization in the Tune In, Not Out Campaign (TINO) campaign (see [Assessment Report](#) and Figure 31). TINO was a student-organized music-themed campaign with a pop-up musical concert, a school-wide market survey and city-wide media exposure. Through positive safety messaging TINO aimed at addressing distracted driving among teens because crashes disproportionately affect young people (i.e., although people 16-25 years old only make up 10.6 percent of Bellevue's population, 25 percent of drivers involved in a fatal or serious injury crash is between 16 and 25 years of age).

For some road users, the most effective way of deterring extreme and illegal road use is through high visibility policing (see [Bellevue BeatBlog](#)) and the use of red light running and automated speed enforcement backed by appropriate sanctions (see [Bellevue Traffic and Photo Enforcement](#)). University of Washington (UW) researchers found that when police issued tickets for speeding based on automated photo enforcement, the rate of speeding violations decreased nearly 50 percent in school zones, compared to when drivers received written warnings (see [UW Study](#)).

Finally, the city recognizes that Safe People strategies will only be effective when paired with other Safe Systems strategies. Although we must encourage people to take responsibility to use the transportation system as intended we must also protect them from injury even if they make a mistake or have a lapse in attention or judgement. As such, a Safe Systems approach does not allow educational campaigns to detract attention from proactive safety solutions (designing "self-enforcing roads" in which the road design itself promotes safe speeds) that result in context changes that can eliminate exposure.

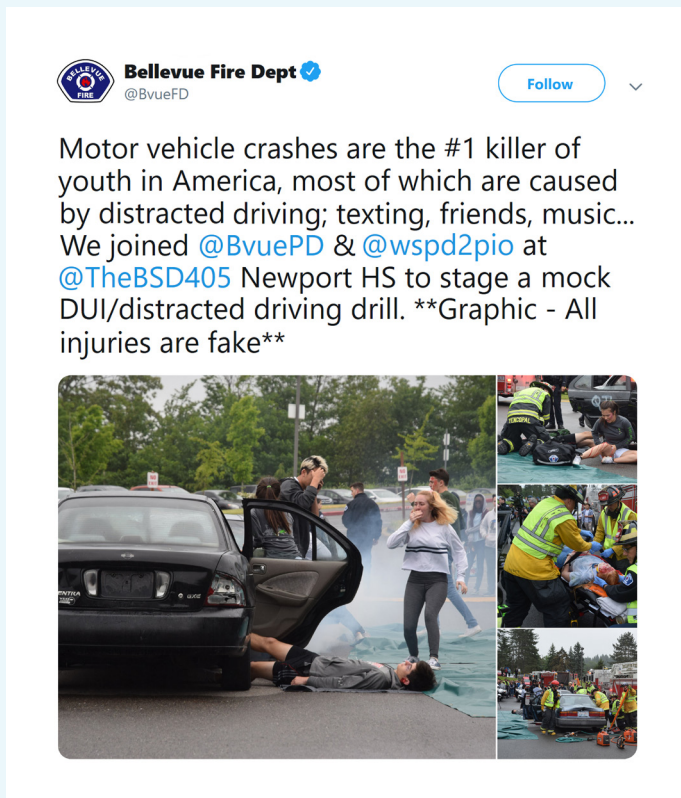


Figure 30: Bellevue Fire Department's Twitter feed referencing their targeted DUI re-enactment drill at Newport High School (see [Bellevue Reporter](#)).



Figure 31: TINO (Tune In Not Out) campaign partners at the media announcement included (from left) Washington DECA executive leader Lori Hairston, Bellevue Mayor Lynne Robinson, Interlake High School student Olivia Sun, and Bellevue School District superintendent Ivan Duran.

Goal and Strategies



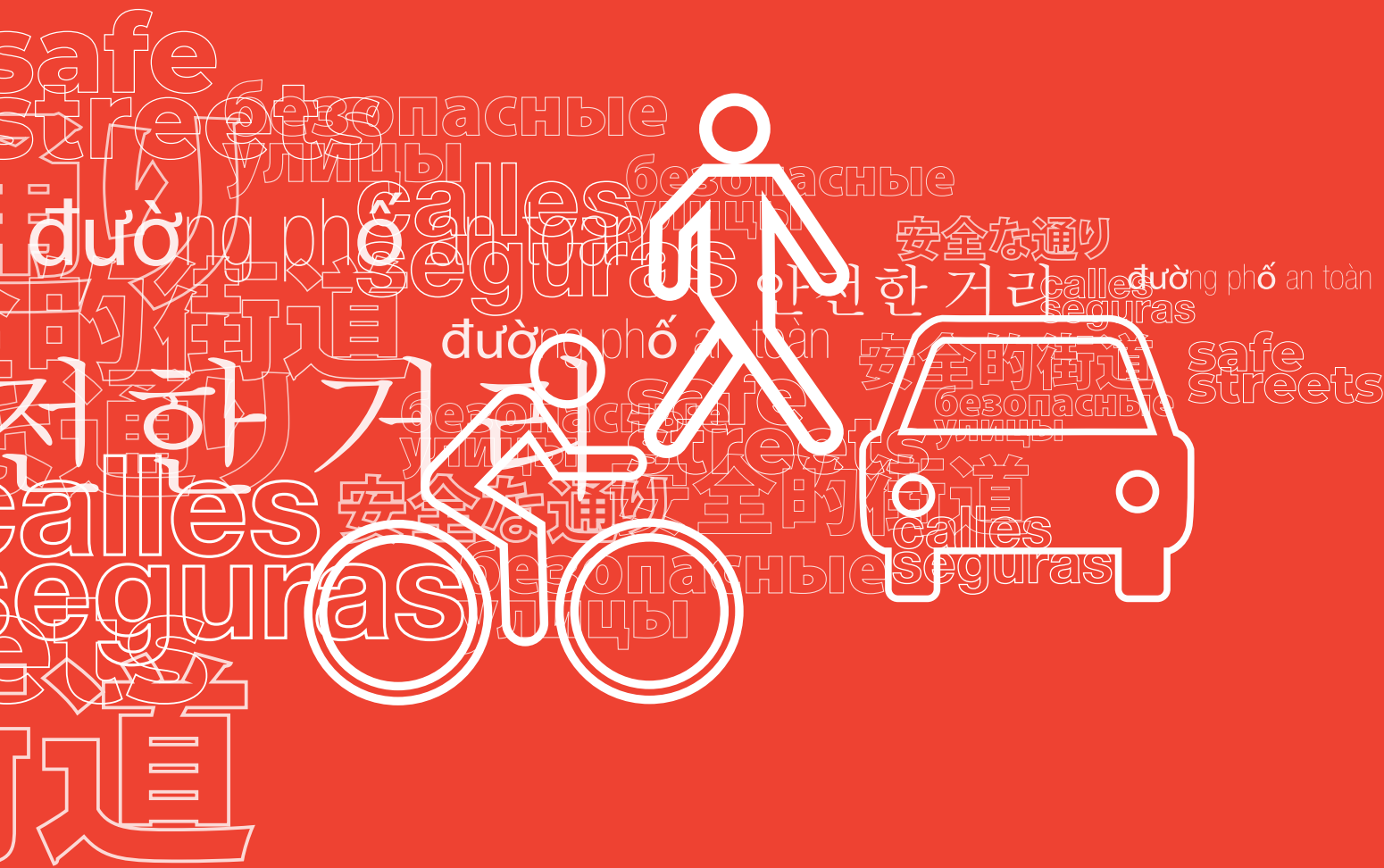
Engage and educate people to take personal responsibility in Vision Zero by encouraging them to use the transportation system as intended and utilize all safety features in their mode of travel.

1. Launch citywide campaigns to build awareness around safety and Vision Zero.
2. Improve motorist training on safety and rules of the road.
3. Educate pedestrians, bicyclists, and scooter riders on safety and rules of the road.
4. Educate children and students on safety and rules of the road.
5. Foster and promote safety champions in the community.
6. Use data to inform coordinated actions across city departments to influence public commitment to Vision Zero.



20th St

17th St



< A mini-roundabout at SE 40th Street and 138th Avenue SE reduces the number and severity of potential conflicts and provides short, high-visibility pedestrian crossings.

The Bellevue Context

Many of Bellevue's roads were designed and built in the 1950s and 1960s, in accordance with the standards and road building practices of the day. At the time, the priority for roadway design was to quickly and efficiently move cars (Figure 32). Reflecting the modernist culture and the automobile-oriented development patterns of that era—and the expectation that people would drive for all their travel needs—these roadways often lacked sidewalks and featured few pedestrian crossings. Bicycle facilities were non-existent, as the utilitarian cycling culture that influenced other cities earlier in the century had by mid-century been replaced with the notion that cycling was only a recreational activity. Since then, much has changed.



Figure 32: Photos of Downtown Bellevue in the 1960s, during an era often portrayed as the golden age for American automobiles. Main Street at Bellevue Way looking north (above) and NE 8th Street looking west (below). Credit: [Digital Collections](#) / Seattle Post-Intelligencer Collection, [Museum of History & Industry](#), [Seattle](#)

Today, dependence on the automobile is being balanced with infrastructure investments that facilitate safe mobility by all modes along networks of Complete Streets (Figure 33). Complete Streets make it safe, comfortable, and convenient to walk, bike, and roll to get to work, school, shops, services, parks, transit, and anywhere else people want to go (Figure 34). Bellevue's commitment to Complete Streets is in alignment with the Safe Systems approach to Vision Zero.



Figure 33: Today, these and many streets in Downtown have been rebuilt to more safely serve more people, but more work remains to be done. For example, the bike lanes along parts of Main Street are incomplete and may not be comfortable for all users, and on Bellevue Way, people bicycling must either share sidewalks with people walking or the roadway with people driving.

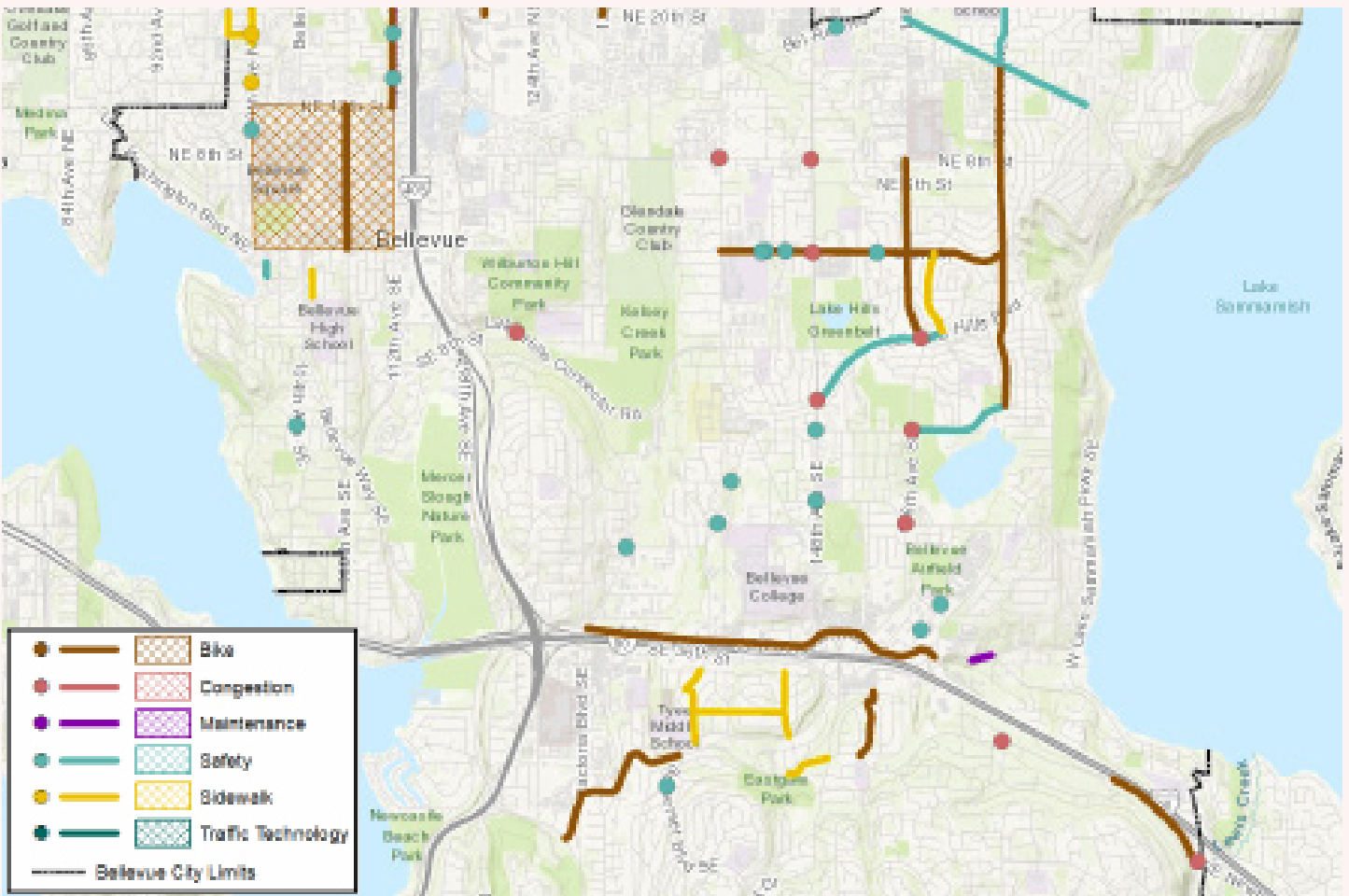
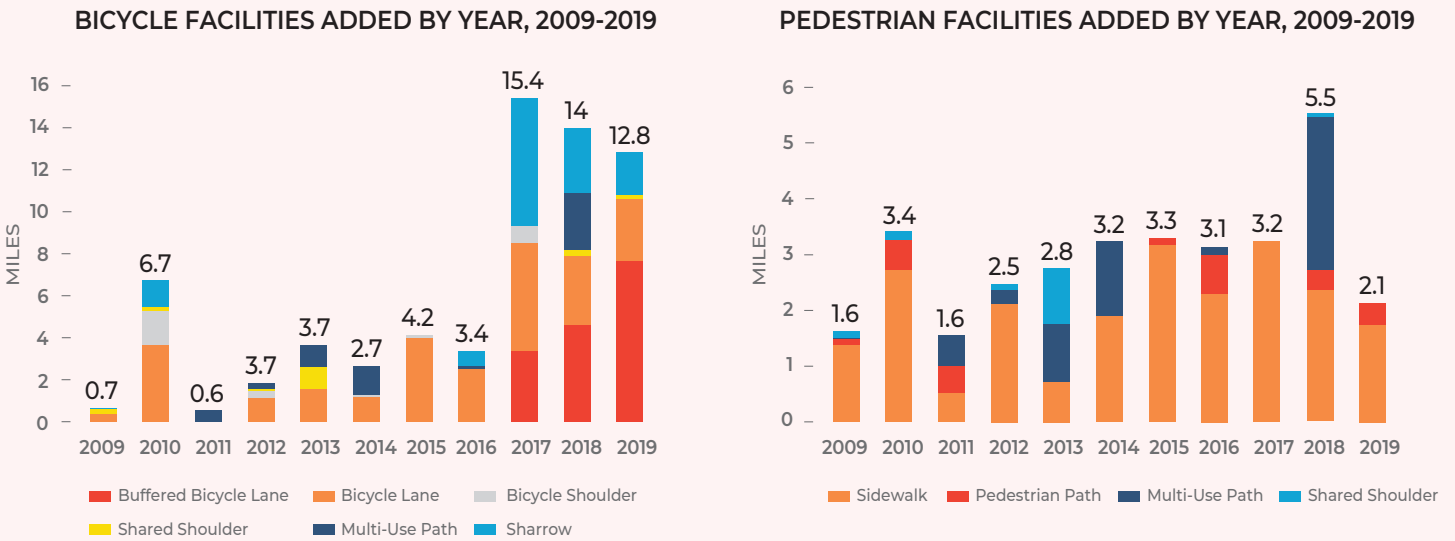


Figure 34: In 2016 Bellevue voters approved the [Neighborhood Safety, Connectivity, and Congestion Levy](#), which supplements existing neighborhood safety, sidewalk, bikeway, maintenance, and motor vehicle traffic management programs with approximately \$5.4 million annually. As a result, more than 42 miles of bike network improvements have been implemented across Bellevue in the past three years, with an increasing focus on bikeways that provide additional separation from adjacent motor vehicle traffic (i.e., buffered bike lanes). See the [Pedestrian and Bicycle Progress Webmap](#) for more information.

Minimizing Crash Exposure

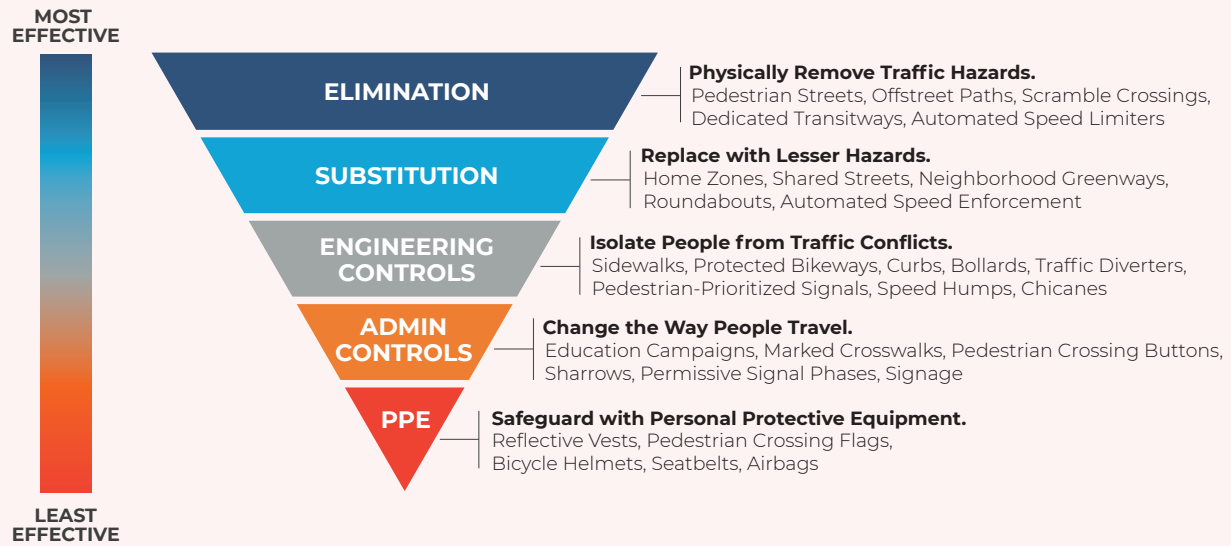
A Safe Systems approach recognizes that people make mistakes. Impairment, speeding, distracted driving, aggressive driving these are behaviors to be discouraged, and Safe People strategies lay out a coordinated set of actions to deter them. However, simply communicating safety messages is unlikely to lead to a change in behavior if a road is designed in a way that allows or unintentionally encourages unsafe behaviors. A review of the National Highway Traffic Safety Administration’s [Countermeasures that Work](#) reflects that there is often insufficient evaluation data available on standalone education campaigns; they are more effective when paired with complementary Safe Systems strategies.

To move towards Bellevue’s goal of Vision Zero it is necessary to advance Safe Streets strategies that enable and encourage safe behaviors by design. In other words: if you can’t change the person, change the world so that

the person will follow (Figure 35). This approach results in streets that are ‘self-enforcing’ in spite of human fallibility, preventing serious crashes, and where crashes do occur, minimizing the risk of severe injury (see [FHWA Self Enforcing Guidance Report](#)).

Infrastructure that supports this approach includes treatments that reduce vehicle speeds, provide convenient and intuitive connections to the places where people want to go so it is easy to choose the safest path over riskier shortcuts, and physically separates—in time or space—different types of road users, especially along streets where it is not possible or appropriate to reduce driving speeds. This results in roadway design practices that minimize situations where there are likely to be large differences in speed and/or mass operating together or at conflict points. These streets keep all people safer, even when people make mistakes (Figure 36).

HIERARCHY OF STREET SAFETY CONTROLS



Adapted from versions created by Cathy Tuttle and Queen Anne Greenways. Based on Recommendations of Hazard prevention and Control created by US Department of Labor Occupational Safety & Health Administration and the Centers for Disease Control and Prevention. Effective controls protect people from workplace hazards; help avoid injuries, illnesses and incidents; minimize or eliminate safety and health risks; and help employers provide workers with safe and healthful working conditions and help to prevent and control hazards.

Figure 35: Safe Streets strategies eliminate the source of crash exposure; this is a more effective safety countermeasure than mitigating the impact of a crash through user protections (e.g. high visibility clothing).

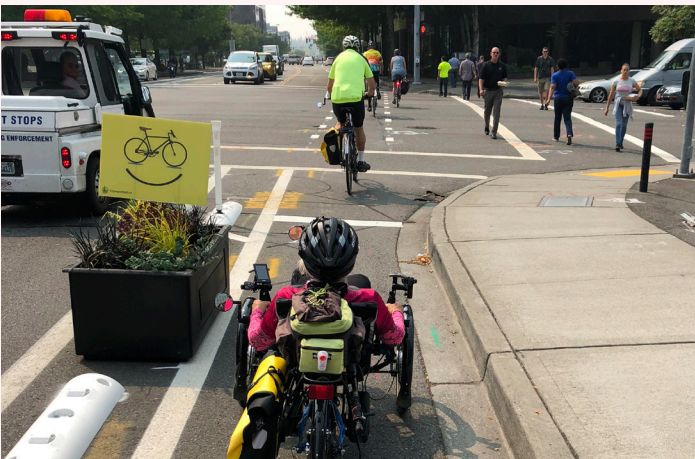


Figure 36: From left-to-right and top-to-bottom: signalized pedestrian crossing project on 116th Avenue NE north of NE 12th Street; neighborhood sidewalk project on 119th Avenue SE connecting to Newport Heights Elementary School; paint-and-post curb extension project at Main Street and 101st Avenue SE; mini-roundabout project near Tye Middle School; Downtown Demonstration Bikeway project along 108th Avenue NE; signalized mid-block crossing project on NE 1st Street at Downtown Park.

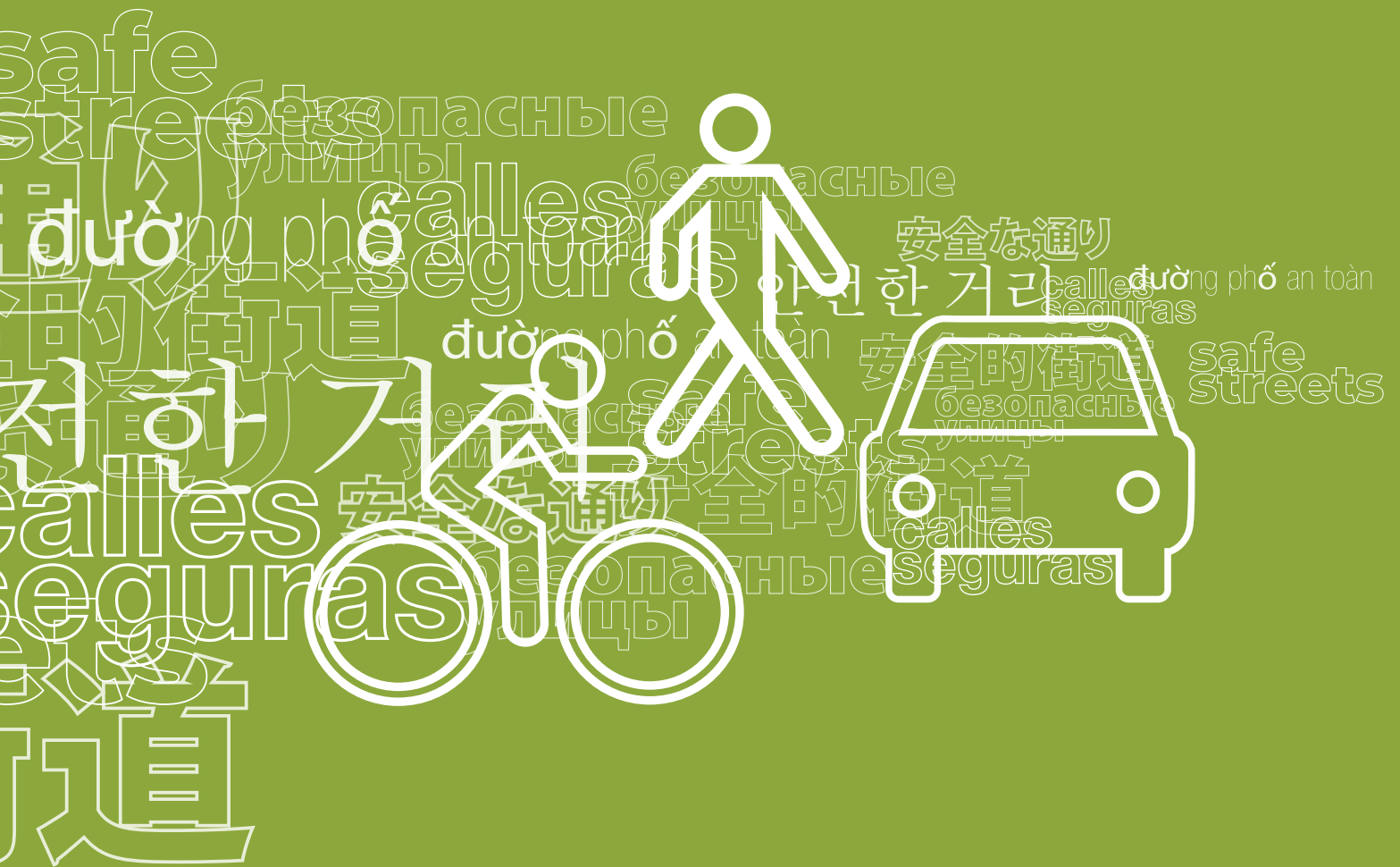
Goal and Strategies



Improve safety by significantly reducing the likelihood of crashes and minimizing the consequences of actual crashes.

1. Implement projects citywide that make it safer to walk, bike, and take transit (and where relevant to make it more comfortable and accessible).
2. Implement projects citywide to make it safer to drive.
3. Create public spaces that are safe and attractive for people walking and bicycling.
4. Establish clear priorities for curb usage.





< Most arterial streets in Bellevue currently have speed limits of 30 mph or greater, presenting a significant risk of injury in crashes—especially with vulnerable road users.

Higher Speeds, Higher Risk

Research is conclusive that speed increases crash risk in two ways: (1) speed increases the likelihood of being involved in a crash, and (2) it increases the severity of injuries sustained by all road users in a crash (see [ITF Speed and Crash Risk](#)). Even small reductions in speed greatly reduce the likelihood of severe injury or death when crashes occur (Figure 37). Therefore, speed management is a critical part of a Safe Systems approach.

A History of Traffic Safety

The City of Bellevue has many long-standing programs aimed at reducing speeds (see [Traffic Safety Program](#) and [Traffic Enforcement Program](#)). Various traffic calming projects, radar feedback signs, and targeted police enforcement campaigns have typically shown reductions in speeds following implementation. Projects such as the implementation of 20 MPH school zone flashing beacons and automated speed traffic cameras in school zones have proven to dramatically reduce speeds during school pick-up and drop-off periods (Figure 38).

HIT BY VEHICLE
TRAVELING AT
**20
MPH**
10%
DEATH RISK



HIT BY VEHICLE
TRAVELING AT
**30
MPH**
40%
DEATH RISK



HIT BY VEHICLE
TRAVELING AT
**40
MPH**
80%
DEATH RISK



Figure 37: The graphic reflects the effect of speed on a driver's field of vision and the risk of pedestrian death ([NHTSA](#)). In a crash, the human body can only tolerate a certain level of physical force before serious injury or death is inevitable. That's why setting safe speed limits, and ensuring drivers comply with them, is critical.



Figure 38: From left-to-right and top-to-bottom: speed hump constructed in advance of the Tye Middle School roundabout; school zone flashing beacon project at Eastgate Elementary; SE 60th Street radar feedback sign; Stevenson Elementary School speed zone.

Doing More With Data

Despite ongoing progress in some areas, excessive speeding remains the third highest reported contributing factor in all fatal and serious injury collisions in Bellevue. Even so, according to the Governors Highway Safety Association, much remains unknown about speeding as a crash causation factor (see [Speeding Away from Zero](#)).

Collision statistics likely underreport the role that speeding plays in traffic crashes in Bellevue since the actual travel speed of a vehicle is not recorded on Washington’s crash reporting form, only the roadway posted speed. Although speed can sometimes be calculated during major crash investigations, analysts typically do not know how fast vehicles were traveling at the time of the crash. Furthermore, the majority (at least two-thirds, according to the [Washington State Target Zero Plan](#)) of speed-related crashes are coded as “Exceeding Reasonable Safe Speed” as opposed to “Exceeding Stated Speed Limit.”



Figure 39: Bellevue Police Department’s Twitter feed is often used to communicate with the public about speeding concerns.

Additional insights on speeding behavior in Bellevue is derived from resident inquiries. From 2015–2017, the traffic management group responded to 1,721 related resident inquiries—many of which were safety-related—with more than 200 of those calls being explicitly related to speeding. Many calls are a combination of some other concern with speeding as an ancillary concern so the number of speeding inquiries is likely in excess of 200. Further, this number doesn't account for all requests for speed enforcement that the Police Department receives.

New technologies offer the potential to better understand speeding behavior and inform proactive speed management efforts (Figure 40). In any case, higher operating speed—regardless of whether the driver is exceeding the posted speed limit or driving too fast for conditions—increases exposure to dangerous outcomes. This is both in terms of the likelihood of being involved in a crash, as well as in terms of the severity of injuries sustained by those involved. It is for this reason that

Bellevue's streets with a posted speed limit of 35 MPH or more see 42 percent of fatalities and serious injuries but account for only 13 percent of total street mileage.

Speed is, as evidenced in the National Transportation Safety Board (NTSB)'s [Reducing Speeding-Related Crashes Involving Passenger Vehicles](#), one of the key action areas in a Safe System approach. In their [recommendations](#), the NTSB calls for: a concerted effort to develop and implement a program to increase public awareness of speeding as a traffic safety issue; modernization of the traditional practices used to set speed limits to include explicit consideration of factors such as crash experience, pedestrian and bicyclist usage, and roadway and roadside development characteristics; increased use of automated speed enforcement and updated guidelines on implementing automated speed enforcement systems; and establishing programs to incentivize local speed management activities. Bellevue's Strategic Plan builds upon these NTSB recommendations.



Figure 40: A road user detected through video analytics was running a red light and exceeding the posted speed limit by 33 mph through the intersection of Bel-Red Road and 148th Avenue NE. Bellevue's partnership with Transoft Solutions and Together for Safer Roads detected 8 million motorists during the one week study. Of these motorists, 870,000 (or 10.8 percent) were traveling over the posted speed limit, and half of those who were speeding drove at or in excess of 11 mph above the posted speed limit (see [Speeding Analysis Report](#)). State regulations do not allow the use of traffic cameras to enforce speeding except in school speed zones.

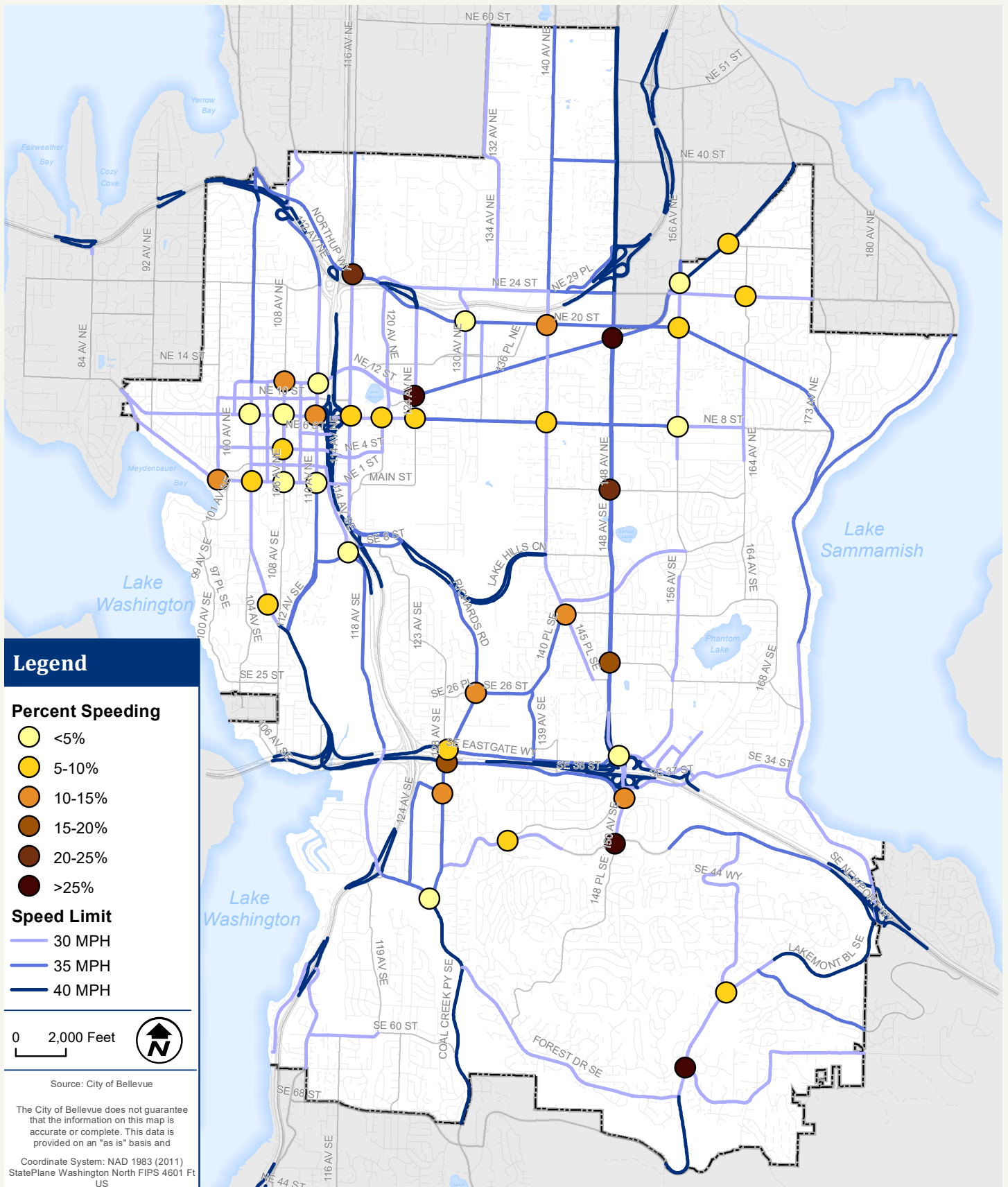


Figure 41: Bellevue—in partnership with Transoft Solutions and Together for Safer Roads—completed a network-wide speeding analysis that highlighted where road users were observed traveling above the posted speed limit at 40 study intersection over a one-week period (9/13/19 – 9/19/19). The study observed 870,000 speeding events, indicating that approximately 10.8% of drivers were speeding (see [Speeding Analysis Report](#)).

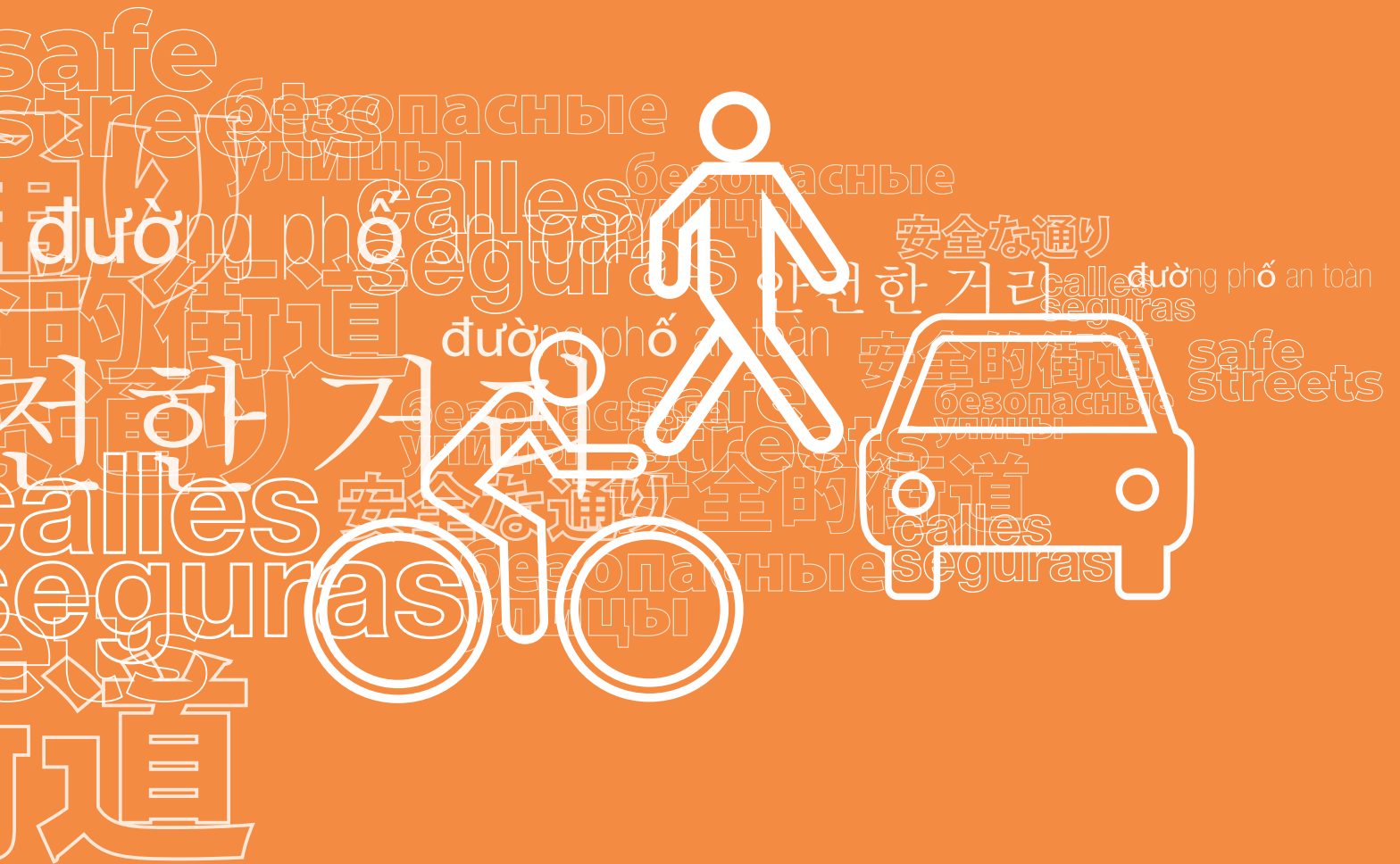
Goal and Strategies



Implement, educate about, and enforce speeds that reduce the risk of bodily harm for people inside and outside of vehicles.

1. Design or redesign roads and intersections to manage speeds as appropriate for the intended use.
2. Assess and evaluate speed limits citywide and create a speed management program to address speeding concerns based on applicable data.
3. Educate people on the link between speed and safety, and, in the process, change drivers' risk perceptions of enforcement actions or causing a crash.
4. Create and promote neighborhood-based programs that aim to lower traffic speeds.
5. Use and expand automated speed enforcement (ASE).
6. Employ High Visibility Enforcement actions to increase compliance of safe speeds.





< Bellevue's safety mascot PedBee encouraging helmet use and safe riding during the city's bike share pilot.

Current Technology Yields Safety Results

Many factors determine crash severity and survival. The presence and use of safety features in vehicles—seat belts, airbags, and other technologies—are responsible for saving tens of thousands of lives each year (see [National Highway Traffic Safety Administration](#)). Safe Vehicle strategies—that manage crash impact energies to survivable levels and alert drivers of immediate road dangers—are therefore a critical component of the Safe Systems approach to Vision Zero.

Currently available Advanced Driver-Assistance Systems (ADAS), such as automatic emergency braking, adaptive cruise control, and lane-keeping have demonstrated benefits in preventing or mitigating serious injury crashes (see [Insurance Institute for Highway Safety](#)).

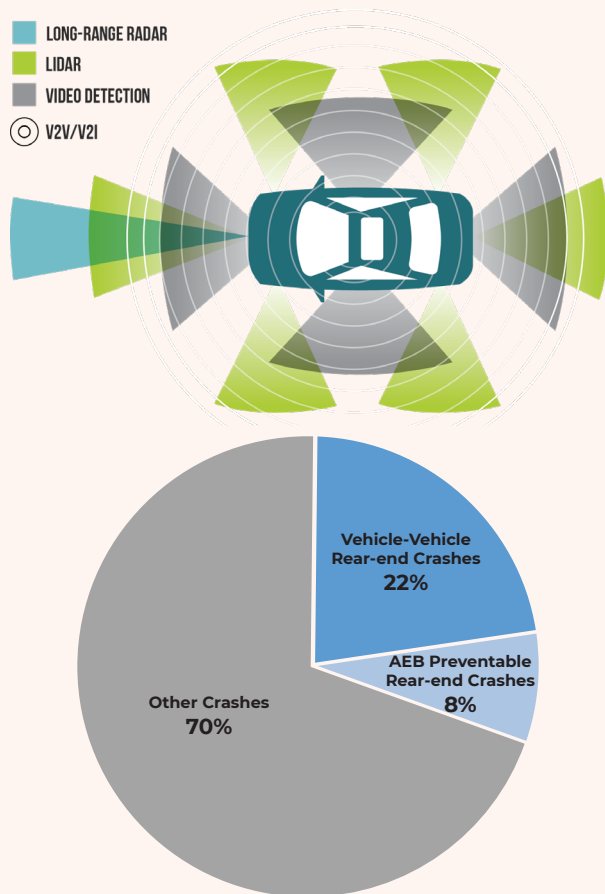


Figure 42: Society does not need to wait for fully autonomous vehicles. Various ADAS technologies are already able to help prevent crashes. For example, the Washington Traffic Safety Commission (WTSC) is promoting automatic emergency braking, which is readily available and warrants widespread adoption because of its safety benefits (see [WTSC flyer](#)).

Each year, these technologies are offered on a greater number of new vehicles and their safety performance improves. In recognition of these benefits, the [Washington Target Zero Plan](#) identified as a statewide road safety strategy (CAT. 1.5) a commitment to: “Encourage purchasing of vehicles with ADAS features for state and local fleets and provide employee training for safe and effective operation” (Figure 42).

With approximately 660 licensed vehicles and trailers in the city’s fleet, there is an opportunity as these existing vehicles are retired/replaced to prioritize the purchase of safer vehicles for Bellevue’s new fleet (Figure 43). Similar efforts are underway in other Vision Zero cities (see [Government Fleet](#)).



Figure 43: The City’s fleet spans multiple departments and serves diverse job functions. Except for certain specialized equipment, these vehicles are operated on streets where people are walking, biking, rolling, and driving. Just as the City’s Environmental Stewardship Initiative helped lead to the purchase of low- and zero-emission vehicles, Vision Zero can influence fleet safety.

Harnessing Technology and Modal Options

Looking to the future, the rate of technology development, both in vehicle systems and in overall connectivity, is expected to increase rapidly. To accelerate the deployment of these technologies, the United States Department of Transportation (USDOT) envisions new partnerships among manufacturers, technology providers, and the public sector to identify and evaluate safety benefits and increase consumer interest and adoption through education and incentives (see [USDOT Preparing for the Future of Transportation](#)). The city has been an active participant in the [Washington State Autonomous Vehicle Work Group](#) and its efforts to maximize the potential reach of vehicle automation, connectivity, electrification, and shared mobility (Figure 44).

Finally, Safe Vehicle strategies promote multimodal mobility strategies that are found to improve road safety conditions (Figure 45). According to [analysis](#) released by American Public Transportation Association (APTA), public transit is increasingly recognized as a core strategy to support safe mobility. According to APTA, transit is ten times safer per mile than traveling by car because it has less than a tenth the per-mile traffic casualty (injury or death) rate as automobile travel.

Around the world, cities that have emphasized multimodal mobility strategies for people who are walking, bicycling, and using public transportation have seen consistent reductions in traffic deaths for all roadway users. Reductions in serious injuries and fatalities—by as much as 50 percent in some cases—are found to occur in cities that have advanced policies resulting in transit-supportive land use, investments in sidewalks and bicycle lanes, and collaborations with transit agencies to implement transit speed and reliability projects (see [World Resources Institute](#)).

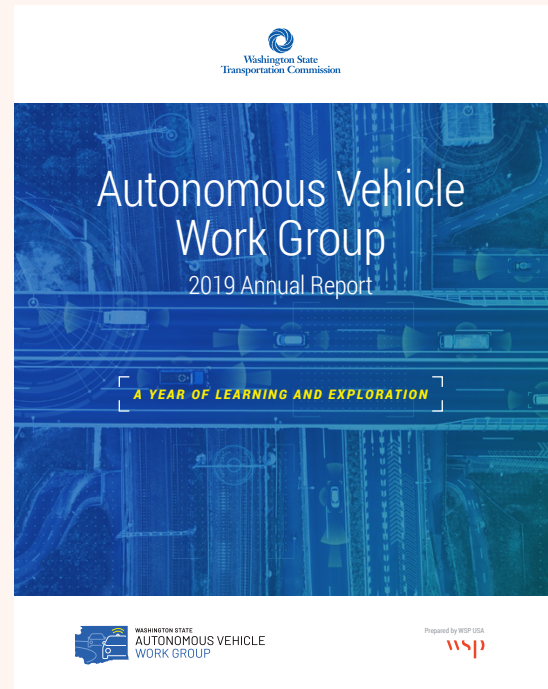


Figure 44: Existing and emerging vehicle technologies promise significant advances in safety (see [2019 AVWG Annual Report](#)).



Figure 45: The [Bellevue Transit Master Plan](#) (adopted by the City Council in 2014) identifies transit solutions as an increasingly important part of the local and regional transportation system that supports land use goals and multi-modal level of service standards as set forth in the Comprehensive Plan. There have been no serious injuries or fatalities documented by people using public transit in Bellevue in the 10+ years of data reviewed for this Strategic Plan.

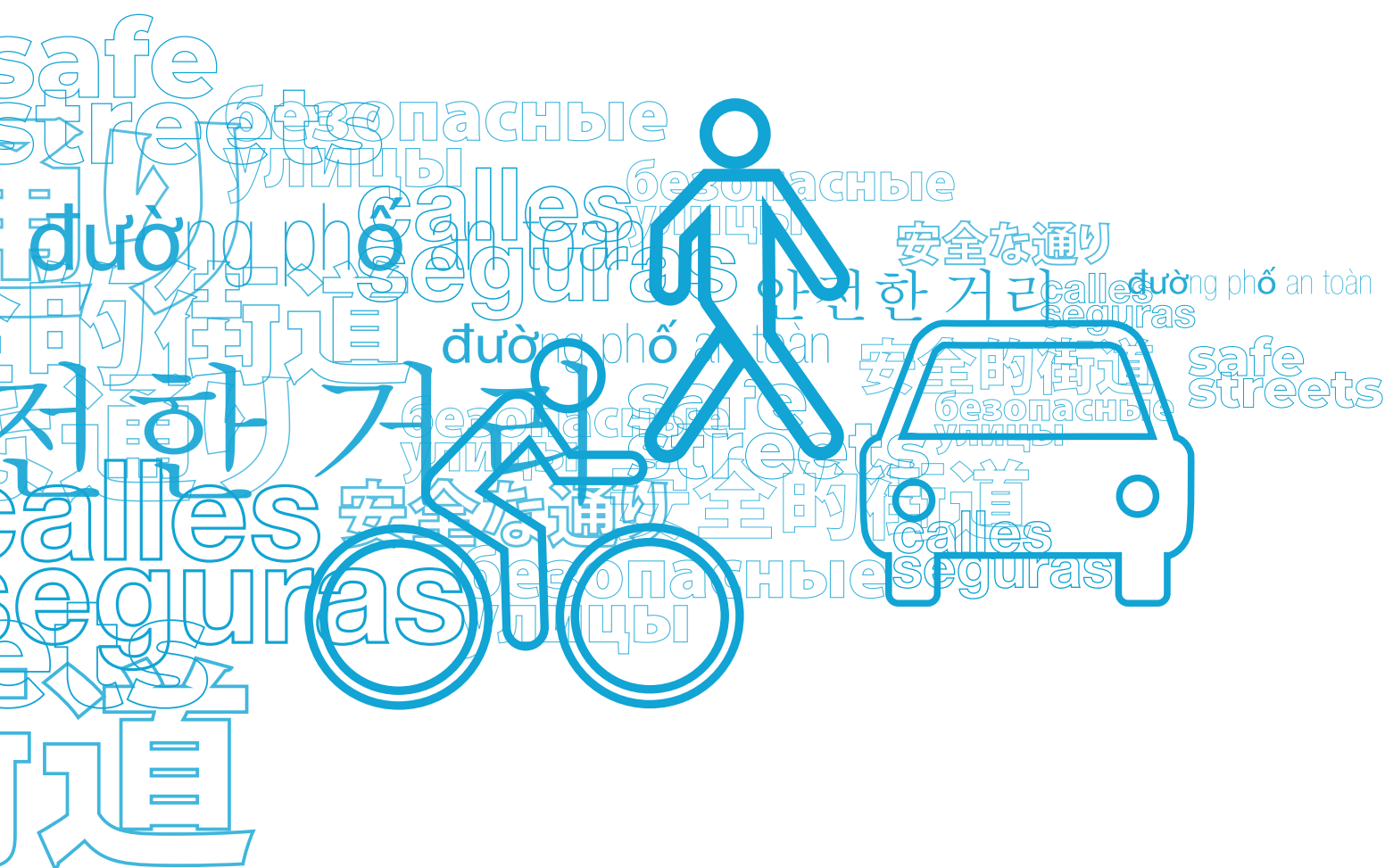
Goal and Strategies



Implement and influence improvements to vehicle design and technology to reduce risk of injury to people inside and outside the vehicles.

1. Improve safety of private vehicles operated on our roads.
2. Improve safety of public vehicles on our roads.
3. Improve safety of shared mobility.
4. Leverage new technologies for safety data collection.
5. Create a safe environment for autonomous vehicle (AV) testing and implementation.
6. Implement safety enforcement technologies on public vehicles.





< City Councilmembers celebrate the grand opening of the Downtown Demonstration Bikeway on 108th Avenue NE in 2018—made permanent in 2019 following an evaluation of safety, efficiency, and livability outcomes.

Strong Leadership

Leadership is instrumental in moving from the planning to the implementation phase. Leaders bring people together, provide direction, and motivate people to participate (Figure 46). Sustained political commitment and multi-disciplinary leadership that prioritizes road safety—among many competing public sector priorities—is required to successfully advance the Vision Zero Safe Systems approach, strategies, and actions (see [Vision Zero Network](#)).

This planning process began in 2015 when the Bellevue City Council adopted the goal of Vision Zero, signaling a sense of urgency that a new approach to road safety is needed. As a High Performance Organization, the city is constantly learning from international best practice to derive insights applicable to Bellevue (Figure 47). Returning from a foundation-funded delegation trip to the cities of Malmo and Copenhagen, the council provided further impetus for safe mobility options through the Pedestrian and Bicycle Implementation Initiative and the adoption of a Complete Streets policy in 2016. Additionally, in 2016 the council supported and the voters ultimately approved a Neighborhood Safety and Connectivity Levy that supports the implementation of transportation safety projects (Figure 48).

Also in 2016, the council adopted Vision Zero into Bellevue's [Comprehensive Plan](#)—the city's foundational policy document—which establishes the community's vision for the future, lays the groundwork to guide city actions, and provides a framework so city departments and community organizations work together towards common goals. The [Transportation Element](#) of the Comprehensive Plan commits the city to Vision Zero and includes numerous policies and implementation targets in support of safe mobility options. Beginning in 2019, the Transportation Commission worked with staff to develop the approach and strategies.

Sustained Leadership

In June 2020, the City Council adopted the Safe Systems approach, which clarifies the steps needed to move towards Vision Zero. With the approach and strategies in place, the city's Leadership Team of department directors chartered a technical Core Team and an executive Steering Team, which developed and approved the Vision Zero Strategic Plan. These two teams will build and sustain leadership, collaboration, and accountability as staff advances from Vision Zero planning to implementation.



Figure 46: Bellevue City Councilmember (now mayor) Lynne Robinson welcoming attendees to the city's first Vision Zero Summit at Overlake Medical Center.

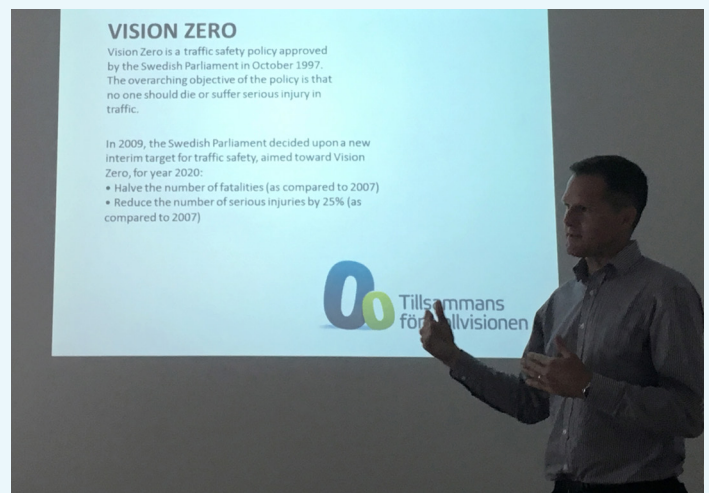


Figure 47: City Councilmembers and staff participated in a delegation trip to Sweden and Denmark in 2016 that was organized by i-Sustain with city participation funded by scholarships from Scan Design Foundation. The delegation trip included meetings with Vision Zero practitioners who have achieved significant safety improvements in the cities of Malmo and Copenhagen.

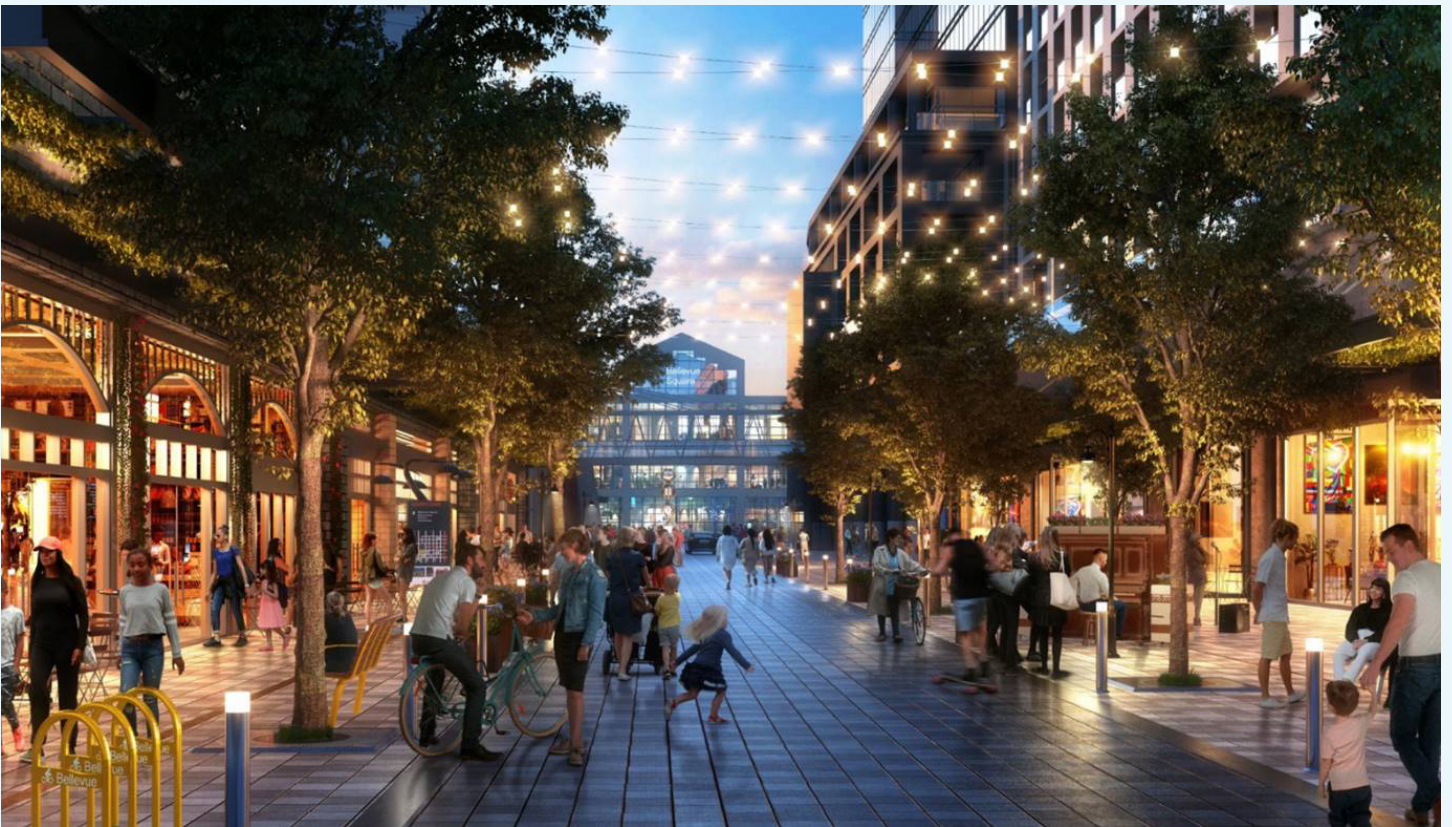


Figure 48: City Council is leading on transformative land use and transportation projects that have the potential to redesign Bellevue's physical environment in support of road safety. The Grand Connection is one such project, establishing a vision and adopting design guidelines and standards to realize a signature experience of place along a multipurpose corridor from Meydenbauer Bay Park to Eastrail. Conceptual illustrations reflect a vision for an I-405 lid and multipurpose path (top) and shared space street along NE 6th Street (bottom).

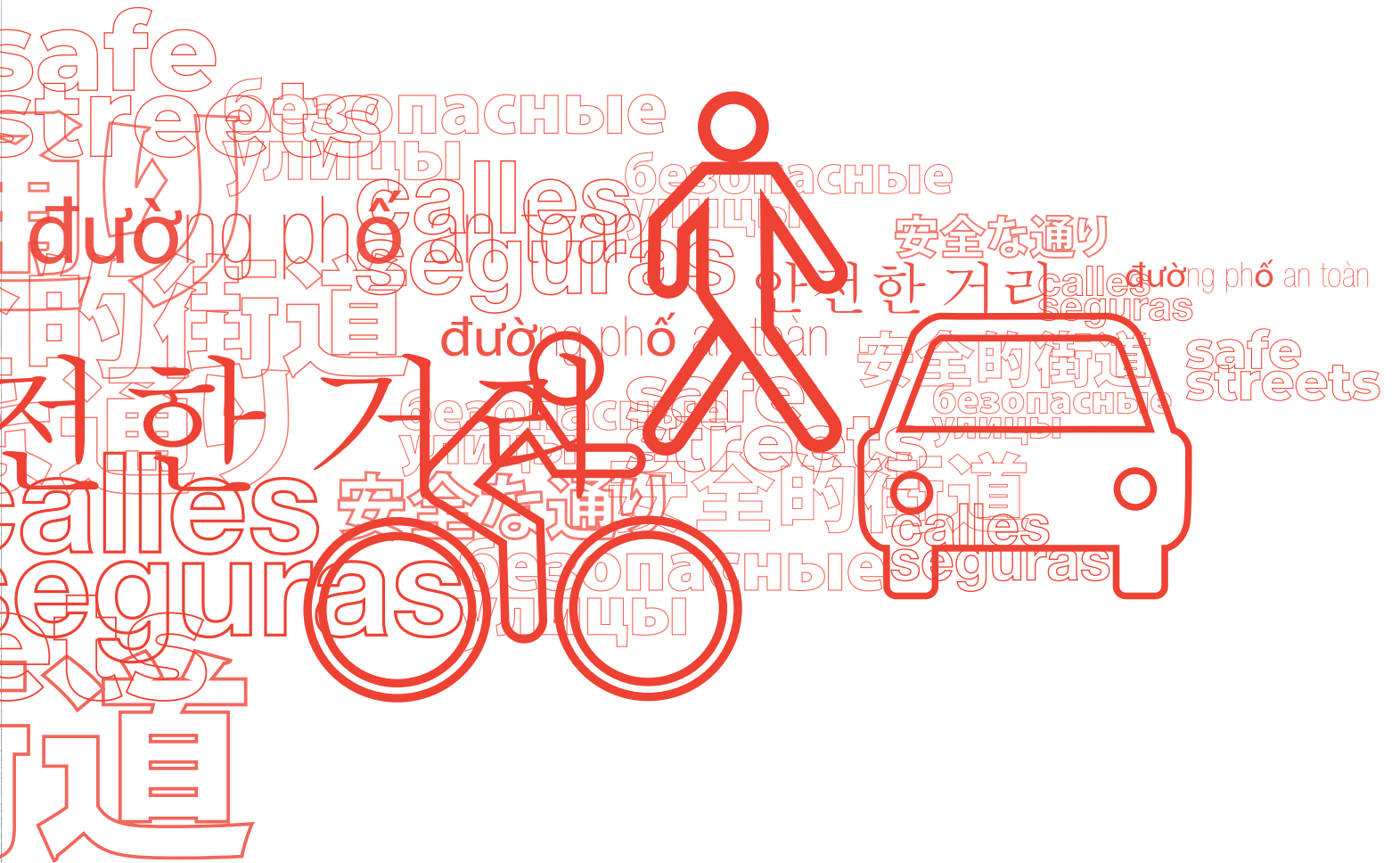
Goal and Strategies



Commit all levels of the city to keep learning, refining our skills, and expanding our toolbox with the best available strategies, policies, and actions.

1. The Mayor, elected officials, and department leaders commit to collaborating to strive for zero traffic fatalities and serious injuries within a specific timeframe.
2. Employ meaningful and accessible community engagement toward Vision Zero with a focus on equity.
3. The Vision Zero Action Plan guides work and includes clear goals, measurable strategies, comprehensive data collection, timelines, and responsible stakeholders.
4. Decision-makers and system designers advance projects and policies that keep safety as a key priority.





Culture

According to AAA's publication [Improving Traffic Safety Culture in the United States](#), "Road safety's cultural paradigm consists of the implicit shared values and beliefs that determine the way in which the society organizes and acts to assure safe, sustainable mobility."

The Safe Systems approach brings together road users, government, and other Vision Zero stakeholders to:

- Proactively advance unified, culture-based strategies that foster shared values and beliefs;
- Reduce risky behaviors and increase protective behaviors;
- Increase public and staff acceptance of effective traffic safety programs; and
- Drive actions that prevent serious injuries and fatalities (see [CHSC Traffic Safety Culture Primer](#)).

Sharing the Same Vocabulary

Shifting Bellevue's traffic safety culture requires that we understand current perceptions, attitudes and behaviors of those who use our transportation system (all travelers in Bellevue) and those who plan, design and construct it (city employees). To understand our community's and organization's culture, staff administered a perception survey to both groups. The results (reflecting 1,731 community and 236 staff responses) provide a starting point to share similar vocabulary and understanding of what we currently value in our transportation system. It creates a baseline from which to assess the community's traffic safety attitudes over time. Based on that information, we can create strategies that help to change the collective safety culture, a critical step in getting to zero traffic deaths and serious injuries. (Figure 49).

IT IS UNACCEPTABLE FOR ANYONE TO BE KILLED OR SERIOUSLY INJURED WHILE TRAVELING ON BELLEVUE STREETS

STRONGLY DISAGREE ● 0 ● 1 ● 2 ● 3 ● 4 ● 5 ● 6 ● 7 ● 8 ● 9 ● 10 STRONGLY AGREE

Community Questionnaire (N=1515)



Staff Questionnaire (N=230)



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Figure 49: Bellevue recognizes that we will be neither effective nor authentic in our Safe Systems approach to grow traffic safety culture if our own agency's culture is not fully committed to Vision Zero. When asked whether it is unacceptable for anyone to be killed or seriously injured while traveling on Bellevue streets, community respondents indicated greater agreement than City employees. In addition to 15% more respondents indicating they "strongly agree," 8% more community respondents selected a "6" or higher compared to employee respondents. More information about the questionnaire is available in the [community results](#) and [staff results](#).

How We Talk About Traffic Safety

As a starting point, culture-based strategies recognize that #WordsMatter. Word choices have a significant influence on our understanding of what is happening in our communities and how we can make change (Figure 51). Often, the language used in popular discourse, in media coverage, and even in official reports describes an individual crash as if it happens in isolation, without cause, rather than acknowledging the systemic issues, people and actions that caused the crash. This limited perspective implicitly obscures responsibility, may inadvertently blame the victim, and prevents communities from recognizing and addressing the contributing issues.

A prime example of how language matters is the word “accident.” It implies that an event happens by chance, without an apparent cause. Culture-based strategies discourage use of the word “accident,” replacing it with “crash” or “collision” to more appropriately describe a preventable incident that involves choices and behaviors (Figure 51). Fostering a safety culture involves challenging and changing individual and organizational perspectives and practices from an acceptance of traffic deaths as inevitable to feeling an imperative to prevent them. For example, a crash might be prevented by making street improvements or through education to change the attitude of drivers who think it’s acceptable to exceed the speed limit.

Changing perceptions is a complex challenge because there are many sources of social influence, from local ones, such as family, workplace, or community, to broader influences at the state or national level. For example, seat belts have been around since the 19th century but few people used them until after states began to pass primary enforcement laws in 1984 (see [National Public Radio](#)). Seat belt use rates in the United States have been rising steadily, from 14 percent in 1983, to 90 percent in 2019 (see [NHTSA Seat Belts](#)). This shift in behavior is largely attributable to high-visibility seat belt law enforcement and publicity available research on their effectiveness. (see [Insurance Institute for Highway Safety Seat Belts](#)).

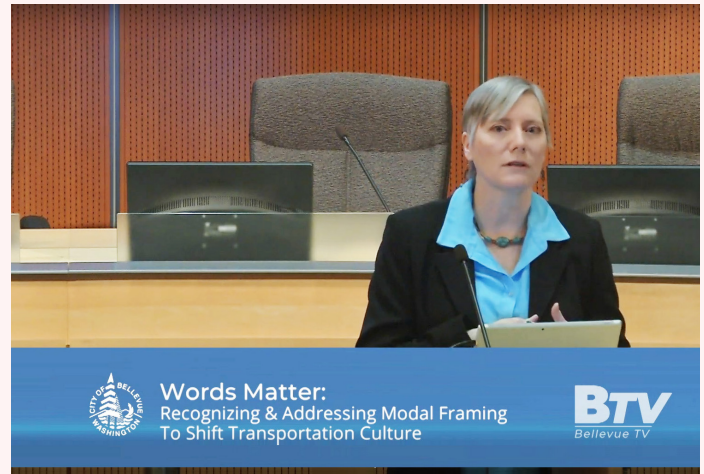


Figure 50: Barb Chamberlain (WSDOT Active Transportation Division Director) sharing her insights with Bellevue staff on how to shift transportation culture through language. [Presentation](#) and [video recording](#).

CRASH
~~ACCIDENT~~

A screenshot of a news article from the City of Bellevue, WA Transportation department. The article title is "Driver making left turn hits, kills cyclist". The text of the article reads: "A driver collided with a man riding a bicycle just before 4 p.m. Sunday at the intersection of Northeast Eighth Street and Northrup Way. The 63-year old cyclist, a Newcastle man, died from his injuries shortly after arriving at the hospital. Collision investigators say the 44-year-old driver turned left from Northrup Way onto Eighth in front of the cyclist. The investigation is ongoing. With the beginning of spring and warmer weather, drivers should expect to see more people riding bicycles and walking. All, please remember to".

Figure 51: Responding to calls from traffic safety advocates, the Associated Press Stylebook issued updated guidance to reporters advising the use of “crash” or “collision” because “accident... can be read as a term exonerating the person responsible.” The City has adopted this guidance and other changes to official communications about crashes.

Sharing a Traffic Safety Culture Locally and Nationally

The Safe Systems approach acknowledges that zero deaths and serious injuries is an ambitious goal. Indeed, many people currently do not believe it is possible (Figure 52). However, strong leadership and a coordinated effort that brings together people with the same goal can achieve more than individual organizations working independently. For their part, federal and state agencies have signaled that they are committed to working with local agencies in support of safety culture (Figure 53):

- “Safety is the top priority of the US DOT... FHWA continues to work closely with our partners to advance **safety culture** and a safe system approach, encourage performance-driven transportation safety management practices, and advocate for the deployment of innovative safety countermeasures.” (see [FHWA Commitment](#))
- “Led by the Towards Zero Death Steering Committee, the National Strategy on Highway Safety provides a platform of consistency for state agencies, private industry, national organizations and others to develop safety plans that prioritize **traffic safety culture** and promote the national TZD vision.” (see [Toward Zero Deaths National Strategy](#))
- “The Coalition ... identified three main initiatives to reduce roadway fatalities: Double down on what works through proven, evidence-based strategies. Advance life-saving technology in vehicles and infrastructure. Prioritize safety by adopting a safe systems approach and creating a **positive safety culture**.” (see [National Safety Council Road to Zero Coalition](#))
- “This leadership has allowed a **strong traffic safety culture** to flourish. For example, a 2018 survey of Washingtonians showed that most adults (81%) are concerned about safety on roadways. And most (74%) agree that the only acceptable number of deaths and serious injuries on our roadway should be zero. The overall support voiced by the public for strong traffic safety policies and programs is significant.” (see [Washington State Target Zero Plan](#)).

DEATHS AND SERIOUS INJURIES WHILE TRAVELING ON BELLEVUE STREETS ARE PREVENTABLE

STRONGLY DISAGREE ● 0 ● 1 ● 2 ● 3 ● 4 ● 5 ● 6 ● 7 ● 8 ● 9 ● 10 STRONGLY AGREE

Community Questionnaire (N=1523)



Staff Questionnaire (N=229)



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Figure 52: When asked whether it is feasible to prevent deaths and serious injuries while traveling on Bellevue streets, approximately 15% of employees (compared to less than 5% of community respondents) selected a “3” or below, thus illuminating a staff perception that deaths and serious injuries are inevitable consequences of our transportation system. More information about the questionnaire is available in the [community results](#) and [staff results](#).



Figure 53: Some of the presenters and attendees of the City's inaugural Vision Zero Summit in February 2019. From left-to-right and top-to-bottom: Tom DeBord (OMC), Roger Millar (WSDOT), Greg Fredericksen (NHTSA), Grantley Martelly (KCM), Mayor Lynne Robinson, David Braunstein and Noah Budnick (TSR), Thomas Orr (NORCOM), Councilmember Conrad Lee, Vijitha Chekuri (Microsoft), Randy McCourt (ITE), Councilmember Janice Zahn, Yinhai Wang (PACTRANS), Beth Ebel (HIPRC), Jay Cabezuela (WSP), Darrin Grondel (WTSC).

Goal and Strategies



Develop a shared language and understanding about traffic crashes, which begins by acknowledging that zero is the only acceptable number of deaths and serious injuries on our streets, that crashes are preventable incidents, and that we all have a role in achieving this goal.

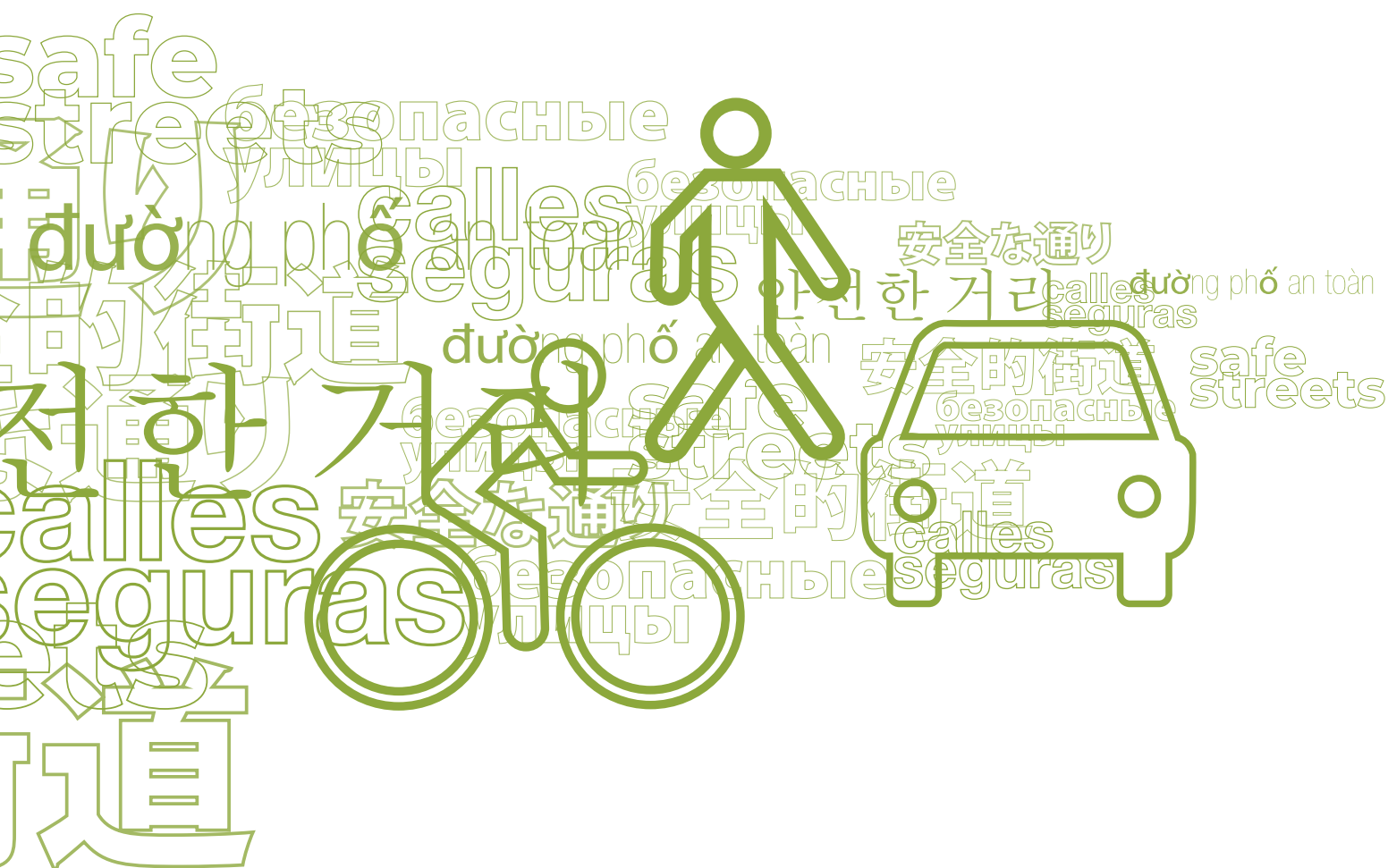
1. Encourage city staff to fully embrace the goal of striving for zero fatalities and serious injuries by 2030.
2. Prioritize safety improvements on roadways for all people in historically underserved communities.
3. Ensure enforcement, outreach, and education are equitable across the city's diverse populations.
4. Systematically reach out to the community to build a culture of safety.



STOP

211006

FOR OFFICIAL USE ONLY



< The Bellevue School District has deployed video to monitor driver compliance with school bus stop sign paddles.

Working Together Toward One Goal

Bellevue has a long history of cultivating transportation safety partnerships with the general public, other public agencies, non-profit organizations, and the private sector (Figure 54). These collaborations often include the coordinated use of education and outreach, enforcement, and engineering. For example, recent partnerships with the Bellevue School District include:

- Supporting a peer-to-peer education campaign coordinated by students affiliated with the Washington DECA organization (see [TINO Campaign](#));
- Enforcement program implemented by the Bellevue School District that issues citations to drivers who do not stop as required when a school bus stop sign paddle is displayed (see [Student Safety Stop Paddle Camera Program](#));
- Encouragement campaign implemented by the Bellevue Fire Department that includes distracted driving drills at high schools (see [Crash Reenactment Program](#));
- Encouragement campaign for families and students to explore sustainable transportation options for their commute to and from the school. Partners include the Bellevue School District, Bellevue Downtown Association's transportation arm, city of Bellevue, King County and TransManage (see [Bellevue SchoolPool](#));
- Traffic calming and pedestrian sidewalk projects implemented near schools by the Bellevue Transportation Department (see [Neighborhood Safety, Connectivity and Congestion Levy](#)).

Leveraging Expertise

Partnerships in support of a Safe Systems approach take various forms (see [Bellevue's Vision Zero Partnerships webpage](#)). Many recent partnerships have involved enhancing data-driven analysis. For example, recent partnerships include:

- Collaboration with the United States Department of Transportation and Volpe Center, (see [case study](#) and [WIRED Magazine](#)). Bellevue Transportation Department staff leveraged new Waze reported incident data streams to identify problem locations and specific treatments to provide the maximum safety benefit for all roadway users (Figure 55).
- Collaboration with Transoft Solutions and the Together for Safer Roads coalition on a citywide traffic conflict screening using the city's existing traffic camera network and video analytics based on deep neural networks and cloud computing (see executive summary). Data collected from more than 5,000 hours of video footage were used to derive insights on intersections with recurring instances where road users routinely speed, violate traffic lights, and come into close contact with another road user (Figure 56). These early warning safety indicators provide predictive insight into when and where future crashes might occur (Figure 57).

Successful collaborations stem from bringing the right group of partners together to identify problems, develop potential strategies, and implement the most effective set of actions.

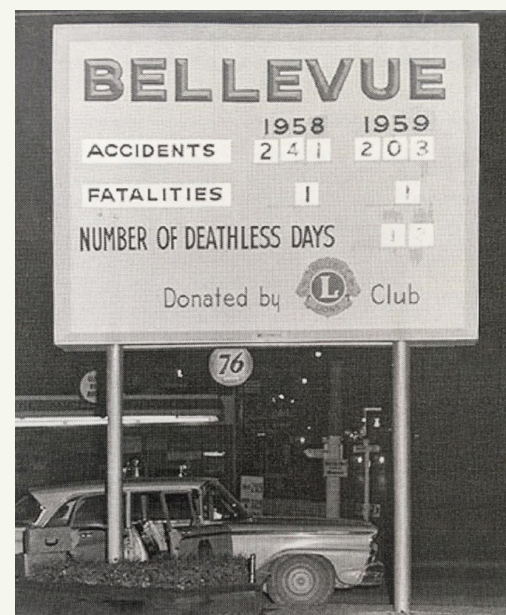


Figure 54: Traffic safety campaign in the 1950s developed in partnership with the Greater Bellevue Lions Club.

Waze Accidents, Bellevue Crash Reports, and NORCOM Crash Reports

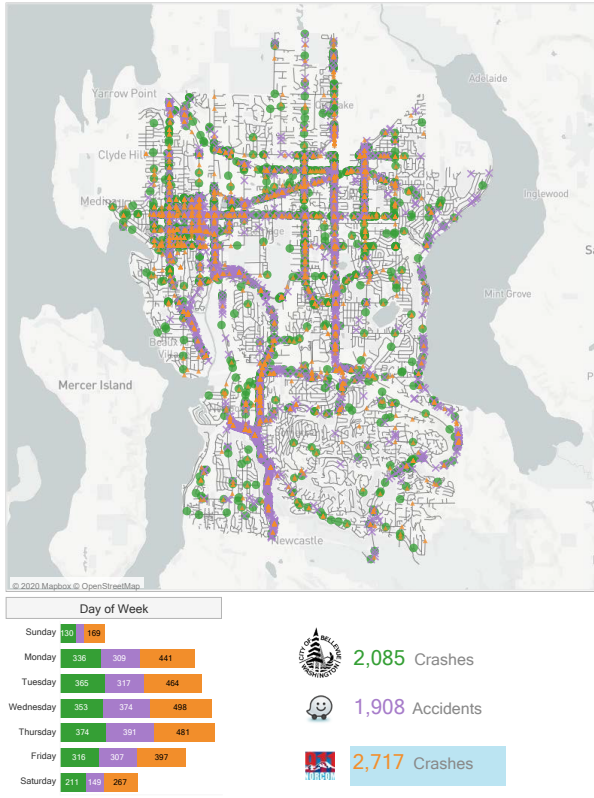


Figure 55: Interactive dashboard integrating traffic crash data from Bellevue police-reports, Waze and 911 calls.

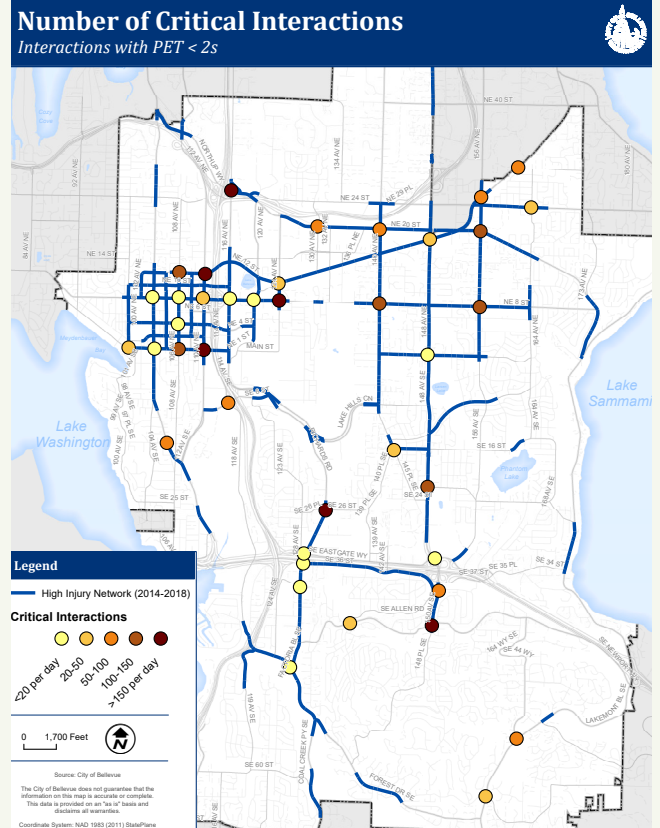


Figure 56: The video analytics partnership with Transoft Solutions and Together for Safer Roads documented 8.25 million road users and 20,000 critical conflict interactions during one week of data collection at 40 study intersections.

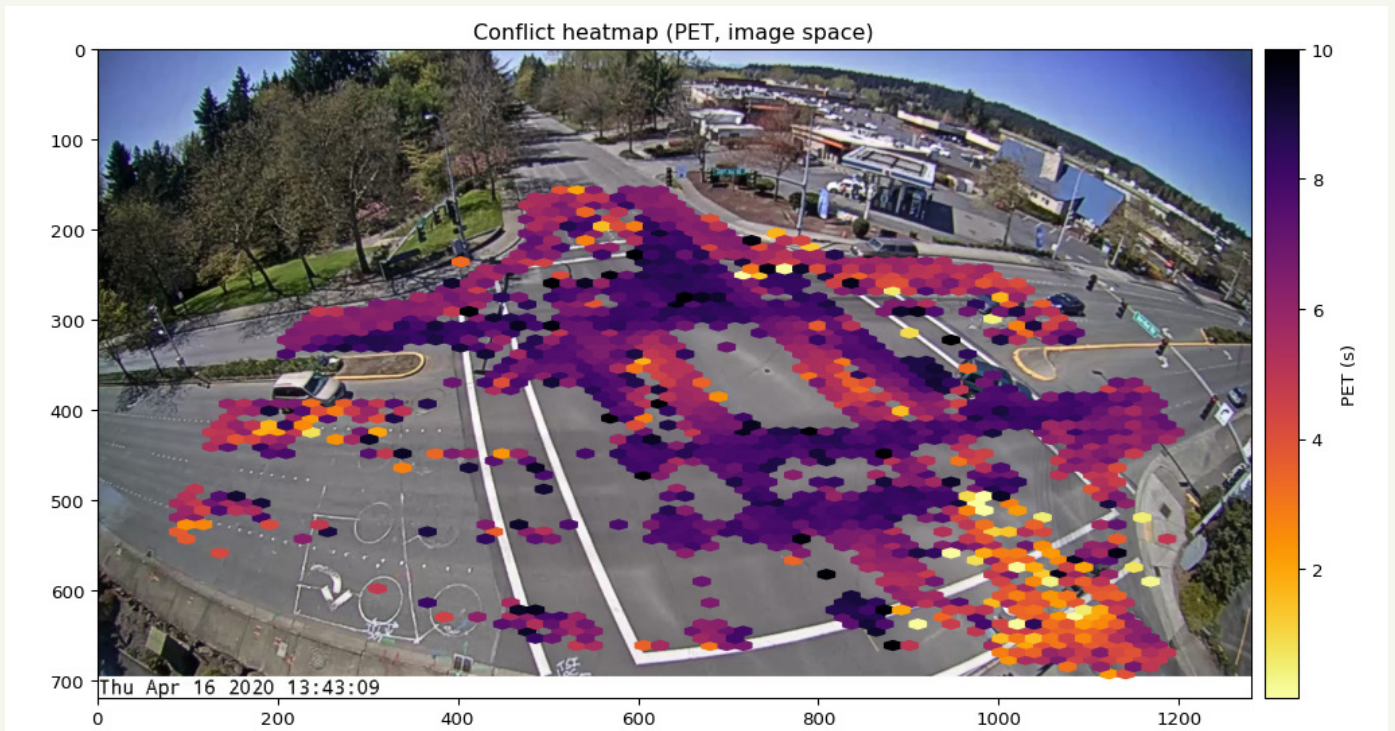


Figure 57: A conflict heatmap indicates the frequency of more critical conflicts at specific locations within the intersection of Bel-Red Road and 148th Avenue NE.

Goal and Strategies



Promote “One City” collaboration and partnerships between the City of Bellevue and the broader Vision Zero community to achieve optimal outcomes.

1. Work with partner safety agencies to develop a more complete crash database.
2. Revise/standardize crash reporting data for consistent results across all modes.
3. Continually identify new transportation safety partners.



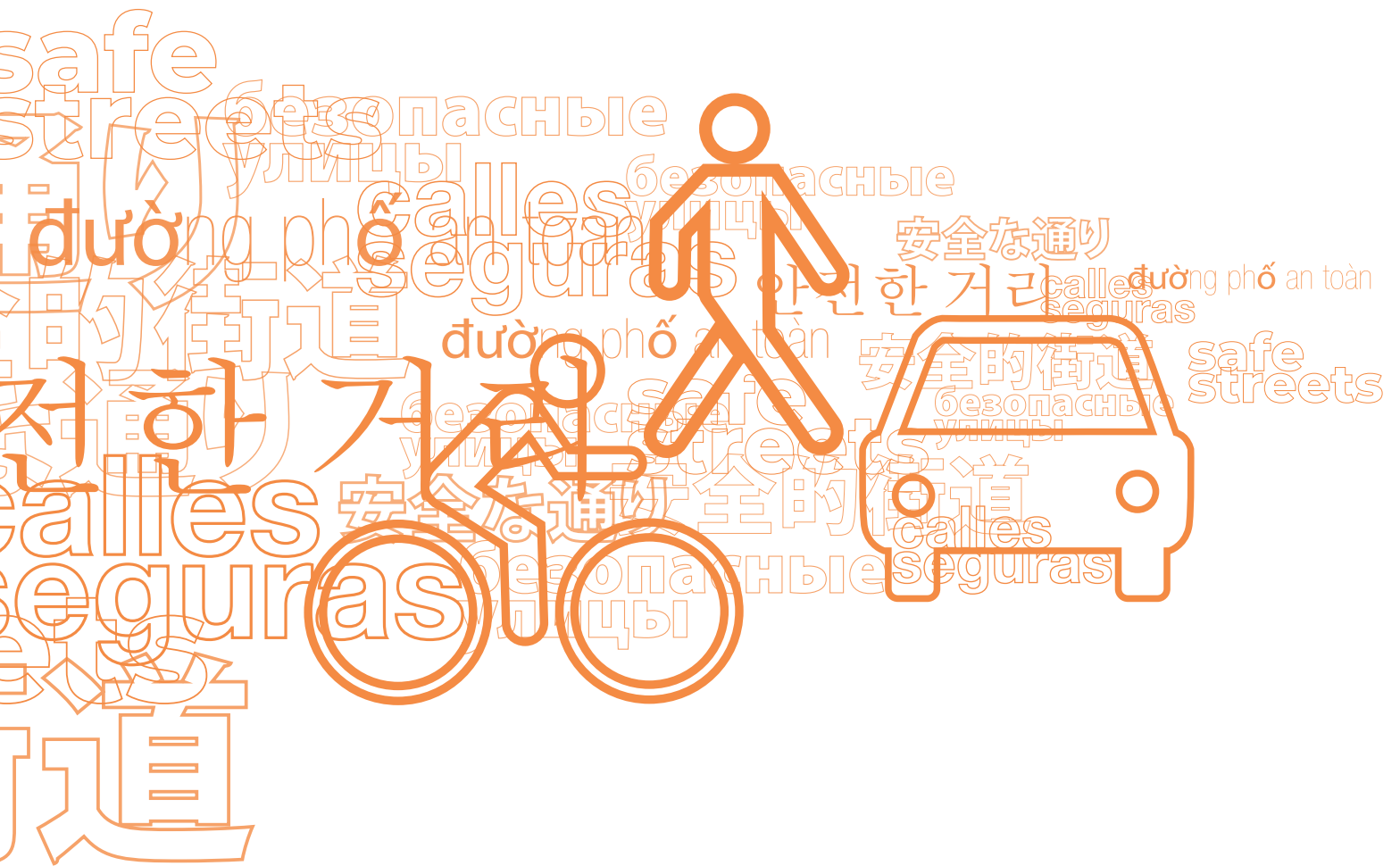




Figure 58: Bellevue Police officers investigating fatal crash where speeding and alcohol/drugs were contributing factors.

Police Crash Records

Data is integral to road safety decision making: identifying problem areas, selecting appropriate safety countermeasures, and monitoring countermeasure impact. Crash records are currently viewed as the most objective and reliable measure of road safety. They provide details about events leading to the crash, the people and vehicles involved, and the consequences of crashes—such as fatalities, injuries, property damage, and citations (Figure 58). When aggregated, crash data can help:

- Pinpoint frequent crash locations;
- Identify contributing crash factors related to roadway environment and design;
- Determine trends, including increases or decreases in certain types of crashes over time, and impacts due to street improvements or regulatory changes;
- Identify high risk users, such as younger drivers, older drivers, and impaired drivers.

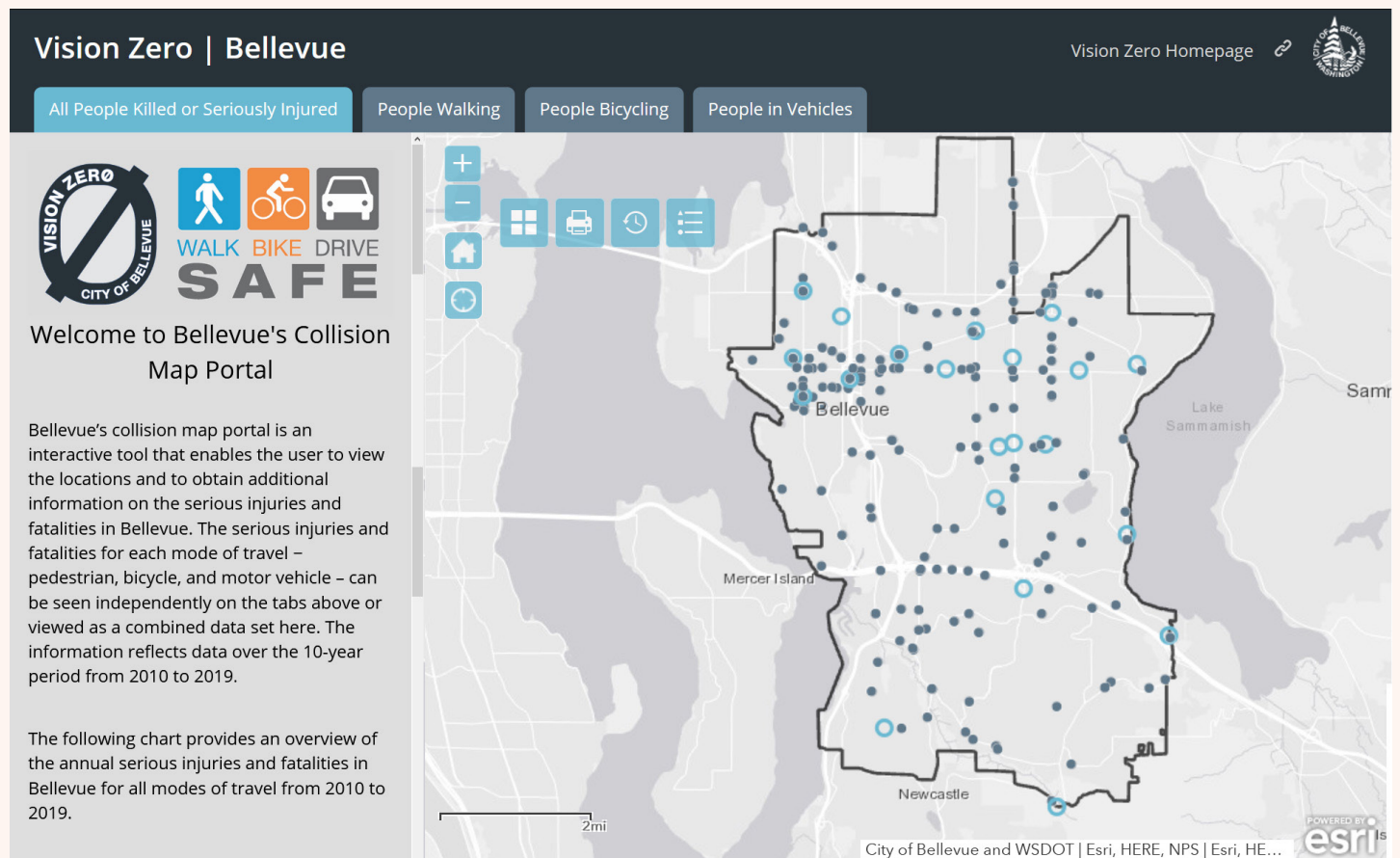


Figure 59: Bellevue's collision portal provides transparency of Vision Zero reporting on where, when, and what types of crashes occur on the city's streets over a 10-year period (see [map](#)).

Bellevue has developed both public-facing and internal crash mapping systems that allow for interactive evaluation of crashes on city streets (Figure 59). Regularly analyzing and reporting transportation safety data and using it to help determine investments and priorities is an important element of the Safe Systems approach. Bellevue also recognizes that a reliance on crash data alone does not provide a complete picture of safety risks and has well-documented limitations:

- At most locations, especially in a community the size of Bellevue, the number of crashes is small and subject to chance variations;
- Not all crashes are reported, and the level of reporting is uneven with respect to the type of road users involved, exact location, severity of injuries, and contributing factors (see [National Safety Council How Incomplete Crash Reports Impact Efforts to Save Lives](#));
- Many years of crash data are typically required to understand the situation; and
- Using crash data by itself only allows for a “reactive” approach, identifying locations where crashes have already happened.

Beyond Crash Data

Bellevue is looking beyond crash records for its data-driven safety analysis. In the pursuit of systemic safety strategies, we are incorporating alternate data sources such as roadway characteristics, community input, and staff knowledge. A systemic approach can proactively identify locations that have a high risk of crashes but where the risk has not yet resulted in actual crashes (see [FHWA Systemic Approach to Safety](#)).

By combining crash data with other types of data, more details begin to emerge (Figure 60). For example, by supplementing crash data with conflict analytics, staff can develop a more in-depth understanding of road user interactions that contribute to crash risk. These “surrogate” warning indicators (observable, non-crash traffic conflict events) provide insight into when, where, and why crashes are most likely to occur. Understanding the root causes of conflict events allows staff to take proactive measures to reduce the potential for future crashes—before they occur (Figure 61).



Figure 60: A comment shared via Twitter that frequent conflicts were observed at 108th Avenue NE and Main Street before this crash occurred.

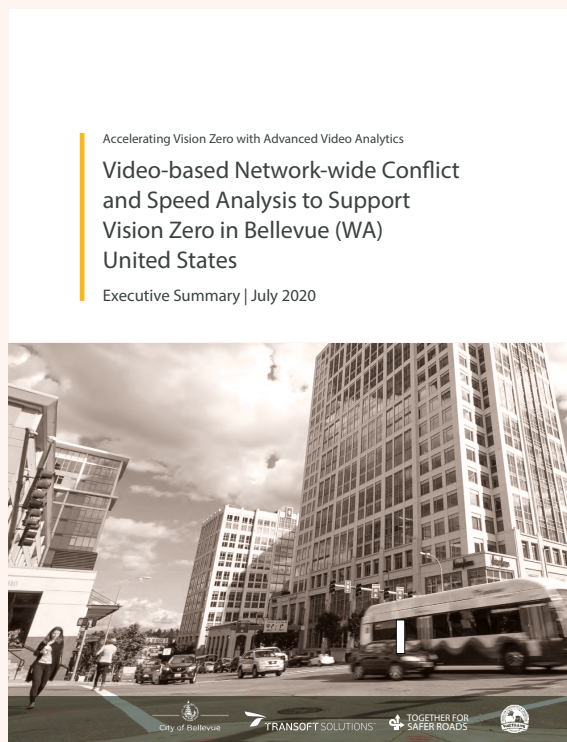


Figure 61: The City of Bellevue, in partnership with Transoft Solutions and Together for Safer Roads completed a network-wide, conflict analysis that evaluated traffic volumes, speeds, and conflict type and severity using video analytics (see [executive summary](#); [conflict analysis report](#); [speeding analysis report](#); [crash correlation report](#))

Goal and Strategies



Collect and analyze data to understand the factors that impact the safety of our transportation system and leverage this insight to identify improvements and evaluate outcomes.

1. The performance and implementation of all safety actions are routinely evaluated, made public, and shared with decision-makers to inform priorities, budgets, and updates to the Vision Zero Action Plan.
2. Collect and analyze crash data to inform evidence-based strategies and interventions.
3. Apply a proactive, systems-based approach to identify and address top crash factors and mitigate potential crashes and crash severity.





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The Strategic Plan was approved by Brad Miyake (*City Manager*) at the recommendation of the Vision Zero Steering Team: Nathan McCommon (*City Manager's Office*), Steve Mylett (*Police*), Jerome Hagen (*Fire*), Mac Cummins (*Community Development*), Mike Brennan (*Development Services*), Andrew Singelakis (*Transportation*), Joy St. Germain (*Human Resources*), Kathy Gerla (*City Attorney*) and Sabra Schneider (*Information Technology*).

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Renata Homolya.

Special thanks to Sweden and Denmark, the National Association of City Transportation Officials (NACTO), and the Vision Zero Network as their efforts helped inspire and guide Bellevue's program.

The Strategic Plan is dedicated to those who have lost their lives in a traffic crash, those who have been seriously injured, and to their families and friends. Their loss inspires us to do all we can to eliminate traffic deaths and serious injuries and provide safe streets for all.



240 BELLEVUE TC

STOP

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Appendix A

SAFE SYSTEMS RESOLUTION

CITY OF BELLEVUE, WASHINGTON

RESOLUTION NO. 9769

A RESOLUTION approving the Safe Systems approach and strategies to move Bellevue towards Vision Zero and directing the Transportation Commission to review the Comprehensive Plan to determine if any updates, revisions, or additional policies are warranted to support the Safe Systems approach.

WHEREAS, the worldwide Vision Zero movement is founded on the belief that death and injury on city streets is unacceptable and preventable; and

WHEREAS, on December 7, 2015, the City Council adopted Resolution No. 9035 endorsing Vision Zero, for the city of Bellevue to strive to achieve zero traffic deaths and serious injuries on Bellevue streets by 2030; and

WHEREAS, the City Council directed the Transportation Commission to review the City's Comprehensive Plan to determine if any updates, revisions, or additional policies were warranted in light of Vision Zero and other transportation network goals; and

WHEREAS, on December 8, 2016, the City Council adopted Ordinance No. 6334 incorporating Vision Zero 2016 amendments to the Comprehensive Plan; and

WHEREAS, in addition the City Council directed staff to: (i) prepare and implement a Vision Zero Action Plan; (ii) update Vision Zero strategies periodically; and (iii) provide Vision Zero status reports that aggregate and analyze data, document efforts, and communicate progress to the City Council and to the community; and

WHEREAS, Bellevue Comprehensive Plan Policy TR-61.2 provides direction to "Develop a programmatic approach to Vision Zero that integrates components of Education, Encouragement, Enforcement, Engineering, Equity and Evaluation"; and

WHEREAS, consistent with this policy and the direction from the City Council, the Transportation Commission considered Bellevue crash data, vetted existing road safety efforts in Bellevue and international Vision Zero best practices, listened to the community, and worked with staff to arrive at a recommended Safe Systems approach and strategies to move Bellevue towards Vision Zero (Attachment A); and

WHEREAS, the Safe Systems approach and strategies rests on four pillars (Safe Speeds, Safe People, Safe Vehicles, and Safe Streets) paired with four supportive elements (Data, Leadership, Partnerships, and Culture) and identifies 36 strategies that build upon the City Council's Vision Zero goal by articulating the

programmatic steps staff should pursue in identifying specific actions to eliminate traffic fatalities and serious injuries in Bellevue by 2030; and

WHEREAS, staff will finalize a Vision Zero Action Plan that contains specific actions consistent with the Safe Systems approach and will share the final report with the community through the Transportation Commission; and

WHEREAS, to support the Safe Systems approach, review of the Comprehensive Plan is necessary to determine if any updates, revisions, or additional policies are warranted; now therefore,

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The City of Bellevue Safe Systems approach and strategies to move Bellevue towards Vision Zero is hereby adopted. A copy of the Safe Systems approach is attached hereto as Attachment A.

Section 2. The City Council directs the Transportation Commission to review the existing Comprehensive Plan to determine if any updates, revisions, or additional policies are warranted to support the Safe Systems approach and strategies to move Bellevue towards Vision Zero. The Transportation Commission will report its findings and recommendations to the City Council for its consideration in determining whether to initiate any Comprehensive Plan Amendments.

Passed by the City Council this 15th day of JUNE, 2020, and signed in authentication of its passage this 15th day of JUNE, 2020.

(SEAL)



Lynne Robinson, Mayor

Attest:

Charmaine Arredondo, City Clerk

ATTACHMENT A



Engage and educate people to take personal responsibility in Vision Zero by encouraging them to use the transportation system as intended and utilize all safety features in their mode of travel.

Safe People | Strategies

1. Launch citywide campaigns to build awareness around safety and Vision Zero.
2. Improve motorist training on safety and rules of the road.
3. Educate pedestrians, bicyclists, and scooter riders on safety and rules of the road.
4. Educate children and students on safety and rules of the road.
5. Foster and promote safety champions in the community.
6. Use data to inform coordinated actions across city departments to influence public commitment to Vision Zero.



Improve safety by significantly reducing the likelihood of crashes and minimizing the consequences of actual crashes.

Safe Streets | Strategies

1. Implement projects citywide that make it safer to walk, bike, and take transit (and where relevant to make it more comfortable and accessible).
2. Implement projects citywide to make it safer to drive.
3. Create public spaces that are safe and attractive for people walking and bicycling.
4. Establish clear priorities for curb usage.



Implement, educate about, and enforce speeds that reduce the risk of bodily harm for people inside and outside of vehicles.

Safe Speeds | Strategies

1. Design or redesign roads and intersections to manage speeds as appropriate for the intended use.
2. Assess and evaluate speed limits citywide and create a speed management program to address speeding concerns based on applicable data.
3. Educate people on the link between speed and safety, and, in the process, change drivers' risk perceptions of enforcement actions or causing a crash.
4. Create and promote neighborhood-based programs that aim to lower traffic speeds.
5. Use and expand automated speed enforcement (ASE).
6. Employ High Visibility Enforcement actions to increase compliance of safe speeds.



Implement and influence improvements to vehicle design and technology to reduce risk of injury to people inside and outside the vehicles.

Safe Vehicles | Strategies

1. Improve safety of private vehicles operated on our roads.
2. Improve safety of public vehicles on our roads.
3. Improve safety of shared mobility.
4. Leverage new technologies for safety data collection.
5. Create a safe environment for autonomous vehicle (AV) testing and implementation.
6. Implement safety enforcement technologies on public vehicles.



Commit all levels of the city to keep learning, refining our skills, and expanding our toolbox with the best available strategies, policies, and actions.

Leadership | Strategies

1. The Mayor, elected officials, and department leaders commit to collaborating to strive for zero traffic fatalities and serious injuries within a specific timeframe.
2. Employ meaningful and accessible community engagement toward Vision Zero with a focus on equity.
3. The Vision Zero Action Plan guides work and includes clear goals, measurable strategies, comprehensive data collection, timelines, and responsible stakeholders.
4. Decision-makers and system designers advance projects and policies that keep safety as a key priority.



Develop a shared language and understanding about traffic crashes, which begins by acknowledging that zero is the only acceptable number of deaths and serious injuries on our streets, that crashes are preventable incidents, and that we all have a role in achieving this goal.

Culture | Strategies

1. Encourage city staff to fully embrace the goal of striving for zero fatalities and serious injuries by 2030.
2. Prioritize safety improvements on roadways for all people in historically underserved communities.
3. Ensure enforcement, outreach, and education are equitable across the city's diverse populations.
4. Systematically reach out to the community to build a culture of safety.



Promote “One City” collaboration and partnerships between the City of Bellevue and the broader Vision Zero community to achieve optimal outcomes.

Partnerships | Strategies

1. Work with partner safety agencies to develop a more complete crash database.
2. Revise/standardize crash reporting data for consistent results across all modes.
3. Continually identify new transportation safety partners.



Collect and analyze data to understand the factors that impact the safety of our transportation system and leverage this insight to identify improvements and evaluate outcomes.

Data | Strategies

1. The performance and implementation of all safety actions are routinely evaluated, made public, and shared with decision-makers to inform priorities, budgets, and updates to the Vision Zero Action Plan.
2. Collect and analyze crash data to inform evidence-based strategies and interventions.
3. Apply a proactive, systems-based approach to identify and address top crash factors and mitigate potential crashes and crash severity.



Appendix B

TRAFFIC COLLISION DATA

< A damaged bicycle lays in the road after the person riding was struck and seriously injured by a person driving on SE Newport Way and 129th Place Southeast in the Factoria area in 2018.

Traffic Collision Data

Traffic collision data used for this analysis are provided by Washington State Department of Transportation (WSDOT). As collision coding criteria differ between WSDOT and City of Bellevue (COB), collision numbers reported by each agency may exhibit slight variation. To address this issue, fatal and serious injury collisions in the WSDOT collision dataset are cross-referenced with the fatal and serious injury collisions in the COB collision dataset. The City of Bellevue is responsible for any data analyses and conclusions drawn from the WSDOT's data.

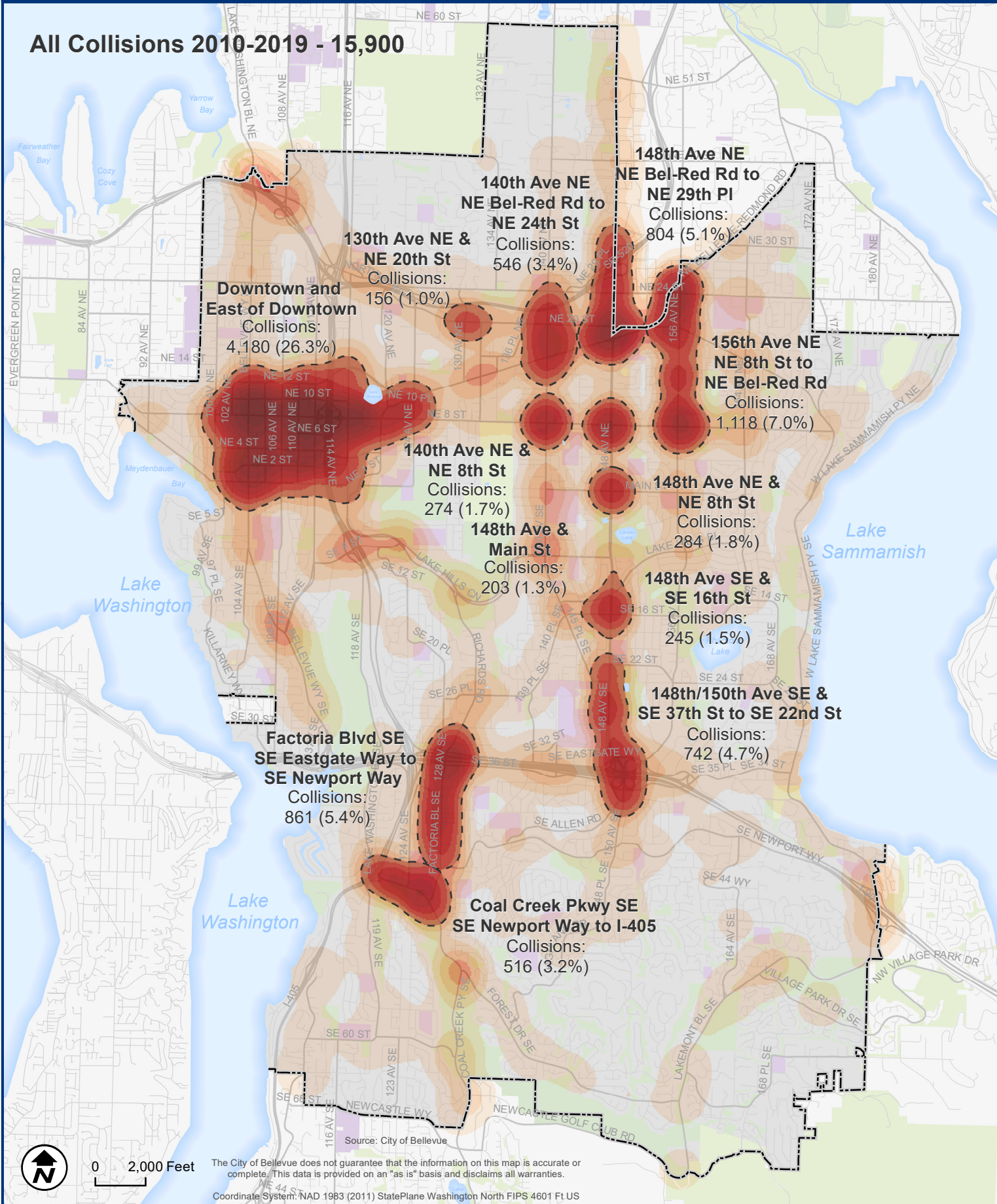
Bellevue's Vision Zero team used a 10-year analysis period, 2010-2019, unless otherwise noted. A longer study period was used to capture a holistic perspective and to capture a sufficiently large dataset of the serious injury and fatal collisions given that there are many contributing factors. For the purposes of all analyses and reported statistics in this plan, included are only collisions that occurred on city streets and the state portion of the streets either above or under highways. Collisions that occurred on highways and on highway ramps were excluded. The dataset is based on collision reports submitted by law enforcement officers and does not include collisions that occurred on private property. All analyses included in this plan are performed in GIS and Excel.

Heat Map All Collisions Bellevue

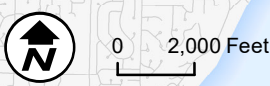
2010-2019



All Collisions 2010-2019 - 15,900



Source: City of Bellevue



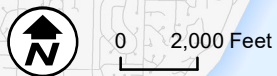
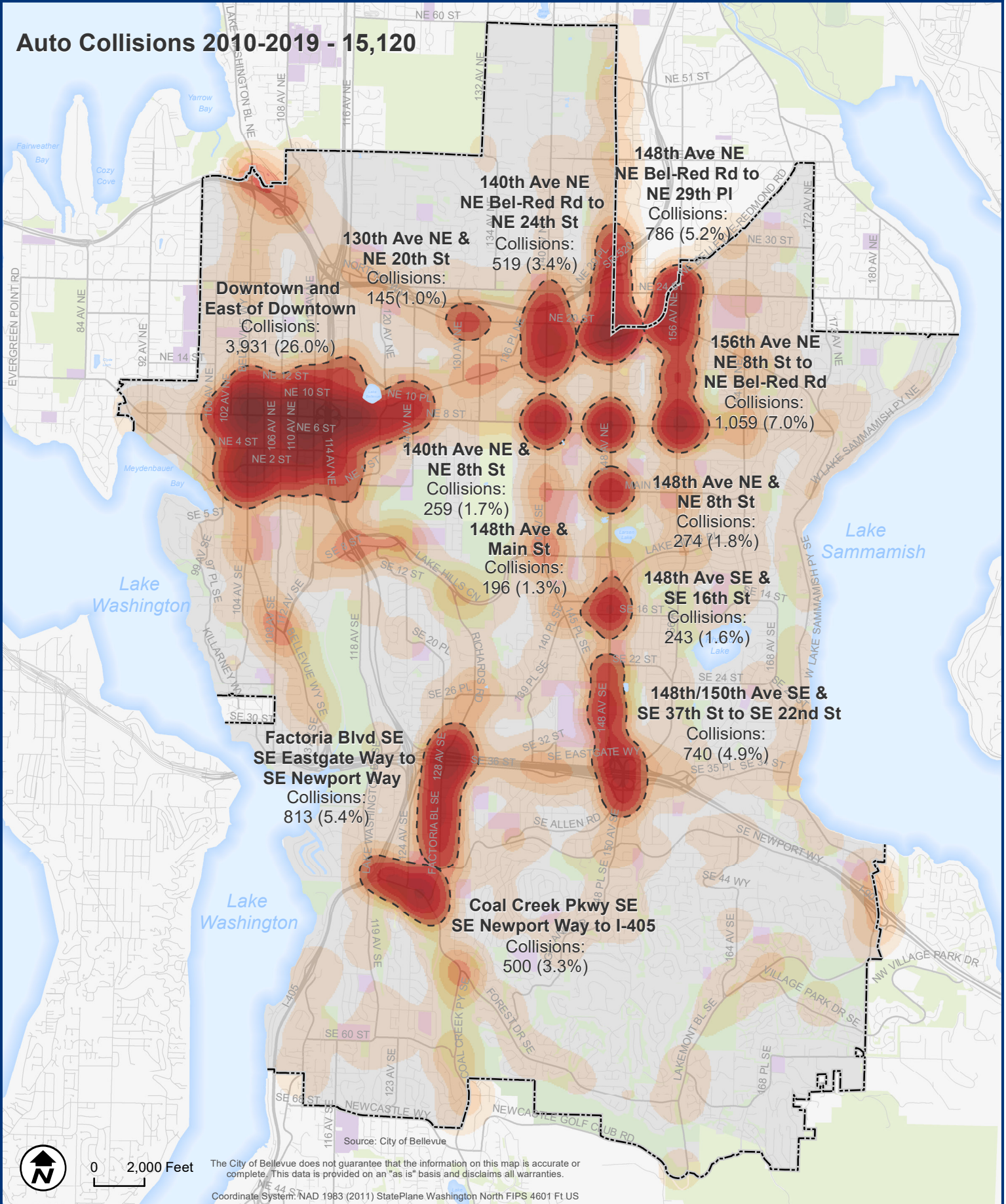
The City of Bellevue does not guarantee that the information on this map is accurate or complete. This data is provided on an "as is" basis and disclaims all warranties.
 Coordinate System: NAD 1983 (2011) StatePlane Washington North FIPS 4601 Ft US

Heat Map Auto Collisions Bellevue

2010-2019



Auto Collisions 2010-2019 - 15,120



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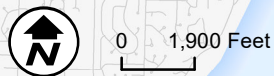
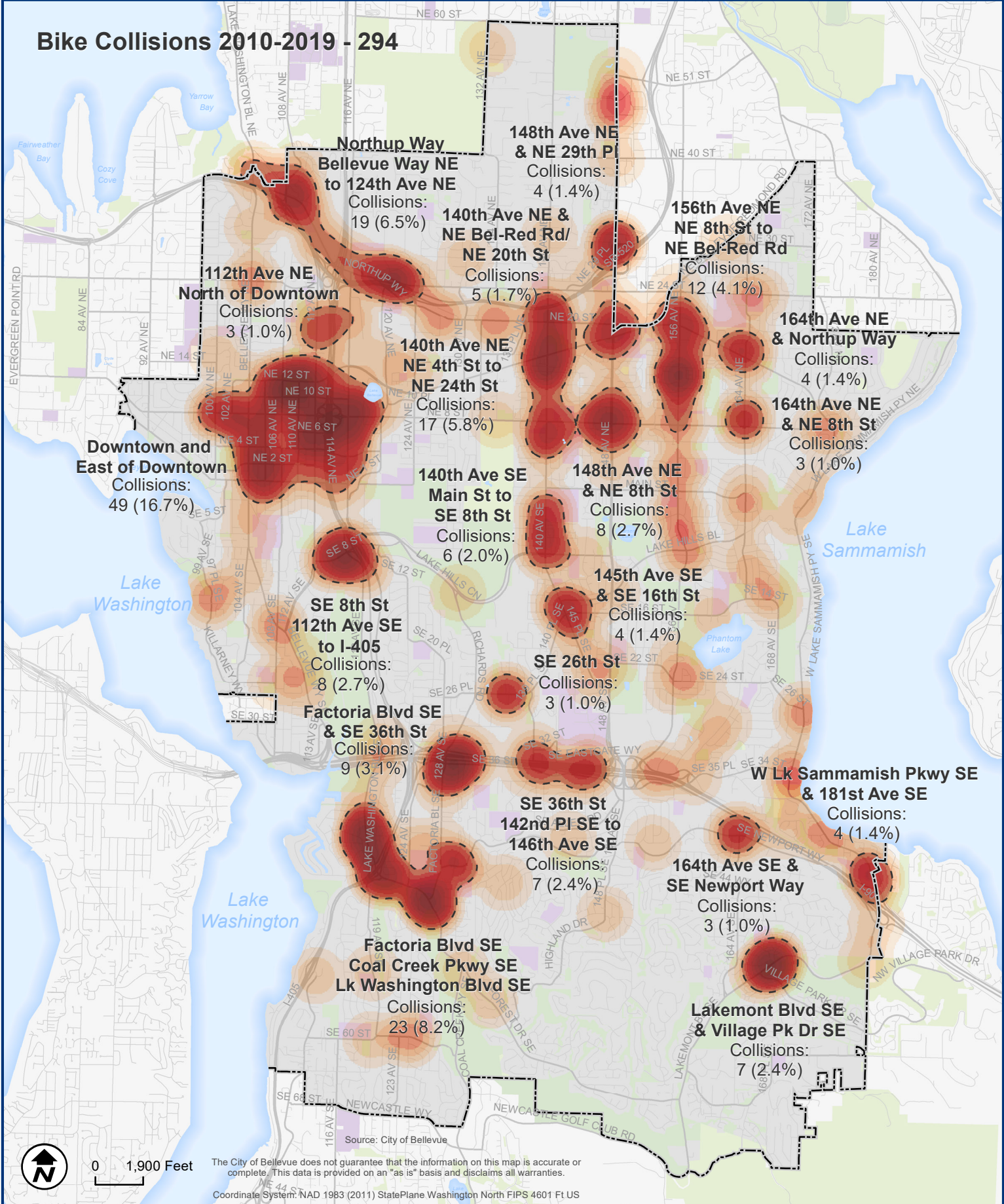
Coordinate System: NAD 1983 (2011) StatePlane Washington North FIPS 4601 Ft US

Heat Map Bike Collisions Bellevue

2010-2019



Bike Collisions 2010-2019 - 294



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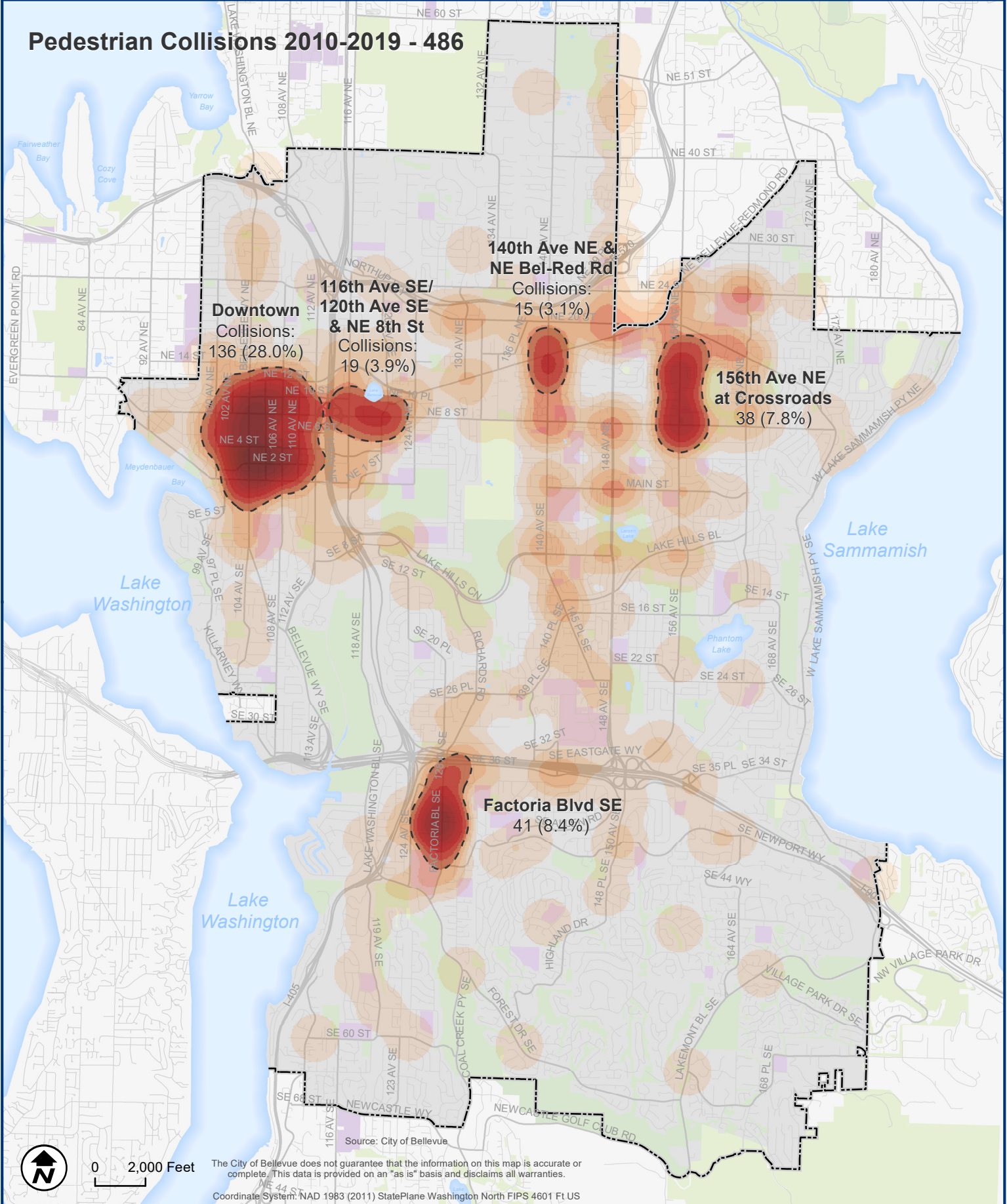
Coordinate System: NAD 1983 (2011) StatePlane Washington North FIPS 4601 Ft US

Heat Map Pedestrian Collisions Bellevue

2010-2019



Pedestrian Collisions 2010-2019 - 486



0 2,000 Feet

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Coordinate System: NAD 1983 (2011) StatePlane Washington North FIPS 4601 Ft US

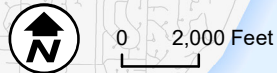
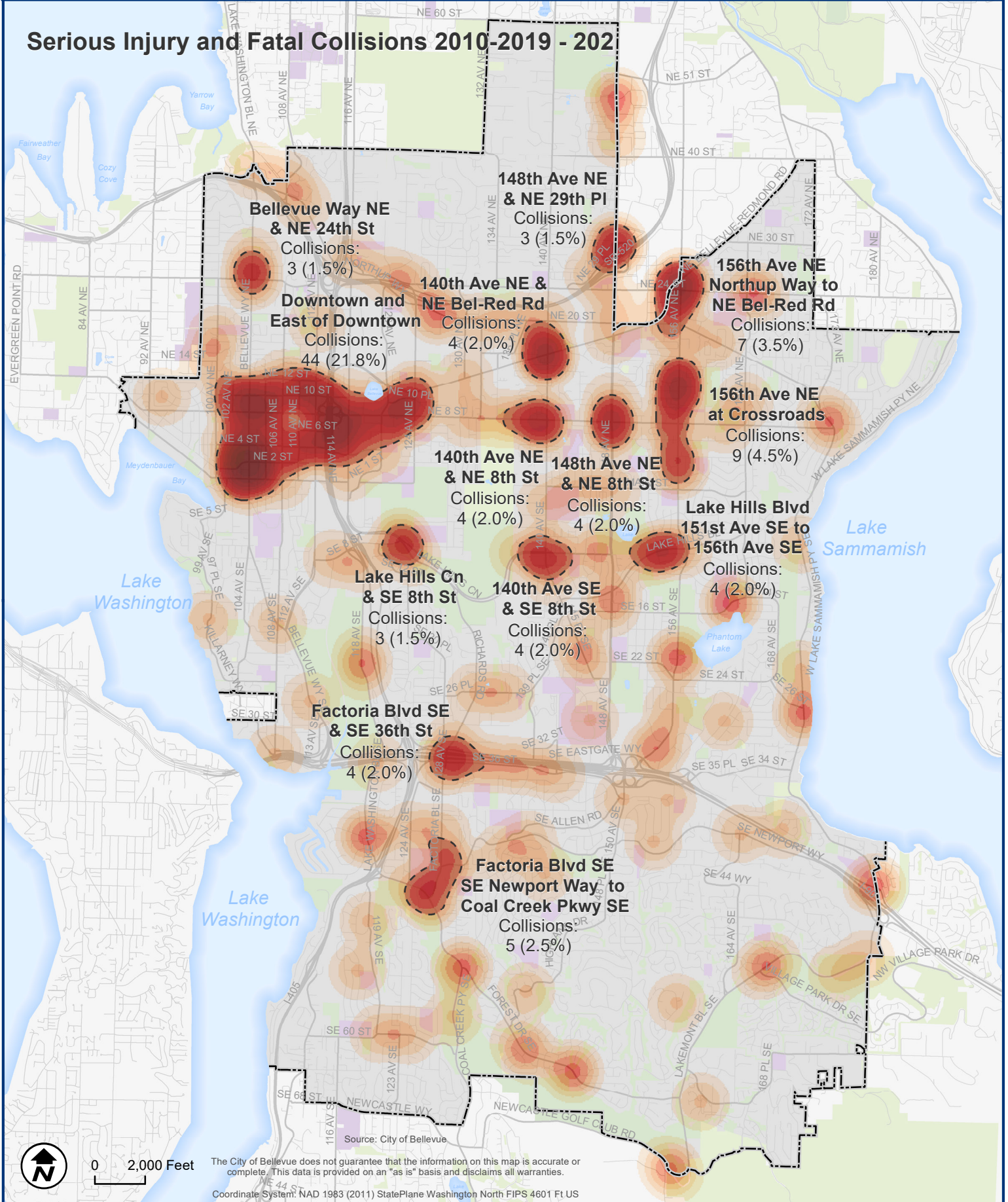
Source: City of Bellevue

Heat Map Serious Injury and Fatal Collisions Bellevue

2010-2019



Serious Injury and Fatal Collisions 2010-2019 - 2021



The City of Bellevue does not guarantee that the information on this map is accurate or complete. This data is provided on an "as is" basis and disclaims all warranties.

Coordinate System: NAD 1983 (2011) StatePlane Washington North FIPS 4601 Ft US



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安全街道
안전가도
safe street
安全的街