



# VISION ZERØ

SEATTLE'S PLAN TO END TRAFFIC DEATHS AND SERIOUS INJURIES BY 2030



City of Seattle



Seattle Department of Transportation



*We dedicate this plan to all those who have lost their lives in traffic, to those who have been seriously injured, and to their families and friends. We can, must, and will do more to make Seattle's streets safer for everyone.*

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# LETTER FROM MAYOR MURRAY



Dear friends,

Public safety is the foremost responsibility of city government. All Seattle residents deserve to be secure in their homes, safe in their neighborhoods, and able to explore our city without threat or intimidation. My vision for a safe Seattle extends to ensuring that people feel safe and comfortable traveling in our growing city, whether as a pedestrian, on a bike, or by car.

Seattle is a leader in traffic safety, and for the past decade, collisions on our streets have steadily declined. We were also recently named the safest city for pedestrians in the United States by Liberty Mutual Insurance. While this is wonderful news, there is still much more we can do to save lives, because even one death on our streets is unacceptable.

With this document and with many concrete and forward thinking actions to come, we are confirming our commitment to ending traffic deaths and serious injuries on our streets by 2030. This is our Vision Zero.

At the core of the worldwide Vision Zero movement is the belief that death and injury on city streets is unacceptable and preventable. Cities across the globe have set similar goals and are seeing serious reductions in crashes, deaths, and injuries.

Through smarter street design, targeted enforcement, and education, we will make our streets even safer for people of all ages and abilities, especially pedestrians and people on bikes, as they're the most vulnerable to death and injury on our streets. The loss of a friend, parent, or child is an excruciating experience that no one should have to endure. A Vision Zero mentality and this plan will help us save lives.

I look forward to working with you all, as we each have a part to play in making this vision a reality.

A handwritten signature in black ink that reads "Ed Murray". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Mayor Ed Murray

# LETTER FROM SPD CHIEF AND SDOT DIRECTOR



Dear fellow Seattleites,

Mayor Murray has laid out a vision for a safer Seattle, one that includes a goal of ending traffic deaths and serious injuries on our streets by 2030. Vision Zero is a city goal that can only be met if we work together.

Our departments play a key role in ensuring safe travel throughout the city. The way in which we design our streets, educate our road users, and enforce traffic laws can dramatically improve safety. Better and smarter street design, paired with targeted education and enforcement is proving effective in cities that have committed to similar goals. We can learn from these cities.

More than that, we can set new standards in safety through innovation in design, education, and enforcement. We're already well on our way as we've realized safety gains by installing protected bicycle lanes, school zone safety cameras, and pedestrian median islands and crossing improvements throughout the city.

We pledge to work together toward this aggressive, yet achievable goal. We also need your commitment, as fellow residents. Help us reach zero by following the rules of the road, no matter how you're traveling. Be predictable and look out for each other. And remember that the decisions you make on the road can have life altering effects on you and our community as whole.

Together, we'll make Seattle even safer.



Kathleen O'Toole  
Chief,  
Seattle Police Department

Scott Kubly  
Director,  
Seattle Department of  
Transportation

# A VISION FOR SAFER STREETS

Seattle is consistently recognized as one of the safest cities in the country. Over the past decade, we've seen a 30 percent decline in traffic fatalities, even as our population grows.

Despite this fact, traffic collisions are a leading cause of death for Seattle residents age 5-24. Older adults are also disproportionately affected, and as our population ages, this trend could grow. In 2013, there were 10,310 police-reported collisions in Seattle. 155 people were seriously injured and 23 were killed. This is unacceptable.

We can do better.

At the core of the worldwide Vision Zero movement is the belief that death and injury on city streets is preventable. For the most part, these aren't "accidents." Collisions are often the result of poor behaviors and unforgiving roadway designs. So we must approach the problem from multiple angles – street designs that emphasize safety, predictability, and the potential for human error, coupled with targeted education and data-driven enforcement.

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*Family and friends gather at a memorial walk honoring 68-year old Leo Almanzor, who was struck by a car and killed in a hit and run collision as he walked to work on November 22, 2014.*  
*Photo credit: Cathy Tuttle.*



## WHY NOW?

In Seattle, nearly 30 collisions occur on our streets every day.

People walking and biking are involved in collisions daily. Each year, more than 150 people sustain life-changing serious injuries and approximately 20 people die on our streets. People over age 50 are particularly vulnerable and have made up 70 percent of pedestrian fatalities in the last three years.

While Seattle is consistently recognized as a safe city, it's time to do more to prevent crashes.

Seattle considers safety for people walking and biking a top priority since the likelihood of injury is nearly 100 percent if they are hit. And it's important to note that safety projects benefit all travelers – people driving, biking, and walking. Through context sensitive engineering and thoughtful enforcement patrols, we will redesign our streets to reduce risk and improve conditions for everyone.

Vision Zero provides an opportunity to integrate our safety efforts by combining the street design recommendations of our Pedestrian, Bicycle, Transit, and Freight Master Plans with targeted enforcement patrols and educational outreach to address behavioral issues.

Now is the time to coordinate our safety efforts and commit to a goal of zero fatalities by 2030.

**30** CRASHES A DAY  
MORE THAN **10,000** A YEAR

NEARLY **35,000** TOTAL  
CRASHES IN THE LAST  
THREE YEARS

## — — VISION ZERO WILL SAVE LIVES — —

**150** PEOPLE SUSTAIN  
LIFE-CHANGING INJURIES  
EVERY YEAR

APPROXIMATELY **20**  
PEOPLE DIE ON OUR STREETS  
EACH YEAR

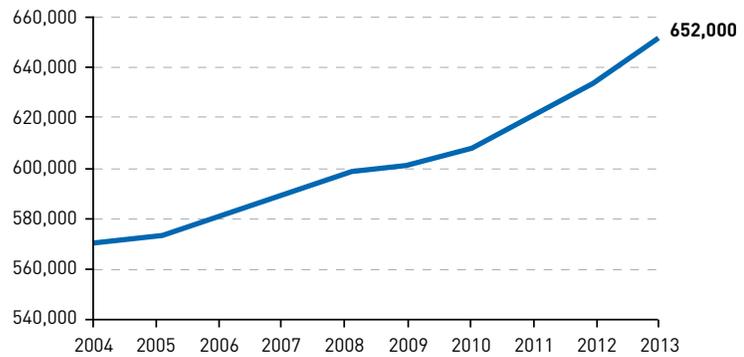
## THE TRENDS

Seattle is the fastest growing major city in the country. Even as population increases, collisions continue to decrease.

Fatalities and serious injuries are trending in the right direction, but still far too many lives are changed in traffic incidents.

Seattle is one of the safest cities in the US, with a traffic fatality rate rivaling Sweden's (the birthplace of Vision Zero). Still, we can do more to prevent death and injury on our streets.

SEATTLE POPULATION



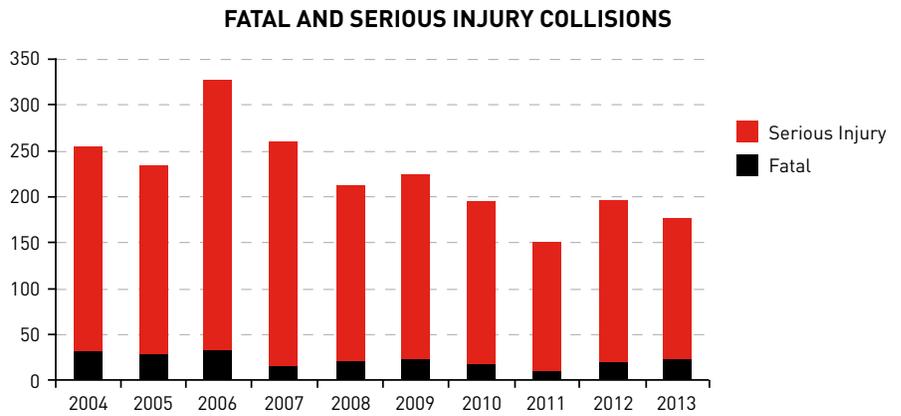
CITYWIDE COLLISION RATE



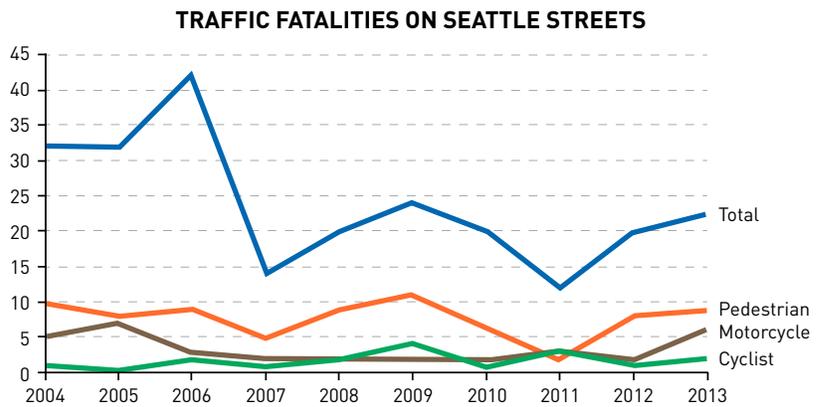
	Road Fatality per 100,000 people	2012 Fatalities	Population
Sweden*	3.0	285	9,500,000
United States*	11.6	36166	313,900,000
Washington State	6.4	444	6,897,012
King County	4.3	85	1,957,000
Seattle	3.2	20	634,535
Portland	5.3	32	603,106
New York City	3.2	268	8,336,697

\*Data from 2013 World Health Organization Report using 2010 numbers

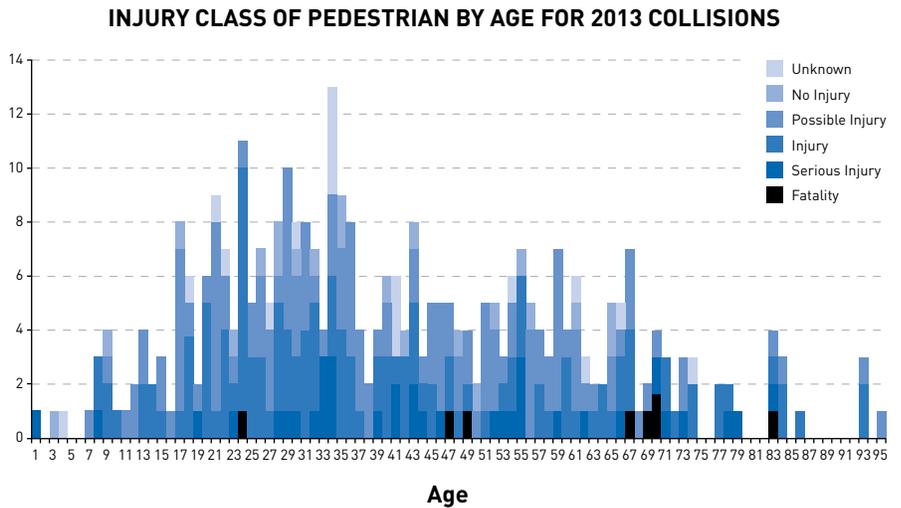
In 2013, more than 150 people suffered potentially life-changing injuries in collisions. 23 people were killed.



Crashes with pedestrians, bicyclists, and motorcyclists make up less than 5% of total crashes, but nearly 50% of the fatalities.



Unfortunately, people of all ages are involved in collisions as pedestrians. More often than not, the youngest and oldest are most impacted. It's time to retool our streets with an emphasis on improving safety for all ages and abilities.



## A STRATEGY THAT WORKS

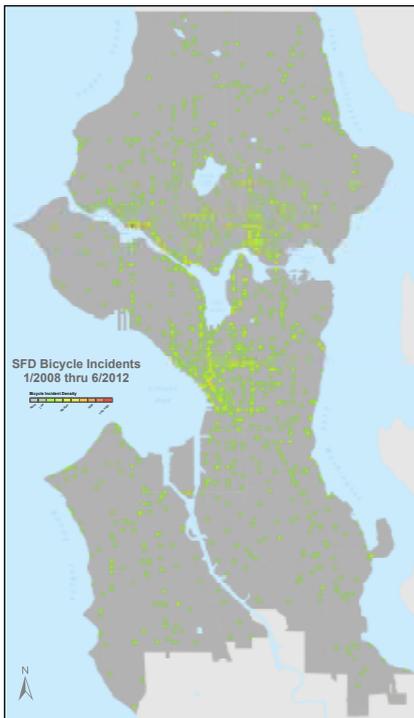
Vision Zero's comprehensive approach to safety has contributed to crash reductions worldwide. In Sweden, the birthplace of Vision Zero, fatalities dropped more than 30 percent since this policy was first enacted in the late 1990s. Governments in the US are taking note and adopting Vision Zero policies – most recently, New York City and San Francisco.

Washington State's Target Zero program provides an outstanding local example of how these strategies save lives. Traffic fatalities have dropped 40 percent in our state since the first version of Target Zero was launched in 2000. Through partnerships with the Washington Traffic Safety Commission, the Washington State Department of Transportation, and the Washington State Patrol, Seattle experienced collision reductions thanks to Vision Zero-style tactics employed on busy urban corridors.

On Aurora Avenue N, collaboration with the State led to a 28 percent reduction in fatal and serious injury crashes. We've carried these strategies into our work on corridors like Fauntleroy Way SW, NE 125th Street, Nickerson Street and NE 75th Street where collisions and speeds have gone down.



*Developed and implemented in less than six months (in 2013), the NE 75th Street Road Safety Corridor Project reduced speeds by 3 mph eastbound and 4 mph westbound. Crashes are down 50 percent. This is a strategy that works.*



*Using Seattle Fire Department data, SDOT looks beyond police reports to assess potential trouble spots*

## DATA-DRIVEN ACTIONS

We know that most crashes occur on arterial streets, and the laws of physics tell us that higher speeds will result in more crashes, and greater chances of injury or death for those involved. We also have a good sense of key crash causes, and know that certain streets have higher crash rates. Together, all this data means we can take a more proactive approach to reach our goal.

Our data-driven approach starts with SeaStat. This Seattle Police Department (SPD) program uses data to allocate police resources. We'll continually monitor collision trends and deploy enforcement appropriately.

We'll improve information sharing between SDOT and SPD after serious collisions occur through forensic engineering efforts. SPD's Traffic Collision Investigation Squad and SDOT engineers will review the factors that contribute to each serious collision that occurs on our streets. When bad things happen, it's important that we learn as much as possible from each incident.

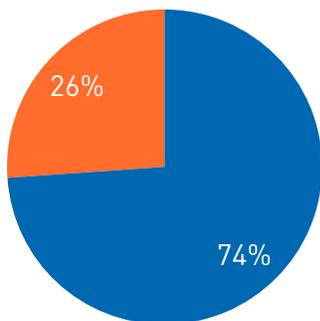
We'll also ensure that enforcement efforts focus on behaviors that endanger our most vulnerable roadway users. And we'll couple corridor safety improvements with enforcement to reduce speed, impairment, and distraction.

Finally, we'll support our engineering work through targeted public outreach and enforcement. We'll work with our partners to reach people of all ages and abilities through education programs like Safe Routes to School, Be Super Safe, Pedestrian Safety for Seniors, and our new overarching Vision Zero campaign.

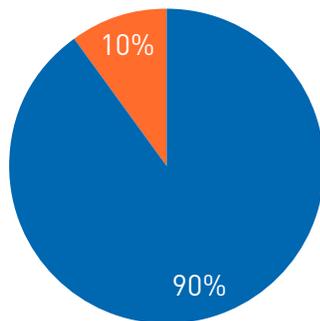
### Honing in on Arterial Street Design and Speed Limits

Forty percent of Seattle's street network is arterial streets. 9 out of 10 serious and fatal crashes occur on arterial streets, so we'll focus efforts on these critical corridors. We'll deploy quick, big impact improvements through our Road Safety Corridor projects, the Downtown and Urban Center Safety efforts, and by lowering arterial speed limits citywide. We'll also begin to reduce speed limits on our non-arterials roads through a new 20 MPH Zone program.

#### ALL COLLISIONS

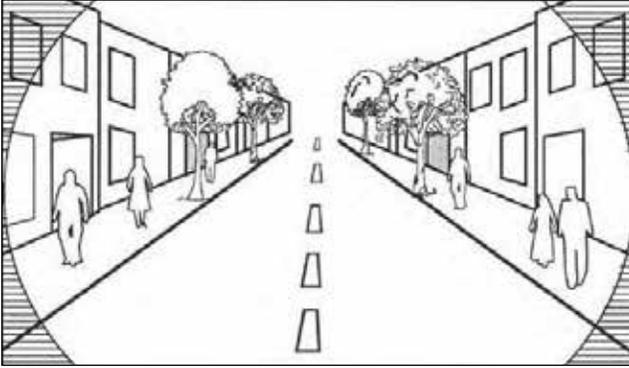


#### SERIOUS & FATAL COLLISIONS

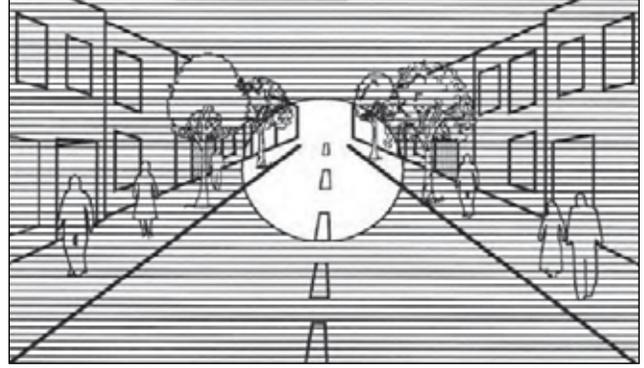


■ Arterial ■ Non-Arterial

## WHY SPEED MATTERS



Field of vision at 15 MPH



Field of vision at 30 to 40 MPH

A driver's field of vision increases as speed decreases. At lower speeds, drivers can see more of their surroundings and have more time to see and react to potential hazards.

**HIT BY A VEHICLE  
TRAVELING AT:**

**20  
MPH**



9 out of 10 pedestrians survive

**HIT BY A VEHICLE  
TRAVELING AT:**

**30  
MPH**



5 out of 10 pedestrians survive

**HIT BY A VEHICLE  
TRAVELING AT:**

**40  
MPH**



Only 1 out of 10 pedestrians survives

Speed is especially lethal for vulnerable users like pedestrians and people biking. The risk of injury and death increases as speed increases.

We should not accept death as a byproduct of commuting. It's time to slow down to the speed of life.



The average car trip in Seattle is 3.5 miles. Reducing the speed limit from 35 to 30 mph will add about a minute to this trip (or 17 seconds per mile), assuming free flowing traffic

# NEAR-TERM ACTIONS



Seattle's commitment to Vision Zero starts immediately. The actions in this section represent how we'll reduce serious and fatal crashes in the near-term, working toward our 2030 goal. They are grouped into three categories:

1. Street design, policies, and regulation
2. Education and public engagement
3. Enforcement

This action list is just the beginning. As we roll out the Vision Zero campaign, we will partner with other city departments and government agencies, community groups, and others to add to and refine it.

## **STREET DESIGN, POLICIES, AND REGULATIONS**

### **20 MPH Zone Program**

- Reduce speed limits on residential streets through a 20 MPH Zone program. Local streets with high collision history will be primary priorities and most 20 MPH Zones will be installed near schools or parks.
- Install signage and pavement markings to clearly delineate the 20 MPH Zone and ensure intersections are cleared of obstructions to improve visibility of pedestrians in crosswalks
- Install 5 – 10 zones in 2015

### **Reduce Arterial Speed Limits**

Review arterial speed limits and reduce to 30 mph or lower. Pair speed limit reductions with tools like radar speed signs and street design changes. Review speed limits through our annual programs and Road Safety Corridor projects. Work with State partners to make changes to State Routes like Aurora Avenue North, Lake City Way NE and Sand Point Way NE.

Lower speed limits on the following corridors in 2015:

- Martin Luther King Jr Way S
- Rainier Avenue S
- 35th Avenue SW
- SW Roxbury Street/Olson Place SW
- Delridge Way SW
- Fauntleroy Way SW
- Harbor Avenue SW
- Greenwood Avenue N
- Holman Road NW
- Seaview Ave NW
- 5th Avenue NE
- 15th Avenue NE



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Leading pedestrian intervals give people crossing the street a head start. The WALK signal begins a few seconds before the green light for cars. This improves visibility, making it easier for drivers to see pedestrians in the crosswalk.

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### **Downtown Safety**

Most pedestrian collisions occur downtown. In fact, more than 600 people have been hit while walking downtown in the last three years. While we've seen positive safety gains outside of the city center, we've seen an increase in the severity of collisions in the central business district - specifically collisions involving speeding. Prevent collisions through low-cost, quick changes including:

- Reduce speed limits to 25 mph throughout downtown, starting with Pike, Pine and James streets
- Data-driven pedestrian safety enhancements may include leading or lagging pedestrian intervals, protected turn phases, elimination of dual turn lanes, signal improvements, and no turns on red. 2015 locations include:
  - 5th Ave at Union, University, Spring, and Seneca Streets
  - 6th Ave at Pike, Spring, Cherry, James, and University Streets
  - 7th Ave and Olive Way

### **Urban Center Safety**

Bring a higher level of safety to Seattle's Urban Centers, where high volumes of vehicular traffic, transit, pedestrians, and bicyclists merge. Data-driven improvements may include modified signal phasing, traffic calming, protected turn phases and leading or lagging pedestrian intervals at the following locations:

- Lake City at NE 125th Street and Lake City Way NE
- White Center/Westwood at SW Roxbury Street and Delridge Way/16th Ave SW
- Columbia City and Hillman City on Rainier Ave S



*People crossing NE 125th St and Lake City Way.*



*Dexter Ave serves people biking, using transit, walking, and driving.*

### **Master Plan Development and Implementation**

In 2015, implement safety improvements identified in the Pedestrian and Bicycle Master Plans including:

- 7 miles of protected bike lanes
- 12 miles of neighborhood greenways
- More than 40 crossing improvements
- 14 blocks of new sidewalk
- Remark 500 crosswalks

In addition, SDOT and our community partners will develop a Freight Master Plan to focus on safe and reliable urban truck movements to support Seattle's maritime and manufacturing industry and our increasing demand for goods and services.

### **Transit safety improvements**

Improve safety and access for transit, through signal timing and lane allocation improvements. Make transit spot improvements that increase pedestrian safety and access to transit stops and stations.



*In 2015, major construction begins on 23rd Ave. Transit improvements, wider sidewalks, and a parallel neighborhood greenway are a few of the project elements that will improve safety for all.*

### **Road Safety Corridors**

Reduce collisions through low cost engineering, enforcement and education efforts on targeted corridors including:

- Rainier Ave S
- Lake City Way
- SW Roxbury Street
- 35th Ave SW
- Banner Way

### **Complete Corridors**

Plan and develop long-term multimodal improvements on corridors such as:

- Delridge Way SW
- East Marginal Way
- Yesler Way
- Greenwood Ave N
- 3rd Ave
- Beacon Ave S

### **Capital Projects**

Transform Seattle streets through major projects designed to ensure safe travel for pedestrians, bicyclists, and drivers

- 23rd Ave
- Mercer West
- Waterfront
- Broadway

### **Safe Routes to School (SRTS)**

In 2015, SDOT and our community partners will complete our School Road Safety Action Plan as a comprehensive guide to school safety. We'll also provide Safe Routes to Schools services throughout Seattle including:

- Infrastructure improvements at more than 20 schools
- 40 SRTS mini-grants



### **Crosswalk Policy**

Update SDOT's crosswalk policies to put greater emphasis on the presence of transit stops, elderly people, and students



### **High Reflectivity Pavement Markings**

Integrate more durable and visible pavement markings as the new standard for all roadway projects in Seattle

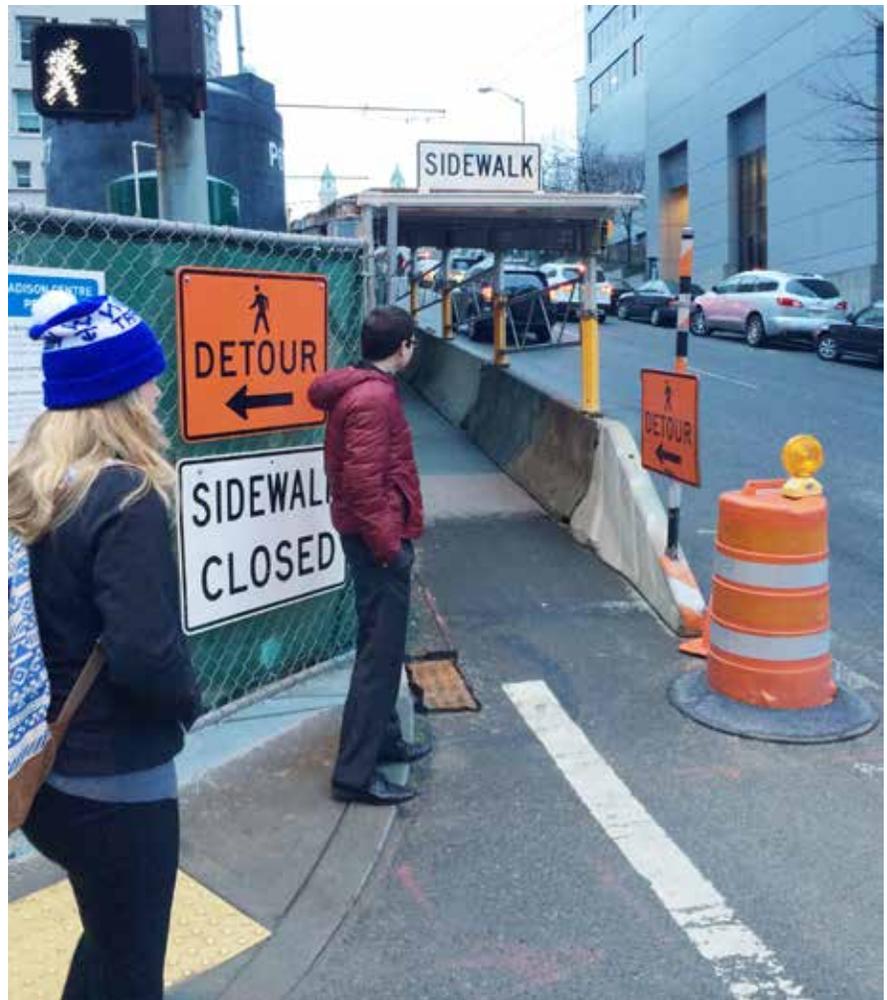
### **Right-of-Way Improvement Manual (ROWIM)**

Update the ROWIM to provide guidance to private developers on best practices for ensuring safety in the right of way. To include:

- New street types that prioritize safety and quality for all users
- New pedestrian and bicycle design standards
- A new section on interim design treatments that can offer low-cost, near-term solutions to improve safety in advance of secured capital funding

### **Construction Coordination**

Ensure that construction coordination strategies focus on keeping people safe on our streets during construction. Use creative and low cost solutions like signal timing modifications to ensure safe and predictable movements – especially for people walking and biking.





## EDUCATION AND PUBLIC ENGAGEMENT

### Vision Zero Campaign

Create an overarching outreach effort to highlight the impact of Seattle's Vision Zero campaign and change the way people behave on our streets

- Provide information to drivers, pedestrians and bicyclists about new roadway features, vehicle characteristics and how to look out for each other
- Partner with nightlife businesses, transit agencies, taxi operators, and transportation network companies to deter impaired driving by offering special services and promotions

### Targeted Outreach

Develop demographic, geographic, and modal-specific safety outreach materials including:

- Safe Routes to School (ages 5-18)
- Be Super Safe (ages 18-30)
- Pedestrian safety for seniors (ages 50+)

### Transportation System User Guides

Develop transportation user guides to ensure knowledge of transportation options and rules of the road including, whether walking, biking, using transit, or driving



### Stop For Pedestrians Signs

Install signage throughout the city to ensure that people understand existing pedestrian safety laws. This includes in-street signage at crosswalks and shoulder mounted "Stop for Me – It's the Law" signs.



*A young super hero goes through SDOT's road safety course at the Rainier Valley Summer Streets event in August 2014.*

### **Public Engagement**

- Host events and contests to distribute safety information and create a sustained public dialog about road safety
- Incorporate safety education activities into existing events, like Summer Streets and SDOT's Play Street Program
- Partner with advocacy organizations and other agencies to create a traffic safety education kit and other tools that community groups, schools, and others can use to promote road safety awareness and Vision Zero.

### **"Re-enforcement" Patrols**

Our safety record shows that Seattle does a lot of things right. SPD and SDOT will work together to reward and reinforce good behavior on our streets.

## **ENFORCEMENT**

### **School Zone Photo Enforcement**

In 2015, install at least twelve new cameras in six school zones, to reduce speeds and improve safety for kids, our most vulnerable travelers. SDOT will use funds generated through this program to improve the existing infrastructure near schools.

### **High Visibility Enforcement**

Inform and enforce approach in high crash locations targeting risky behaviors like:

- Distraction
- Impairment
- Speeding

### **Corridor Safety Patrols**

Target corridor-specific safety issues on major arterial streets

### **Pedestrian Safety Emphasis Patrols**

Enforce laws about failure to yield to pedestrians and “blocking the box” at crosswalks citywide

### **Bicycle Safety Emphasis Patrols**

Enforce all traffic laws for all travelers in locations where bicycle collisions occur frequently

### **Commercial Vehicle Enforcement**

Collaborate with the Washington State Patrol to ensure freight operators are able to move safely and efficiently through the city



# EVALUATION

Seattle builds evaluative components into most of our projects and we will report out on these efforts on an annual basis. The 'Vision Zero Report' will update the public on progress and tee up efforts for the upcoming year. The report will be issued in late October every year. In addition, we'll provide continuous updates at [www.seattle.gov/visionzero](http://www.seattle.gov/visionzero) to monitor our progress.

Ultimately, success will be reaching zero fatalities and serious injuries by 2030. Each year, our goal is for collision trends to decrease. Annually, we will track the following data points:

- Total number of collisions, fatalities, and serious injuries
- Total number of pedestrian collisions, fatalities, and serious injuries
- Total number of bike collisions, fatalities, and serious injuries



# CONCLUSION

Vision Zero is an aggressive, but critical goal; an acknowledgement that even one serious injury or traffic death is one too many. It is a goal that the city as a whole stands behind. It's a partnership between city departments, other public agencies, community groups, and each of us as individuals.

Vision Zero is a key element of moving Seattle forward as we continue to grow. A safe city is central to our quality of life and our economy. A safe city means that everyone, whether 8 or 80 years old, can get around comfortably and reliably.

Whether we're behind the wheel of a car or truck, on the seat of a road bike or tricycle, in a wheelchair, stroller, or jogging along the sidewalk – we are all people. We are neighbors, friends, moms, dads, grandparents, and children. In the rush of daily life, with so much information available at the tip of our fingers, we too often forget that we are all trying to get somewhere or to someone.

We look forward to working with you to make sure that no matter how we're travelling and where we're going, we reach our goal of Vision Zero together.

