

VISION ZERO

#### Legal Considerations

Achieving Vision Zero's goals are dependent upon available funding to implement the City of Portland's strategic policy choices, made in its judgment—in collaboration with its community partners—to best address the factors most often linked to causing traffic violence. Achieving optimal performance of each action under Vision Zero is dependent upon available funding from the City of Portland and other participating governmental agencies.

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# Letter from the Commissioner

Dear Fellow Portlanders,

2019 has been a particularly tragic year for traffic safety in Portland so far. But traffic fatalities impact our community beyond any one particular year. As Portland's Transportation Commissioner, I am committed to creating a transportation system that gets you and your loved ones home safely at the end of every day—however you choose to travel. I believe that everyone deserves safe streets.

With this report, we are taking a hard look at what is working to make streets safer and where we need to refocus and recommit. Eliminating traffic deaths is not an easy task, and it will require that we prioritize safety over speed.

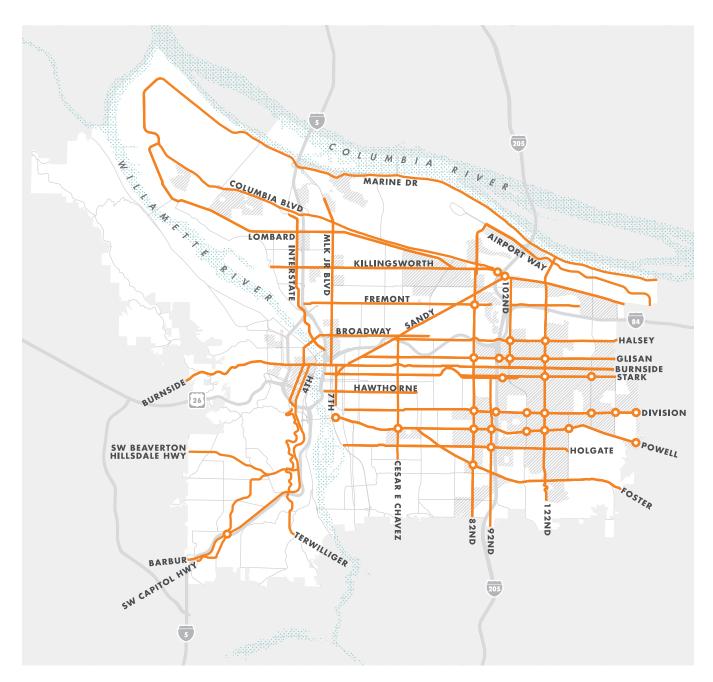
Here, we have outlined a set of commitments that puts safety front and center. We will prioritize pedestrian safety at intersections, respond rapidly and visibly to address conditions at fatal crash sites, and continue our work to bring speeds down throughout the city, since speed is a major factor in half of the traffic fatalities in our city. These changes will have an outsized impact in historically underserved parts of Portland, where a disproportionate number of crashes occur.

Finally, we will continue our work to give Portlanders safe travel options, since research shows that fatal crashes increase steadily as vehicle miles traveled rise.

We must continue to address disparities and make city streets accessible and safe for everyone. I urge all Portlanders to support our Vision Zero strategy and do everything you can to help make the goal of zero traffic fatalities in Portland a reality.

CALOR Endely
Chloe Eudaly

Commissioner of Transportation



#### HIGH CRASH NETWORK

Composite of motor vehicle, bicycle, and pedestrian high crash networks  $\ensuremath{\mathsf{Source}}$  PBOT

= TOP 30 HIGH CRASH STREETS

= TOP 30 HIGH CRASH INTERSECTIONS

= COMMUNITY OF CONCERN

# PORTLAND'S VISION ZERO COMMITMENT

No person should die or be incapacitated in the everyday act of moving about. But each year dozens of Portlanders lose their lives doing just that. In 2015, Portland made a commitment to eliminate traffic deaths and serious injuries on city streets. The 2016 Vision Zero Action Plan mapped out actions to make that commitment a reality.

Two and a half years later, we have seen progress. In 2018 traffic deaths were the lowest in four years, down nearly 25% from the previous year.

But one year is not a trend, and 34 traffic deaths are 34 too many.

As we take stock of where we stand today, Portland is looking hard at our Vision Zero efforts over the past two years. What has worked best? What trends are we seeing? And where should we focus limited city resources to achieve the greatest impact moving forward? This report describes lessons learned during Portland's first two years as a Vision Zero city and sets the stage for the next phase of work.



Portland data shows traffic fatalities concentrated in communities of color. But disparities reach beyond deadly crashes. In 2018, PBOT worked with the Portland African American Leadership Forum, Black Parent Initiative, Immigrant and Refugee Community Organization, Africa House and the June Key Delta Community Center to engage 60 Black Portlanders in Walking While Black<sup>1</sup> focus groups. Participant recommendations—including a focus on personal safety in the right-of-way and the need for better street lighting—have informed the commitments in this report.

#### GUIDING PRINCIPLES, UNSETTLING TRENDS

Informed by community and agency partners, the 2016 Vision Zero Action Plan articulated principles that continue to guide our work:

#### **EQUITABLE**

It will be **equitable**, with a focus on benefiting low-income Portlanders and people of color, and it **will not result in racial profiling** 

#### **DATA-DRIVEN**

It will be **data driven** to address the causes and locations that lead to death and serious injury on Portland streets

#### **ACCOUNTABLE**

It will be **accountable**, measuring success by the level of investment in historically underserved communities, as well as by safety metrics

These principles remain front and center informing our response to trends that emerge from safety and equity data:

- ▶ Portland streets are disproportionately dangerous for people walking. Nearly half of the 34 people who died on Portland streets in 2018 were people walking.
- ▶ East Portland, home to many of the city's low-income residents and people of color, sees more than its share of fatal crashes.

  With 25% of Portland's population, this section of the city has more than 50% of traffic deaths.

  Twenty-three of the 34 of the deadly crashes in 2018 were east of 82nd Avenue.
- ➤ Speed is a factor in 47% of fatal crashes. Higher speeds mean more risk and greater damage when people are distracted, drive impaired, or simply make mistakes.

These trends affirm the need to protect the most vulnerable Portlanders. We must double down on lowering speeds, redesigning streets to make walking safe, and prioritizing human safety over saving time.



# WORKING TOWARD A SAFE SYSTEM

Two years of experience make it clear that achieving Vision Zero requires a new way of thinking about traffic safety. The World Health Organization<sup>2</sup> describes the need for a systemic approach that starts from a basic assumption: **human life and health should not be compromised by the need to travel.** 



Core "Safe Systems" principles underpin this approach:

#### People are vulnerable

Simple physics dictates that the human body cannot withstand impact from a vehicle moving faster than 20 miles per hour without significant risk of serious injury or death. People walking and bicycling are at the greatest risk in the event of a crash.

#### People make mistakes

Even when they are not deliberately taking risks, people make mistakes that result in crashes. This is true whether they are driving, walking, or traveling by other means. Deadly crashes will not be eliminated unless we design streets to help reduce the frequency and severity of crashes resulting from human error.

#### **People share responsibility**

Traditionally, individual road users have borne much of the responsibility for their own safety while traveling. Under the Safe Systems approach, that responsibility is shared among those who design, build, operate and use the street system.

# Built-in protections minimize the deadly consequences of mistakes

The street system must be designed with multiple protective elements so that if one element fails, others still offer protection. For example, a system to protect pedestrians includes frequent safe crossings, street lighting, a cultural acceptance of slower speeds and people educated about how to interact safely on the streets.

These realities shape Portland's street safety work as we build on the 2016 Vision Zero Action Plan and set priorities for the coming years.

# STRATEGIC COMMITMENTS TO ACHIEVE THE VISION

Portland's Vision Zero Action Plan set out specific, measurable actions to move toward zero traffic deaths or serious injuries on Portland streets. Progress reporting on individual actions can be found at www.portlandoregon.gov/transportation/74093

In this report, we highlight progress and challenges in the two years since the Action Plan was adopted—and outline a set of strategies to address those lessons learned.

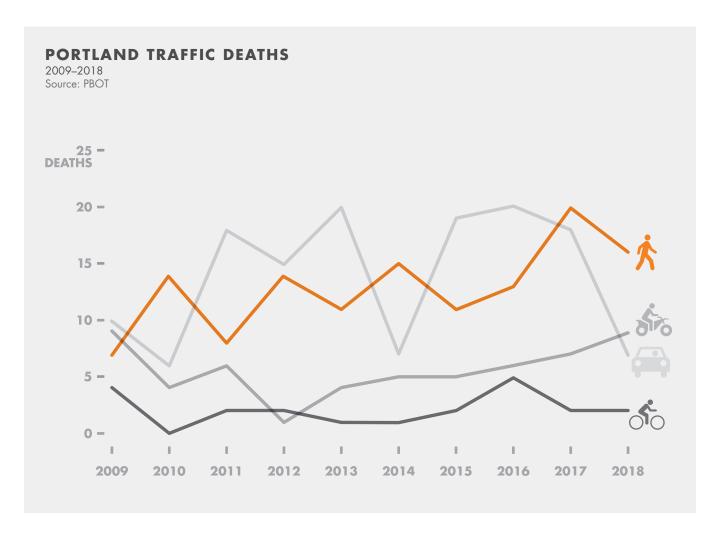
#### **STRATEGY**

# PROTECT PEDESTRIANS

Out of 34 traffic deaths in 2018, 16 were people walking. This reflects a continuing trend: during the past five years, on average 39% of traffic deaths have been pedestrians.

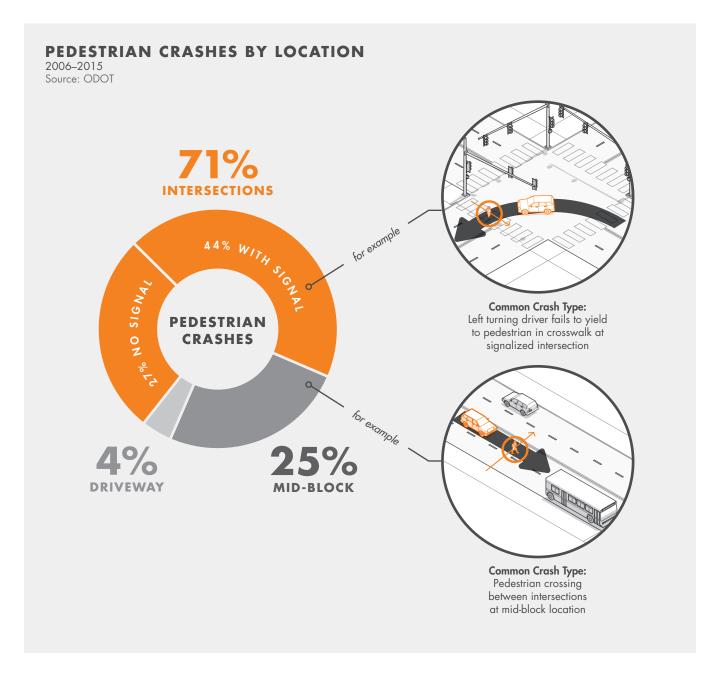
#### What the data tells us about pedestrian crashes

- ▶ 71% of all pedestrian crashes occur at intersections, with 44% at signalized intersections.
- ▶ 20% of pedestrian crashes result from left-turning drivers failing to yield to pedestrians in the crosswalk at signalized intersections.



- ▶ 25% of all pedestrian crashes occur mid-block, due in part to long distances between marked crossings.
- ▶ 49% of all pedestrian crashes occur in low-light conditions

Many actions to make walking safer are set out in PedPDX<sup>3</sup>, Portland's new pedestrian plan. PedPDX prioritizes sidewalk and crossing improvements to make walking safer and more comfortable across the city.



Change signal timing and operations to make it safer to cross the street

#### **COMMITMENTS**

- ► Install leading pedestrian intervals (LPIs) at new or upgraded traffic signals on High Crash Network streets to give pedestrians a head start and make them more visible. Retrofit at least ten existing priority crossings each year
- Install protected left turns at new or upgraded signals on at least three priority intersections on the High Crash Network each year
- ▶ Put "no right on red" restrictions in place at priority High Crash Network intersections.

#### **OBJECTIVE**

Improve visibility at pedestrian crossings by removing parking and overgrown vegetation

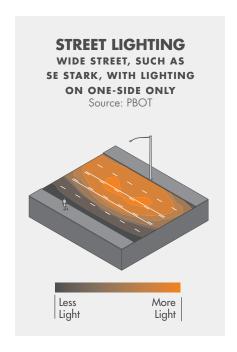
#### **COMMITMENTS**

- Include a pedestrian safety visibility review as part of all PBOT capital projects, paving projects, and development review
- Remove parking and vegetation as needed for safe crossings as part of capital and paving projects
- Remove parking at priority crosswalk approaches for uncontrolled crossings on at least three High Crash Network streets each year

Prioritize street lighting investment where the High Crash Network, pedestrian districts, low-income populations and communities of color overlap

#### **COMMITMENTS**

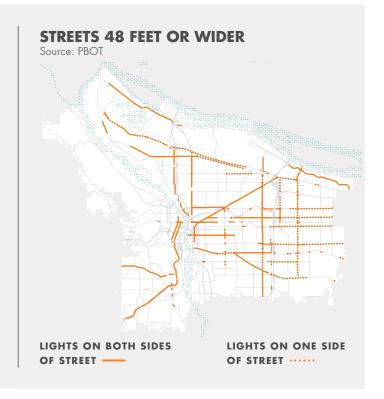
- In 2019, add street lighting to SE Division Street, including pedestrian scale lighting at certain marked crossings
- ► In 2020, add street lighting to SE Stark Street, including pedestrian scale lighting at certain marked crossings
- ▶ By 2021, develop functional lighting layouts for wide High Crash Network streets in East Portland
- Develop a funding strategy to advance these lighting plans





# ADDRESSING DISPARITIES Lighting needs are greatest in East Portland

49% of Portland's pedestrian crashes occur in dark or low-light conditions. By City guidelines, streets wider than 48' should have two-sided lighting. Citywide, 61% of High Crash Network streets wider than 48' have lighting on two sides. By contrast, only 22% of wide High Crash Network streets in East Portland have two-sided lighting.



Fill crossing gaps to reduce mid-block crashes

#### COMMITMENTS

- Ensure all new PBOT capital projects meet Portland's pedestrian spacing guidelines
- ▶ By 2021, increase by 10% the High Crash Network streets that meet Portland's pedestrian spacing guidelines
- ▶ Identify funding to accelerate to 80% High Crash Network streets that meet spacing guidelines within five years.

#### **OBJECTIVE**

Protect people from heavy truck injuries by installing side guards and other safety measures on City-owned and Citycontracted trucks

#### COMMITMENTS

- In 2019, retrofit eligible City heavy truck fleet with side guards
- ▶ In 2020, advance a policy requiring all City-owned and Citycontracted trucks to have safety measures in place (side guards, mirrors, cameras and training)



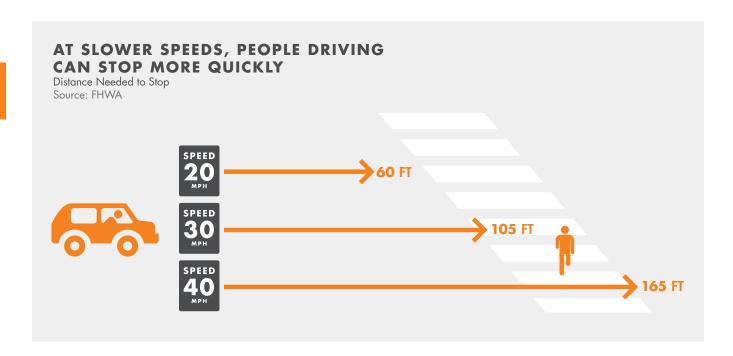
The Portland Bureau of Planning and Sustainability led a pilot with 11 garbage and recycling contract companies and installed side guards on 18 trucks. Lessons from the pilot are informing the outfitting of City-owned heavy trucks in 2019.

#### **STRATEGY**

# REDUCE SPEEDS CITYWIDE

Slower speeds reduce the number and severity of crashes. Slower-moving drivers can stop more quickly to avoid a crash—and when a collision does occur, lower speeds reduce the chance of injury or death.

Following international best practices, Portland is lowering speeds where people walking, bicycling and driving mix. Slower speeds help prevent death or serious injury when mistakes happen and crashes occur. Where there is separate and protected space for people walking and bicycling, speeds can be somewhat higher.



"It's the right thing to do.
I mean if you're speeding, it's hazardous. There's a speed limit for a reason, you should follow it."

#### **SURVEY RESPONDENT**

PBOT Speeding Reduction Survey, DHM Research Lowering speeds requires a comprehensive, multi-disciplinary approach. Specific strategies include:

- ► Set safe speed limits
- ▶ Redesign dangerous streets to encourage safe speeds
- ▶ Educate Portlanders about the impact of speed
- ► Enforce the speed limit

Each of these is a cornerstone of Portland's work to prevent fatal crashes.

#### **OBJECTIVE**

#### Set safe speed limits

While reducing speed limits is not a standalone solution, it is an important part of overall speed reduction. Speed limits set an expectation about how fast it is acceptable to drive.

In Oregon, the state Department of Transportation (ODOT) has authority to set speed limits on all streets—even in large cities. To lower local speed limits within city boundaries, each year Portland submits dozens of requests to ODOT for speed limit reductions. Although many requests are granted, this piecemeal approach does not go far enough to support Portland's safety goals. Portland will continue to pursue authority to set speed limits locally.

#### **COMMITMENTS**

- Consistently and aggressively reduce speeds on city-owned streets until safe speed limits are established citywide
- Gain local authority for setting speed limits on City of Portland streets



"SPEEDING IS UNSAFE
AND INCREASES THE RISK
OF CRASHES, SERIOUS
INJURY OR EVEN DEATH."

AGREE 12%

88%

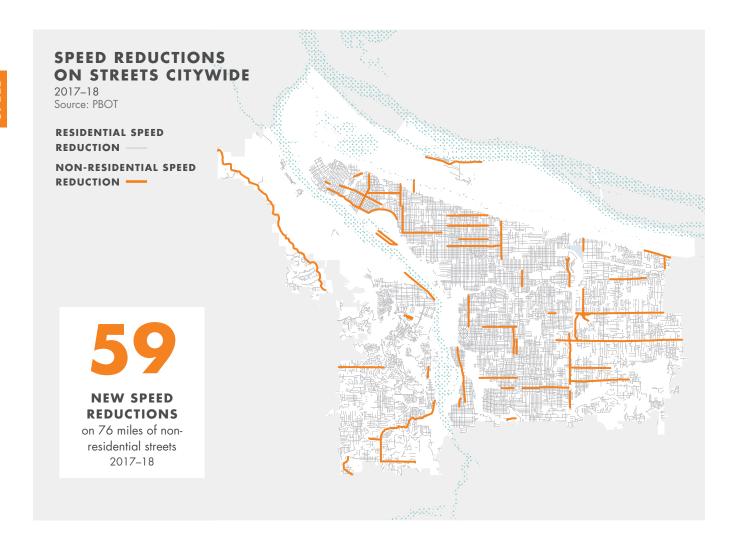
PBOT conducted a survey of 400 Portlanders to understand perceptions about speeding. Nearly all residents agreed that speeding is unsafe and increases the risk of crashes. Three-quarters of respondents support speed safety cameras as a safety tool on high crash corridors.

#### Redesign dangerous streets to encourage safe speeds

Street design has a powerful effect on how fast people drive. Narrower lanes, more medians and trees, better pedestrian crossings, signal timing and closer signal spacing can all help reduce speeding.

#### **COMMITMENT**

► All new High Crash Network capital projects will include project components that help achieve safe speeds.



#### **Educate Portlanders about the impact of speed**

In American culture, speeding is often a socially accepted norm. By raising awareness about deadly consequences, Vision Zero targets this cultural acceptance of driving fast. Media campaigns, community trainings, social media, and yard signs can help Portlanders understand why speed matters—to them and to their neighbors.

#### COMMITMENTS

- ▶ Re-run the citywide Struck speed campaign in 2019 and 2020 to remind people of the life-changing impact of crashes
- ▶ In 2019 and 2020, work with agency and community partners to create location-based, community-oriented safe speed campaigns that leverage Struck messaging



**Struck** campaign: PBOT launched a citywide education campaign focused on the human toll of high-speed collisions. 58% of Portlanders who saw the campaign say *Struck* changed their driving behavior.



#### ADDRESSING DISPARITIES

# Making streets safer means increasing personal security on Portland streets for community members of color

Over the past two years, PBOT has heard from many Portlanders of color that concerns about personal safety—in addition to traffic safety—are a deterrent to walking and bicycling. PBOT will work closely with agency and community partners in the coming years to identify and address these concerns. Citywide education and local programming will target hate speech and focus on community respect and cohesiveness as well as traffic safety. These efforts will leverage the *Struck* campaign's focus on speed and dangerous driving behavior.



**20 is Plenty campaign:** In 2018, Portland City Council enacted new authority granted by the Oregon Legislature to reduce residential street speeds from 25 mph to 20 mph. PBOT printed and distributed 7,000 wildly popular "20 is Plenty" yard signs to notify people about the change.

#### **Enforce the speed limit**

Portland uses crash data to focus traffic enforcement on the most dangerous behaviors, including speeding. Focusing enforcement on specific violations is intended to save lives and reduce the possibility of racial profiling. In 2018, the Portland Police Bureau launched a public-facing online Traffic Enforcement Dashboard to increase traffic citation transparency.

Speed safety cameras have proven effective at reducing speeding. Since 2016 Portland installed eight speed safety cameras on four of the most dangerous streets in the city. On average these cameras have reduced speeding overall by 59%, with top end speeding (more than ten miles per hour over the speed limit) dropping by 85%.



#### **COMMITMENTS**

- In 2020, add at least four speed safety cameras or dual red-light running /speed safety cameras to Portland streets
- Add to City's legislative agenda a change in type of citation issued for automated enforcement tickets from moving violations to civil fines, which can reduce the burden of a citation while still supporting safe travel behaviors



# ADDRESSING DISPARITIES Offer traffic safety classes in lieu of traffic citations

Enforcement is critical to traffic safety, but fines can place an undue burden on low-income Portlanders. To reduce this inequity, first-time offenders who are issued speeding or red-light-running citations by a safety camera may attend a traffic safety class in lieu of paying the citation. These classes reduce the financial burden of a citation—and participants report that what they learn changes how they drive.

### EFFECTS OF SPEED SAFETY CAMERAS

Percent reduction in speeding Source: PBOT

**SE 122ND AVE** 

68% DECREASE

SW BEAVERTON-HILLSDALE HWY

61% DECREASE

**NE MARINE DRIVE** 

50% DECREASE

**SE DIVISION STREET** 

47% DECREASE

**STRATEGY** 

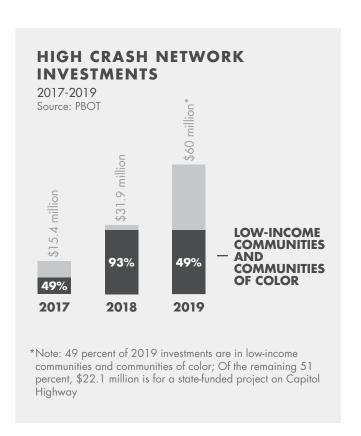
# DESIGN STREETS TO PROTECT HUMAN LIVES

A "safe systems" approach means designing streets to protect people even when they make mistakes. Street improvements that slow traffic and provide separation between modes give visual cues that cars, trucks, bikes, and pedestrians are expected to share the streets. These environmental cues lead people to make safer choices.

# TRANSFORMING PORTLAND'S MOST DANGEROUS STREETS

In the last two years, 65% of Portland's traffic deaths occurred on 8% of Portland streets. Many of these wide, fast streets need transformative changes that only major projects can provide. These projects can often take years to fund, design and build—but PBOT is doubling down on them, delivering the corridor-wide projects that are the backbone of Vision Zero actions.





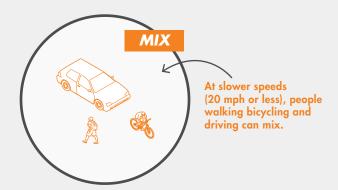
# Transform wide, fast streets into streets that are safer for all modes

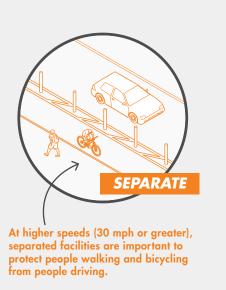
Over the past two years PBOT has standardized the process by which projects are planned, designed and built, setting the stage for delivery of major safe systems projects over the next 3 years on Portland's most dangerous streets.

#### COMMITMENTS

- ► In 2019, deliver corridor-wide safety projects on the following High Crash Network streets:
  - NE 102nd Avenue (NE Weidler to NE Sandy)
  - NE Glisan Street (NE 122nd to NE 162nd)
  - NE Marine Drive (NE 33rd to NE 185th)
  - SE Foster Street (SE 50th to SE 90th)
- In 2020, deliver corridor-wide safety projects on the following High Crash Network streets:
  - SE Division Street (SE 80th to SE 174th)
  - SE/NE 122nd Avenue (SE Foster Road to NE Marine Drive)
  - SW Capitol Highway (SW Garden Home Road to SW Taylors Ferry; SW Huber Street to SW Kerr Parkway)
- ▶ In 2021, complete concept design plans for all HCN streets

The human body has limited physical ability to tolerate the force of a crash. Hence, different levels of protection should be in place when vehicles travel at different speeds.





# RAPID RESPONSE PROJECTS TO IMPROVE SYSTEM SAFETY

Because major safety improvements can take years to complete, Portland will deploy a series of rapid response projects to make high crash locations safer in the meantime. These can be delivered quickly to make systemwide safety fixes even as larger transformational projects work their way through planning, funding, public process and construction.

#### **OBJECTIVE**

# Pilot rapid-response installations to slow left turns and prevent pedestrian crashes

Left turns at signalized intersections are a leading cause of pedestrian crashes. To prevent these crashes (which often occur when pedestrians are walking legally in the crosswalk), PBOT will test rubber speed bumps and centerline delineators to slow turning vehicles and improve visibility.

#### **COMMITMENTS**

- ▶ In 2019, pilot left turn calming treatments at 40 signalized intersections and evaluate their effectiveness in slowing speeds to reduce the number and severity of crashes
- ▶ In 2020, expand left turn calming treatments if evaluation shows they are effective
- ▶ In 2020, identify the next rapid-response treatment to systemically address pedestrian crashes

#### **OBJECTIVE**

# Evaluate deadly crash sites to identify rapid response opportunities

#### COMMITMENTS

- After every fatal crash, evaluate crash factors, determine whether immediate safety improvements are needed, and identify whether a plan (and/or funding) is in place to address the site
- Where feasible, put swift, temporary traffic and operational changes in place

### NYC LEFT TURN TREATMENTS

New York City has installed left turn calming treatments at more than 300 intersections. Average speeds have decreased 45%, from 7.7mph to 4.3mph.



#### **STRATEGY**

# CREATE A CULTURE OF SHARED RESPONSIBILITY

Education and outreach are critical to achieving safe streets in Portland. In a safe system City-led infrastructure and enforcement complement programs that engage people in making their streets safer. The responsibility for safe streets is shared between transportation system designers/operators and users of the system.

As we lower speeds and deliver safety projects, PBOT's engagement and education programs will raise awareness about dangerous behavior and help shape community expectations around speed and other crash factors.

Over the next three years, actions to create a culture of shared responsibility will include:

- ► Offering neighborhood-specific and culturally-specific traffic safety education in a range of different languages
- ▶ Re-running the citywide Struck education campaign along with localized programs reinforcing the message that unsafe driving impacts many lives
- ➤ Starting every PBOT Budget Advisory Committee meeting by reading the name of every person who has died in a traffic crash that year to emphasize the importance of investing in safety
- ► Using PBOT's Safe Routes to School program to remind parents that safe driving around schools is critical for student and neighborhood well-being

These actions are woven into the fabric of PBOT's safety and community engagement work. Other specific commitments are listed below.

Mark the locations of tragic deadly crashes and raise public awareness of the importance of driving safely

#### COMMITMENT

► After every deadly crash, PBOT will install prominent electronic Variable Message Signs (VMS) at the crash location on City streets

#### **OBJECTIVE**

Deploy community-based Street Teams to share safe travel tips and engage with people on Portland's High Crash Network streets

#### COMMITMENTS

- In coordination with community partners, conduct at least six Street
   Team events each year on the High Crash Network to educate
   Portlanders about safe travel
- Focus Street Team events in communities of color and low-income communities

#### **OBJECTIVE**

# Improve driver stopping compliance for pedestrians at crosswalks

Every intersection, and certain midblock locations, are legal crosswalks in Oregon. Oregon's crosswalk law requires that drivers stop and stay stopped for pedestrians in the crosswalk, whether it is marked or unmarked.

#### COMMITMENT

In partnership with Portland Police Bureau Traffic Division, conduct monthly crosswalk education and enforcement actions with a focus on High Crash Network streets









### ADDRESSING DISPARITIES Culturally specific traffic safety engagement and training examples

Many new Portlanders have arrived recently from countries with different traffic norms, and many longtime residents of color have been displaced to neighborhoods with wide, fast streets. PBOT offers community trainings to engage diverse groups around traffic safety, and provide information for kids and adults alike, including:

- ► Collaboration with the Portland Chinese Times and the Asian Pacific American Network of Oregon (APANO) to host safety trainings in Cantonese, including a "Walk and Talk" training for over 100 adults in Portland's Jade District
- ► A multi-day driver education program is offered specifically to immigrants and refugees, and includes in-the-classroom and behind-the-wheel training
- ► East Portland Spanish-language safety trainings led by community members who participated in PBOT's train-the-trainer safety program
- ➤ Transportation safety-focused trainings and events hosted by community partners like the Rosewood Initiative and the Division-Midway Alliance, delivered in non-English languages including Spanish, Tongan, Burmese and Karen.

#### PEOPLE KILLED IN TRAFFIC IN PORTLAND IN 2017 AND 2018

Brandon

Michael Alejandro John Gregory **Brandon & Don** 

Daniel Toby

John Jason Ryan Harvey Reke Thomas Hoa Alan

Akeeylee & Quilly

John Sandra William Eve Lisa Steven Cassidy Dennis

Madison Elizabth Kim Logan Gregory
Nathaniel

Daniel

Renee Justin

Erick Jimmie Dayozlah

Erick Charles
Christopher Joshua
Clayton Jason Darnell
Charles Erin Carmen Perwin Yelena
Calvin Charles Enrico Njuguna Ted Lawrence

Wes Tamar

Carmen Perwin Yelend
Calvin Charles Enrico
Jessica Jeremy Dorothy
Daniel Fuk Loan James
Patrick Jeremy

**Daniel Patrick** 

Richard Hussain

James Charles

> Pamela Theodore

Shad (



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