# HIGH CRASH CORRIDOR PROGRAM SE DIVISION STREET SAFETY PLAN



FEBRUARY 2013
CITY OF PORTLAND
BUREAU OF TRANSPORTATION

## Prepared by CITY OF PORTLAND BUREAU OF TRANSPORTATION

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### **Special Thanks to Our Partners**









Planning Process Funded in part by Oregon Department of Transportation National Highway Traffic Safety Administration

www.portlandoregon.gov/transportation/

### **KEY FINDINGS**

<u>Pedestrian-Involved Crashes</u>: The percentage of crashes involving pedestrians on Division Street is about 50% higher than the citywide percentage.

<u>Pedestrian Crossings</u>: The average distance between pedestrian crossing improvements is about 1/4 mile.

<u>High Crash Intersections</u>: Five intersections on Division Street are included in the City's Top 25 High Crash Location listing.

<u>Driveway Crashes</u>: The incidence of driveway crashes on Division is about 50% higher than the Citywide average. Crashes at driveways tend to result in more injuries and deaths.

<u>Reckless Driving</u>: Reckless driving is overrepresented as a crash factor. About 40% of drivers are driving faster than the posted speed throughout the corridor.

<u>Bike Crashes</u>: There were 66 bike crashes on Division from 2001 to 2010. Bike crashes account for 1.8% of the total crashes on Division, which is similar to the percentage of bike crashes citywide. 39% of those involved right turning vehicles, while 25% involved bicyclists attempting to cross Division.

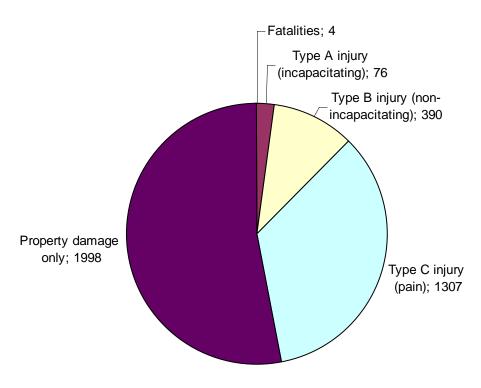
### **SUMMARY OF CORRIDOR CRASH DATA**

Corridor Data Overview				
Average daily traffic volume	<ul> <li>Ranges from 13,000 to 18,000 west of 60<sup>th</sup> Avenue</li> <li>Increases to 48,000 east of 122<sup>nd</sup> Avenue</li> </ul>			
Roadway configuration curb-to-curb	<ul> <li>West of 60th: Typically 1 travel lane in each direction, on-street parking</li> <li>60th to 80th: Typically 2 travel lanes in each direction, no on-street parking</li> <li>East of 80th: Typically 2 travel lanes in each direction, center turn lane, bike lanes, on-street parking</li> </ul>			
Total roadway width	<ul> <li>West of 60th: 36 feet</li> <li>60th to 82nd: 44 feet</li> <li>East of 80th: 76 feet</li> </ul>			
Total length of corridor	8.5 miles, from SE 11 <sup>th</sup> Avenue to SE 185 <sup>th</sup> Avenue (City limits)			
Posted speed	<ul> <li>West of 60th = 25 mph</li> <li>60th to122nd = 35 mph</li> <li>East of 122nd = 40 mph</li> </ul>			

2007-2010 High Crash Intersection Locations Along Division Street *					
SE 122 <sup>nd</sup> Ave	Ranks #3	175 crashes (5 pedestrian & 1 bike)			
SE 148 <sup>th</sup> Ave	Ranks #8	79 crashes (2 pedestrian)			
SE 82 <sup>nd</sup> Ave	Ranks #14	96 crashes (3 pedestrian & 1 bike)			
SE 162 <sup>nd</sup> Ave	Ranks #18	98 crashes (2 pedestrian & 1 bike)			
SE 92 <sup>nd</sup> Ave	Ranks #25	60 crashes (2 pedestrian)			

<sup>\*</sup> The City's High Crash Intersection listing considers the number of crashes, as well as fatality and injury crashes and number of vehicles traveling through the intersection. This may result in intersections with a lower number of crashes ranking higher than other intersections.

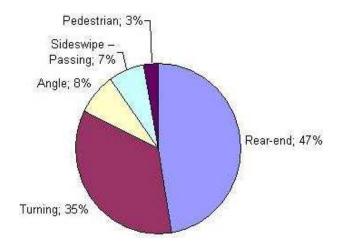
### Crash Injuries and Fatalities (3775 Total Crashes 2001-2010)

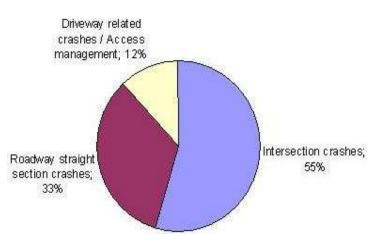


96 Crashes involved pedestrians 56 Crashes involved bicyclists



### Crashes by Top Three Locations Types (2001-2010)





#### **UNSAFE CONDITIONS TO ADDRESS**

**Pedestrian-Involved Crashes and Crossings**: The percentage of crashes involving pedestrians on Division Street is about 50% higher than the citywide percentage.

- The average distance between pedestrian crossing improvements is about 1/4 mile, with longer gaps east of I-205.
- 72% of the pedestrian crashes are occurring east of 80<sup>th</sup> Avenue where Division is a 5-lane roadway (east of 80<sup>th</sup> comprises only 58% of the entire corridor.)
- All but one of the pedestrian crashes involved pedestrians crossing Division. 30% occurred while pedestrians were crossing at traffic signals.
- More than half (54%) of crashes occurred where pedestrians were crossing between intersections.
- 13 pedestrian crashes (13%) involved alcohol. This is quite high compared to the corridor-wide percentage of 2.3% for all crashes.
- Majority of pedestrian crashes are occurring during daylight hours (57%), which is typical citywide.

**High Crash Intersections**: Five intersections are included in the City's Top 25 High Crash Location listing.

- 122<sup>nd</sup> Avenue (ranked #1)
- 148<sup>th</sup> Avenue (ranked #10)
- 82<sup>nd</sup> Avenue (ranked #15)
- 162<sup>nd</sup> Avenue (ranked #16)
- 96<sup>th</sup> Drive / SE I-205 NB ramp (ranked #24)

**Driveway Crashes**: The incidence of driveway crashes on Division is about 50% higher than the citywide average. Crashes at driveways tend to result in more severe crashes.

- 85% of the driveway crashes are occurring east of 80<sup>th</sup> Avenue where Division is a 5-lane roadway. This segment of Division comprises on 58% of the entire corridor.
- The majority of crashes occurring at driveways involve drivers turning from driveways onto Division (71%). Additionally the majority of these crashes are drivers turning left (78%).

**Reckless Driving**: Reckless driving is overrepresented as a crash factor. About 40% of drivers are driving faster than the posted speed throughout the corridor.

**Bike Crashes**: There were 66 bike crashes on Division from 2001 to 2010. This represents 1.8% of all crashes along the corridor, which is similar to the percentage of bike crashes occurring citywide. 39% of bike crashes on Division involved right turning vehicles, while 25% involved bicyclists attempting to cross Division.

#### **PUBLIC INVOLVEMENT PROCESS**

March 7, 2012 Public Open House for Division Street High Crash Corridor

<u>September 26, 2012 Public Meeting #1</u> for focus area 60<sup>th</sup> to 80<sup>th</sup>, jointly hosted with Mt Tabor NA and South Tabor NA

November 7, 2012 Public Meeting #2 for focus area 60<sup>th</sup> to 80<sup>th</sup>, jointly hosted with Mt Tabor NA and South Tabor NA

Additional outreach and education events are detailed in the attached matrix.

### **RECOMMENDATIONS & SAFETY ACTION PLAN MATRIX**

The following safety action plan matrix details the "Three E" approach to be implemented in the next 2 years to reduce traffic crashes and crash-related injuries and fatalities for all modes of transportation. The "Three E's" include engineering, education and enforcement solutions. In addition, the matrix includes funding status, cost estimates, and safety concerns addressed by each tool.

While the matrix details short-term (1-2 year) improvements, the following long-term and more expensive engineering solutions should be considered along Division but are outside of the scope of this project.

- Audible pedestrian signal enhancements as part of future signal upgrades.
- Safety improvements such as center median islands, pedestrian crossing improvements, and signal improvements 60<sup>th</sup> to 80<sup>th</sup> Avenues (ODOT, TriMet and PBOT have partnered to request funding for 2016/17).
- Develop Access Management Plan or City Policy related to access management.
- Continue East Portland in Motion recommendations.
- Continue projects identified in other planning documents adopted by the City of Portland.

Engineering Actions	Funding Status	Cost Estimates			y Issu resse	
			Driver Safety	Transit Access	Ped Safety & Access	Bicycle Safety
Pedestrian crossing improvements:						
11th to Cesar Chavez: Division Green Street Main Street Project improvements including storm water elements, curb extensions, and added on-street parking	Funded (PBOT, BES, ODOT) 2013 construction start	\$13,000,000		х	Х	
42nd: curb extensions and median island	Funded (PBOT, BES) 2013 construction	\$186,000	Х		Х	
Marked crosswalks and median islands at or near 64th & 68th, design to-be-determined by planning process	Not Funded (PBOT)	\$60,000		Х	Х	
87th: new pedestrian signal	Complete (PBOT)	\$250,000		Х	Х	Χ
I-205/MAX Station: Rapid Flash Beacon atgrade plus undercrossing	Complete (PBOT, TriMet)	\$20,000		Х	Х	Х
I-205/MAX Station: Multi-Use Path undercrossing	Funded undercrossing (ODOT) 2013 construction	\$550,000			Х	Х
101 <sup>st</sup> , 106 <sup>th</sup> /107 <sup>th</sup> , 110 <sup>th</sup> , 115 <sup>th</sup> , 124 <sup>th</sup> /125 <sup>th</sup> , 129 <sup>th</sup> /130 <sup>th</sup> , 132 <sup>nd</sup> , 139 <sup>th</sup> , 152nd, 157 <sup>th</sup> , 165 <sup>th</sup> : crossing improvements	Funded (PBOT, ODOT) 2014 construction, included in sidewalk infill projects below	\$0		Х	Х	Х
Countdown Pedestrian Signal Heads installed at every signal	Complete (PBOT)			Х	Х	
Tri-Met & PBOT to conduct pedestrian audit at 82nd	Complete (PBOT, TriMet)	\$0		Х	Х	
Bus stop improvements including seating and supershelters at 82nd	Complete (TriMet)			Х	Х	
Construct new curb ramps:			<u> </u>			
11th to Cesar Chavez	Funded (PBOT, BES) included in \$13M estimate above	\$0		Х	Х	
Cesar Chavez to 98th	Not Funded (PBOT) (assumes 50 ramps need upgrade)	\$200,000		Х	Х	
98th to 174th	Funded (PBOT, BES) included in sidewalk infill below	\$0		Х	Х	
Infill or upgrade sidewalks		1 T -	1		1	1
11th Ave to Cesar Chavez	Funded (PBOT, BES, ODOT) included in \$13M estimate above	\$4,000,000			Х	
98th to 145th (0.54 mi)	Funded (PBOT, ODOT)	\$1,467,000			Х	
148th to 174th (0.51mi)	Funded (PBOT, ODOT)	\$765,000			Х	
Signal improvements at the following high crash inters		1	1	1	1	1
Division/82 <sup>nd</sup> - ODOT to reconstruct signal including curb ramps, sidewalks and access	Funded (ODOT) 2014 construction	\$2,000,000	Х	Х	Х	Х

	management						
	Division/92 <sup>nd</sup> - Add reflective backboards	Not Funded (PBOT)	\$25,000	Х		Χ	
	Division/122 <sup>nd</sup> - New signal constructed 2009;	Not Funded (PBOT)	\$25,000		,		
	add reflective backboards; consider red light camera			X	Х	Х	Х
	Division/148 <sup>th</sup> - add 12" signal heads with reflective backboards; consider red light camera	Not Funded (PBOT)	\$25,000	Х		Х	
	Division/162 <sup>nd</sup> - rebuild signal with new strain poles and span wires, add 12" signal heads and reflective backboards	Not Funded (PBOT)	\$250,000	Х		Х	х
	adway conversion to 3-lanes, including restriping, dian islands, signal upgrades, bike lanes (60th-h)	Not Funded (PBOT)	\$500,000	Х	Х	Х	х
Pro	pposed bikeway improvements (98th-128th)	Funded (PBOT, ODOT)	\$45,000				Х
	nduct speed zone investigation to reduce posted eed from 60th to 82nd	No funding required (PBOT)	\$0	Х	Х	Х	Х
	velopment review to apply access management nciples to new development	Standard PBOT protocol (PBOT)	\$0	Х		Х	х

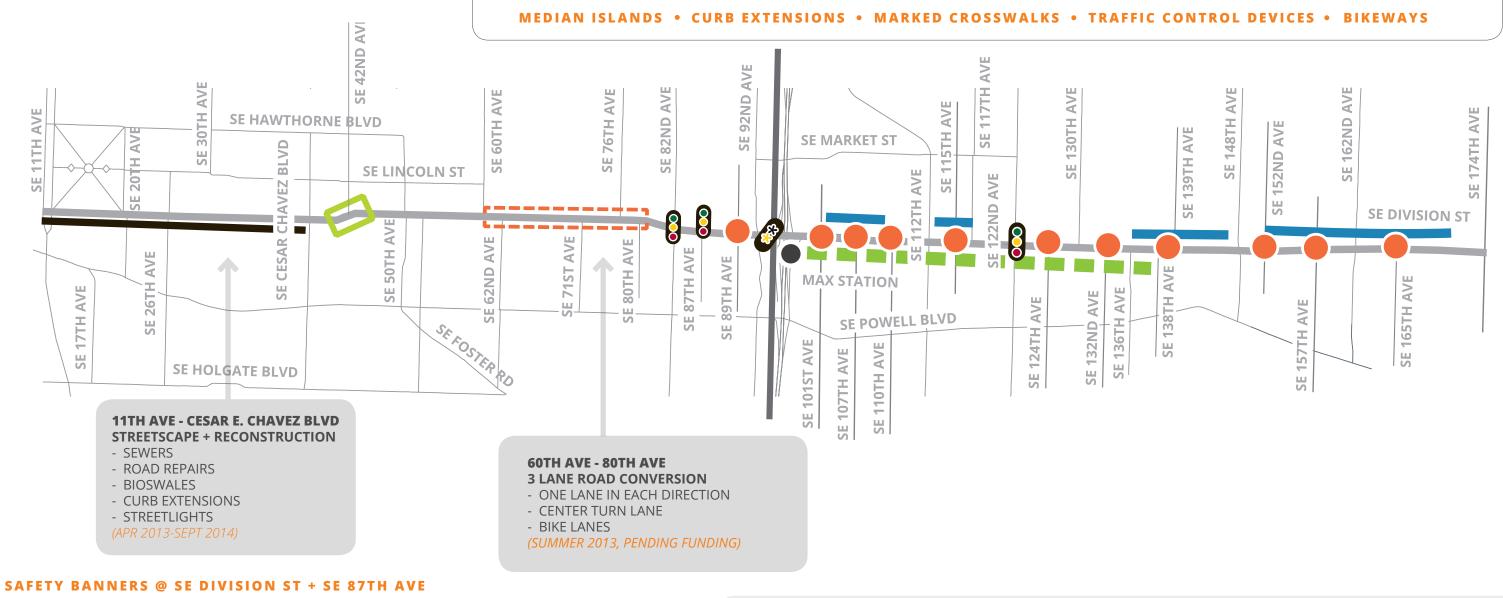
Education Actions	Funding Status	Safety Issue Addressed			
		Driver Safety	Transit Access	Pedestrian Safety & Access	Bicycle Safety
Encourage traffic law violators to attend "Share The Road" safety classes	Funded (Legacy Emanuel Hospital, MultCo Courts, PPB)	X			
Install banners and billboards with rotating safety messages	Complete (PBOT)	Х			
"Portland Walks Be Safe" training and "Every Corner is a Crosswalk" training with translation as necessary	Funded (PBOT)	Х		Х	
Beacon Buddies Video (show at Movies in the Park and at all Portland area DMV offices)	Funded (PBOT)				
Hand out fliers on how to use RRFB's at new installation locations	Funded (PBOT)	X	X	X	
Partner with TriMet's "See and Be Seen" campaign	Funded (PBOT, TriMet)	^	X	X	Х
Conduct Young Driver Improvement / Graduated Drivers Licensing classes for young drivers and their parents	Funded (Legacy Emanuel Hospital)	Х	Х	Х	х
Oregon Impact and Portland Police host "Operation Prom Night" at high schools each spring	Funded (Oregon Impact, PPB)	Х			
Send PBOT "Vegetation Obstructions" flyers to businesses/property owners where overgrowth is problematic	Funded (PBOT)	Х		Х	Х
Distribute flyers (produced by ODOT) about enforcement of aggressive driving	Funded (PBOT)	Х			
Host Sunday Parkways events along Clinton and Lincoln and at Mount Tabor Park	Completed (PBOT), August 2012	Х		Х	Х

Provide transportation safety materials for distribution at community events (Powellhurst Gilbert Neighborhood Association)	Funded (PBOT)	Х		Х	X
"Walk Smart" presented to community members (Oregon Walks, Elders-In-Action, Immigrant Refugee Community Organization)	Funded (Northwest Health Foundation)	Х	Х	Х	
Distribute PedPro Units for community and private events	Funded (PBOT)			Х	
"Distracted Driving" and "Texting" ads in high school newspapers	Funded (PBOT)	Х			

Enforcement Actions	Funding Status	Safety Iss Address			
		Driver Safety	Transit Access	Pedestrian Safety & Access	Bicycle Safety
Increase enforcement for violation of Oregon crosswalk laws with Crosswalk Enforcement Actions at:					
Division/58 <sup>th</sup> , 9/4/08	Complete (PBOT, PPB)	Х		Х	
Division/35 <sup>th</sup> PI, 11/24/08	Complete (PBOT, PPB)	Х		X	
Division/68 <sup>th</sup> , 7/28/10	Complete (PBOT, PPB)	Х		Х	
Division/142 <sup>nd</sup> , 1/25/12	Complete (PBOT, PPB)	Х		Х	
Division/58 <sup>th</sup> , 9/26/12	Complete (PBOT, PPB)	Х		Χ	
Targeted police patrol in school zones each September – Encourage violators to attend "Share the Road" safety classes.	Funded (PPB)	Х		X	Х
Utilize photo radar	Funded (PPB)	Х			
Enforcement of aggressive driving (speed, lack of attention, DUII)	Funded (PPB)	Х			
Consider installation of red-light cameras at high crash intersections	Funded (PPB)	Х			
Conduct distracted driving missions	Funded (PBOT, PPB)	Х			

### HIGH CRASH CORRIDOR SAFETY MAP SE DIVISION STREET









SEPT-NOV 2011 + AUG-SEPT 2012



Sidewalk construction (JAN 2013-DEC 2013) Proposed bikeway improvement (2015)

Division streetscape + reconstruction (APR 2013-SEPT 2014)

Traffic signal intersection upgrade - 82nd Avenue (2014)

- 87th Avenue (2011)

- 122nd Avenue (2009)

Pedestrian + stormwater improvement (OCT 2012)

3 lane road conversion (SUMMER 2013, PENDING FUNDING)

Crossing improvements (2013 - 2015)

Rapid flash beacon (FEB 2013)