

**ADOPTED**

**Top Ten Outcomes and Measures for North Williams Avenue Traffic Operations Safety Project**

The following list was developed by the Outcomes Working Group  
as a recommendation to the Stakeholder Advisory Committee.

It was adopted without changes at the SAC meeting on February 7, 2012

<b>What outcome is desired?</b>	<b>What changes will we assess?</b>	<b>How will we measure the change?</b>	<b>Notes</b>
Increase convenient pedestrian opportunities to safely cross Williams	Are there more gaps in vehicle flow at key crossing points?	Engineering analysis	
	Do motorists and bicyclists yield to crossing pedestrians more often?	Observation	
	Do pedestrians have shorter distances to cross at key crossing points?	Calculation	
	Are pedestrians more satisfied?	Intercept survey	
	Do more pedestrian crossings fall below the threshold for improvements?	Engineering analysis	Threshold is based on a report from the National Cooperative Highway Research Program called "Improving Pedestrian Safety at Unsignalized Crossings" that is used to evaluate selected engineering measures to improve pedestrian safety.
	Have the number of crosswalk enforcement actions increased?	Count	Possible target is one action per year.
Mitigate conflicts between all modes	Do users feel potential conflicts have been reduced?	Intercept surveys of all traveling modes, pedestrian, bicycle, transit, and auto	

What outcome is desired?	What changes will we assess?	How will we measure the change?	Notes
Reduce motor vehicle speeds	Are motor vehicles traveling more slowly?	Observation	Possible target 85 <sup>th</sup> percentile speed is 25-27 mph.
Improve visibility of pedestrians	Have sight distances for motorists to see pedestrians and pedestrians to see motorists increased at key crossing points?	Engineering analysis	
	Have lighting levels improved at key crossing points?	Measure lumens in crosswalks before and after	Take baseline lumen levels at key intersections now.
	Has there been an increase in safety education outreach to motorists, bicyclists and pedestrians regarding pedestrian rights, responsibilities and safety?	Count the outreach efforts	This item suggests a targeted campaign of safety education outreach efforts. Possible target locations include: Boise School, Humboldt School, King School, Tubman Academy, North Portland Library, PCC Cascade, bicycle shops, street fairs, public art project, social service agencies. Efforts could include in-person training combined with print materials.

Reduce the risk of cyclists being struck by opening vehicle doors	Has the distance between the typical bicyclist travel path and the average car door swing increased?	Calculation	3' is generally accepted as the safe distance between the center of the typical cyclist path and the edge of an 8' parking lane (11' from the curb face), although case can be made for 5'.
	Has the number of parallel parking spaces been reduced?	Count	A change in parking orientation (such as to diagonal parking) or other reduction in total parallel parking spaces would have the side effect of reducing the risk of dooring.
Create opportunities for people bicycling to pass other cyclists without entering the motor vehicle travel lane	Is the bike lane wide enough for one cyclist to pass another in it?	Measurement before and after	A bike lane (or combination of bike lane and buffer) with minimum width of 7' or preferred width of 8' allows cyclists to pass other cyclists within the bike lane.
	Is a bike passing lane available?	Count	
	How often is the bike lane obstructed during the 4-6 pm peak?	Observation	
	Are cyclists entering the motor vehicle lane to pass one another?	Observation	
Manage conflict between bus and bicycle operations	Are there fewer cases where bus and bike operations interact in ways that create a sense of risk or inconvenience?	Survey bus drivers/transit agency; survey cyclists	It's OK to have smaller sample sizes here because if we get <i>enough</i> users from each group, we will have gotten the number of groups necessary to have a statistically significant sample. Should have before and after data.

Reduce all crashes in the N Williams corridor	Are there fewer crashes?	Count	Look up historic data to average crashes over a period of time.
	Do crash factors predict fewer crashes?	Engineering analysis	Crash Modification Factors are used to predict the change in crashes after a modification, based on many traffic studies. More information at <a href="http://www.cmfclearinghouse.org/about.cfm">http://www.cmfclearinghouse.org/about.cfm</a> .
Maintain or improve ease of transitions bicyclists making turns	Does an “expert panel” agree that transitions are acceptable?	Group interview	
	Are cyclists using safe techniques to transition to turns?	Observation	
Maintain access and operability for TriMet LIFT vehicles and private lift-equipped vans	Are providers and users satisfied?	Survey TriMet operations staff; survey LIFT customers; survey neighborhood agencies that serve LIFT customers; survey private lift-equipped van users	

For more information on the North Williams Avenue Traffic Operations Safety Project, contact Project Manager Ellen Vanderslice, 503-823-4638, or [ellen.vanderslice@portlandoregon.gov](mailto:ellen.vanderslice@portlandoregon.gov).

*The Portland Bureau of Transportation (PBOT) fully complies with Title VI of the Civil Rights Act of 1964, the ADA Title II, and related statutes and regulations in all programs and activities. To ensure equal access, PBOT will make accommodations on request. Contact the Title VI Coordinator at Room 1204, 1120 SW 5<sup>th</sup> Ave, Portland, OR 97204, or by telephone, 503-823-5815, City TDD 403-823-6868, or use Oregon Relay Service: 711.*