

Data Use Case Study: Fauntleroy Way SW

Thanks to funding made available by the Bridging the Gap levy, SDOT repaved Fauntleroy Way SW in 2009. The repaving project provided an opportunity to reconfigure the roadway using the Complete Streets approach, accommodating freight, transit, pedestrians, bicycles and motor vehicles. This included re-striping from four travel lanes to one lane in each direction with a left turn lane, a bicycle lane uphill, and a new marked crosswalk and curb bulb.

The changes to Fauntleroy Way SW have improved conditions for all users of the roadway. The number of speeders is down. A new marked crosswalk has been provided in a location where it was difficult to cross. Motor vehicle traffic volume has not declined. While there is some additional delay for motor vehicle drivers, the Complete Streets approach has resulted in some significant benefits for drivers including a reduction in the number of collisions, especially the number of injury collisions.

Project Outcomes

- High-end speeders declined
- Injury collisions declined
- Traffic volume and travel time increased slightly



Collisions

Collisions declined after the rechannelization was completed. The total number of collisions declined 31 percent while the number of collisions involving injury declined 73 percent. Left-turn, cyclist and sideswipe collisions all declined to zero. Collisions involving parked cars declined 50 percent. The only increase noted was the number of incidents involving rear-end collisions.

Collisions										
	Total	Injury	Right Angle	Rear end	Side Swipe	Cyclist	Left Turn	Parked Car		
Before	20.3	7.3	3.7	3	2	.3	2	6.7		
After	14	2	5	6	0	0	0	3		
Change	-31%	-73%	36%	100%	-100%	-100%	-100%	-55%		

Collision data in the before period is average 2005-2008 and average December 2009-December 2010

Speed

After the project was completed, speeding declined. Drivers traveling at 40 mph or faster declined 7 percent northbound and 17 percent southbound. Reducing the number of top-end speeders can have a significant benefit for pedestrians. According to a 1987 report by the U.K Department Transportation, a pedestrian struck by a motor vehicle traveling 40 miles per hour has a 15 percent chance of surviving the event. Reducing vehicle speed to 30 mph increases the chance of survival to 55 percent.

Speed

Fautleroy Way SWE at SW Brandon Street					
		85 th Percentile Speed	Percent Speeding	Top-end Speeders	
Before	Northbound	38.8	90%	13%	
	Southbound	39.6	90%	18%	
After	Northbound	38.6	90%	12%	
	Southbound	39.0	76%	15%	
Combined Change		-1%	-7%	-13%	

Before data collected in October, 2008. After data collected in February 2011

Volume

Traffic volume increased slightly after the rechannelization was completed. Average weekday traffic increased 0.4 percent northbound and 0.3 percent southbound. Total average weekday traffic volume remained roughly 17,500 vehicles.

Volume

Fauntleroy Way SW at SW Edmunds Street

	Average Daily Traffic	Weekday Traffic	Peak Morning	Peak Afternoon
Before	8,250	8,802	1,021	497
Northbound				
Southbound	8,216	8,797	378	977
After	8,268	8,837	998	537
Northbound				
Southbound	8,240	8,828	423	940
Change	0.2%	0.3%	1.5%	0.1%

Before data collected in May, 2008. After data collected in May, 2011

Travel Time

Travel time along the corridor increased slightly for motor vehicles. This increase varied by direction and time of day. In the southbound direction, the increase in travel time was four seconds in the morning and 76 seconds in the afternoon. Northbound the increase in travel time was 45 seconds in the morning and five seconds in the afternoon.

Morning Peak Travel Time

Alaska to California	2009	2011
Northbound	2 min, 52 sec	3 min, 37 sec
Southbound	2 min, 51 sec	2 min, 55 sec

Afternoon Peak Travel Time

Alaska to California	2009	2011
Northbound	2 min, 34 sec	3 min, 39 sec
Southbound	2 min, 46 sec	3 min, 40 sec