SE Spokane Green Street Bicycle Boulevard Project SE Spokane Street between SE 19th Avenue and SE 6th Avenue Portland, Oregon

Project Type:	Green semi-diverter traffic barrier with stormwater management on existing residential street designated as a bicycle boulevard.	
Technology:	Stormwater curb extension semi-diverter	
Major Benefits:	 The curb extension captures runoff from 7,000 square feet of paved surfaces and has a surface area of 282 sq.ft. It treats and infiltrates most of the runoff it receives, providing volume and flow control and water quality benefits. Runoff is managed onsite and is directed to one of the City's sumps. Project includes ADA compliant curb ramps, pedestrian median refuge and striped crosswalks. Leverages other traffic safety investments on the street including two traffic channelizer features at SE 15th and SE 7th; pedestrian refuge islands at SE 17th, and; additional traffic calming. 	
Cost:	The total project cost including project management, design and	
	construction was \$141,000. The total cost of the stormwater management features (including project management, design and	
	construction) was \$50,000.	
Constructed:	November-December 2009	
Maintenance:	The City of Portland maintains this facility.	

Project Summary





Before

After

Other Leveraged Traffic Safety Investments



Channelizer Island at SE 7th Avenue



Channelizer Island at SE 15th Avenue



Additional Traffic Calming



Pedestrian Refuge Islands at SE 17th Avenue

Project Components

The SE Spokane Green Street feature at SE 13th Avenue is a 282 square foot unlined vegetated curb extension. Stormwater runoff from the west side of SE Spokane drains into an inlet on the west side of the facility; stormwater runoff also can drain into a metal grate inlet closer to the intersection on the southeast portion of the facility.

An existing storm sewer inlet located in the new facility was retained. It serves as an overflow outlet. The overflow outlet feature is a typical behive dome grate. The top of the inlet is 2 inches below the top of the existing sidewalk northeast of the overflow outlet.

Budget

The total SE Spokane Green Street Bicycle Boulevard (sometimes called a Neighborhood Greenway) project budget was \$141,000; \$50,000 provided by an Innovative Wet Weather grant through the Bureau of Environmental Services and the remainder provided through the Portland Bureau of Transportation's Affordable Transportation Fund. Table 1 provides a cost summary organized by project elements phase. Because the intersection treatment at Southeast Spokane Street and 13th Avenue also required a median barrier, striped crosswalks, signage and pavement work on SE 13th – project costs beyond the green facility were funded by the Bureau of Transportation. The overall cost of the green semi-diverter was approximately \$53,000 including curb ramp work. The cost of planting brings the total cost to approximately \$56,000.

Project Element	Cost
Green semi-diverter / median barrier / striped crosswalks & signage	\$75,000
Two pedestrian refuge islands / striped crosswalks & signage	\$34,000
Four Channelizing Islands / pavement marking & signage	\$20,000
Speed Bump infill (5)	\$12,500
Total	\$141,500

Table 1: Project Cost Summary by Element

Project Phase	Cost	
Design	\$23,495.12 (includes concept design, work	
	orders, civil design and supervision)	
Public Involvement	\$5,792.49 (community meetings, notification,	
	project coordination and community celebration)	
Construction (BOM)	\$109,008.16 (2 pedestrian refuge islands, 4	
	channelizing islands, speed bump infill, curb	
	ramps, stormwater facility)	
Planting (Parks Horticulture Services)	\$ 3,271.49	
Construction Management	\$223.32	
Total \$141,790.58		

Table 2: Project Cost Summary by Phase

Successes and Lessons Learned

The facility has functioned properly since installation. The overflow appears to function well, and stormwater in the facility is infiltrating within 24 hours. The facility will be watched carefully to ensure it continues to drain well.

Because the facility has a parking lot across the sidewalk from it – parking stops should be included in any future facility with the same surrounding environmental conditions.

Post-construction adjustments include:

• Re-planting of some plants due to a motorist driving through the feature inadvertently from neighboring parking lot.