

# Port of Vancouver Truck Route Study

Conducted by Professor Anne Goodchild and Maura Rowell University of Washington Department of Civil Engineering September 2011

## **Executive Summary**

#### Background

The Port of Vancouver and the University of Washington Civil Engineering Department conducted a Port Truck Study to collect data on route decisions of port industrial and maritime related trucks. The study was conducted with the purpose of gaining a better understanding of truck distribution of our tenants and customers on freight routes used to access the port and I-5. Additional truck data was used from a concurrent traffic count collected by the Regional Transportation Council and Portal, a multi-agency, regional traffic data center housed at Portland State University.

## **Public Outreach**

The port was transparent in reaching out to stakeholders and neighborhoods to communicate why the study was being conducted, and inviting participation and comment. Information on the truck study was provided to the following Neighborhood Associations in the spring of 2011:

- Arnada
- Shumway
- Lincoln
- Carter Park
- Hough
- Fruit Valley
- Northwest

Some neighbors from these associations requested to participate in data gathering and were notified when this effort began, however none of them were able to participate. Signs were placed where data collectors were located that identified the study to the public.

#### Findings

The high density of businesses and freight generators in southwest Vancouver has limited access to Interstate 5 and other local deliveries. Monitoring areas for data collection were based on key intersections to both identify port related and other truck traffic in the area.



UW Truck Data Observation Locations

## **General Southwest Vancouver Truck Routes**

The general truck population is larger than the port-generated population and includes delivery, garbage, recycling and construction trucks, which make many short trips in a local area while port-generated trucks make fewer longer distance trips. The southwest area of Vancouver is highly industrial, jobs-oriented, and generates significant truck traffic.

- General trucks may be using routes for convenience while making deliveries and may not be traveling to I-5
- The general truck population utilizes 39th St. to a greater extent than port generated trucks.
- The general truck population uses Mill Plain Blvd. and 4th Plain Blvd. equally in the westbound direction while Mill Plain Blvd. is preferred in the eastbound direction.
- 4th Plain Blvd. has the highest general truck density throughout the day while Mill Plain Blvd. and 39th Street experience similar truck densities.

## Port Truck Route Choices

- Port-generated trucks prefer Mill Plain Blvd., 4th Plain Blvd., and 39th St in that order and in both east and west directions.
- Port-generated trucks tend to switch from Mill Plain Blvd. to 4th Plain Blvd. as the day continues.

- Both general trucks and port-generated trucks have high levels of activity in the morning and lower levels in the late afternoon.
- The percentage of port-generated trucks in the general truck population ranges from 20 to 50 percent, with an average of 30 to 40 percent.

Time	Eastbound			Westbound		
	Mill	4th	39th +Fruit Valley	Mill	4th	39th +Fruit Valley
8:00	44%	9%	12%	37%	14%	14%
9:00	46%	25%	32%	41%	16%	15%
10:00	47%	22%	21%	39%	22%	10%
1:00	36%	44%	35%	40%	31%	23%
2:00	35%	30%	11%	42%	33%	17%
3:00	32%	19%	14%	43%	29%	25%

Percentage of Port-Generated Trucks in General Truck Population

#### **Port Observations**

- Mill Plain Boulevard remains the most highly used truck route to and from the port.
- Fourth Plain is a significant freight route for both port and general trucks and will remain so in the future.
- The construction of the 39<sup>th</sup> Street overpass provided freight traffic an alternate route to 78<sup>th</sup> Street. Higher use of 39<sup>th</sup> could be attributed to lower grade incline/decline than 78<sup>th</sup> and proximity to routes (i.e. I-5 southbound or east Vancouver locations).
- Port and southwest Vancouver industrial areas have significant developable land, along with significant development in downtown Vancouver and its waterfront. As these areas develop, capacity will become more of an issue, including increased vehicle and truck traffic, which may cause route preference changes.