

# 10 transportation

## 10. Transportation

The Eastgate area developed in an auto-oriented fashion because of its proximity to Interstate 90. The area is changing due to the proximity of an expanding major college, increasing employment, a major transit facility, and improved transit service. These changes offer an opportunity to develop a more walkable, higher density, mixed-use environment with a well-connected roadway, non-motorized and transit network.

### 10.1 INTERSTATE 90

I-90 is the longest Interstate Highway in the United States and is the main east-west corridor that connects eastern and western Washington. During the average weekday I-90 carries approximately 125,000 vehicles per day.

The portion of I-90 from Seattle to Issaquah is part of the region's HOV Core Lanes, the basic system of HOV lanes identified by the Washington State Department of Transportation (WSDOT) and by the Puget Sound Regional Council (PSRC) as part of Vision 2040 Growth Management, Environmental, Economic and Transportation Strategy for the Central Puget Sound Region. Transit service providers operating in the corridor include King County Metro Transit and Sound Transit. King County Metro operates local and regional bus service across the lake connecting Seattle and eastside communities. Sound Transit operates express bus service across the lake connecting regional urban centers such as Bellevue, Issaquah and Renton to downtown Seattle.

Because of its importance as a transportation corridor, congestion on I-90 spans three hours during the morning commute and two hours during the evening commute (between Front Street in Issaquah and Eastgate in Bellevue). In Bellevue, the current Eastgate interchange operates at or near capacity during peak travel times; often resulting in spillover traffic that causes congestion on the surrounding arterial street network. In response to these and other conditions in the corridor, WSDOT embarked on the I-90 Bellevue to North Bend Corridor Study in late 2006 to look at existing and future needs along the corridor.

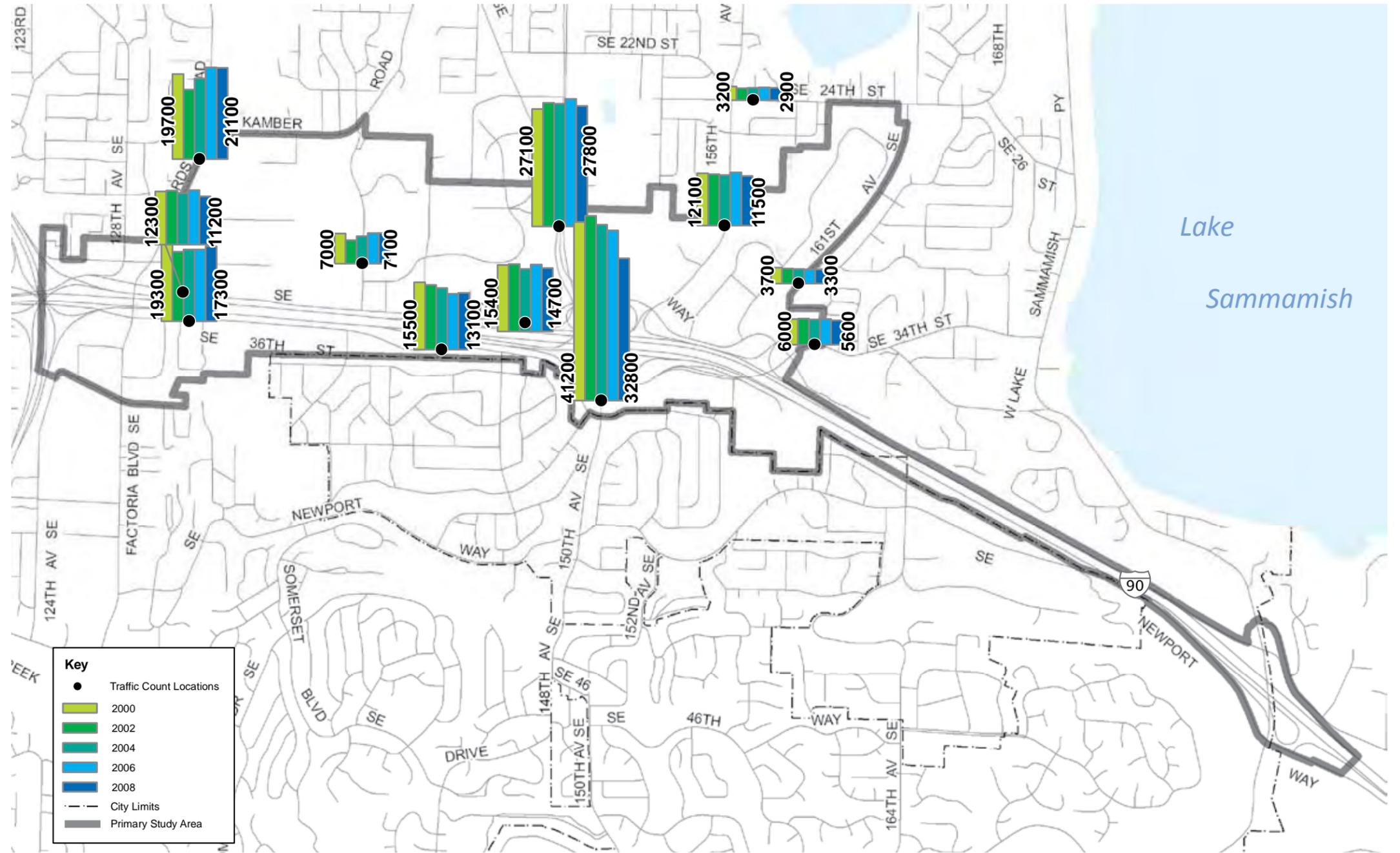


Figure 44. Annual Average Weekday Traffic

The preliminary recommendations from WSDOT's I-90 Corridor Study include: an eastbound auxiliary lane from 150th Avenue SE to West Lake Sammamish Parkway SE; a westbound auxiliary lane from SR 900 to 150th Avenue SE; conversion of existing I-90 HOV lanes to High Occupancy Toll (HOT) lanes; channelization / signal improvements at 150th Avenue SE / SE 37th Street (Intersection 227); Eastgate Way / 156th Avenue SE (Intersection 86); Eastgate Way / 161st Avenue SE; and roundabout improvements on West Lake Sammamish Parkway SE at 180th Avenue SE. When the study is complete in early 2010, WSDOT will incorporate the list of projects into the Puget Sound Regional Council's Transportation Plan and the Washington Transportation Plan. The projects could be implemented over the next 20 years if funding becomes available.

## 10.2 ROADWAY INFRASTRUCTURE

### Arterial Designations

The City of Bellevue has designated an arterial network to provide for vehicle travel throughout the city as shown in Figure 45. This arterial system is divided into three categories.

**Principal Arterials** provide direct routes for long-distance travel within the region, and connect freeway interchanges to major concentrations of commercial activity. The following streets are designated as principal arterials: Richards Road, 148th Avenue SE, and SE Eastgate Way (west of the Eastgate Park and Ride).

**Minor Arterials** connect principal arterials to major commercial and residential areas. The following streets are designated as minor arterials: Factoria Boulevard, 150th Avenue SE, SE 36th Street, SE Newport Way, and Se Eastgate Way (east of the Eastgate Park & Ride).

**Collector Arterials** are two or three-lane streets which carry little through traffic, but collect and distribute traffic within a neighborhood and provide the connection to minor or principal arterials. The

following streets are designated as collector arterials: Kamber Road, 124th Avenue SE, 139th Avenue SE, 142nd Avenue SE, 145th PI SE, 156th Avenue SE, and SE Allen Road.

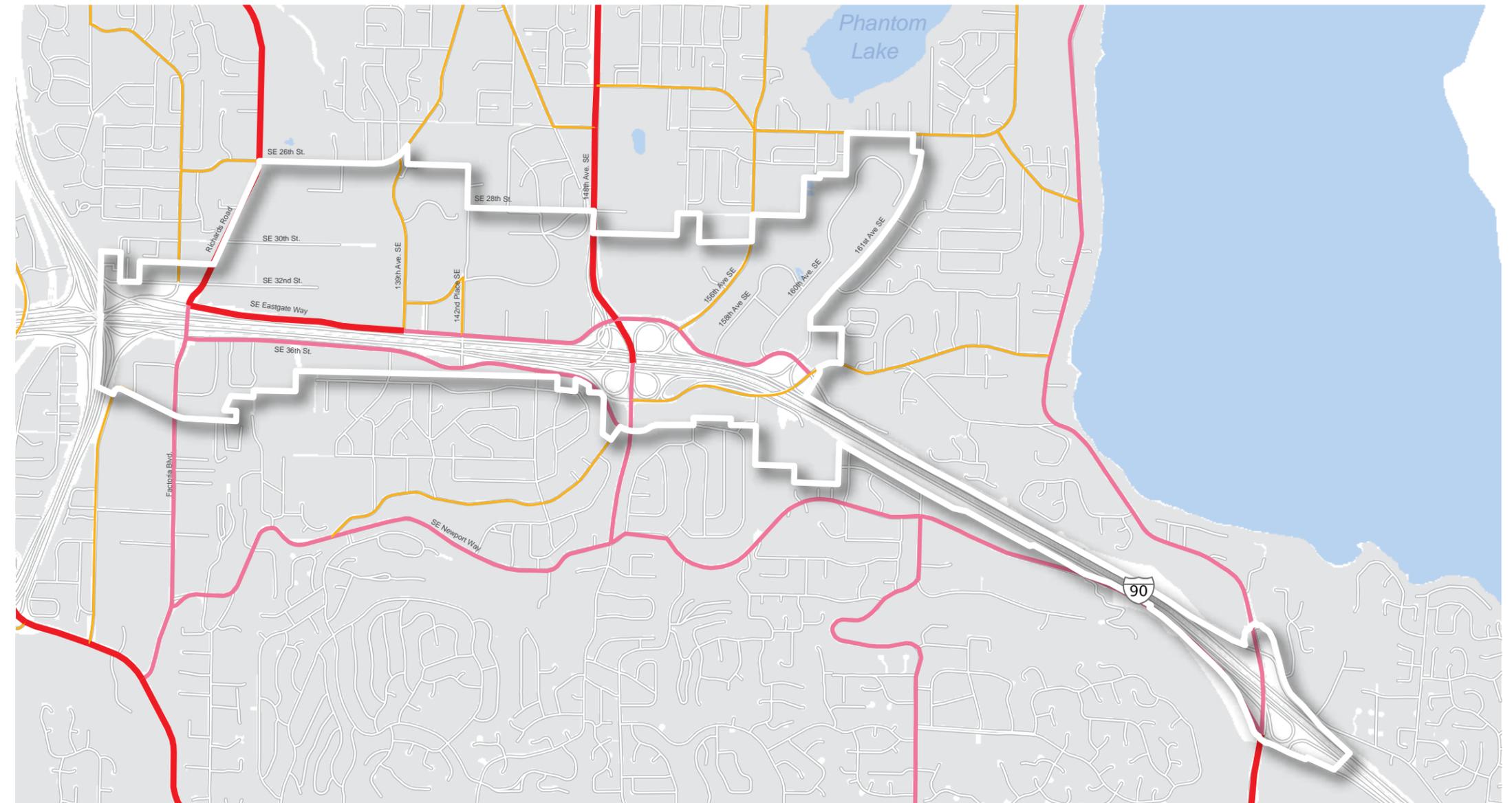


Figure 45. Arterial Classifications



### 10.3 HISTORICAL TRAFFIC VOLUMES

From 2000 to 2008, Annual Average Weekday Traffic (AAWT) at the 11 locations monitored in the study area decreased from 192,300 to 180,000, a 6 percent reduction. As noted in Figure 44, the annual count fluctuations during this time-period remain within this range.

### 10.4 EXISTING ROADWAY LEVELS OF SERVICE

The existing Levels of Service (LOS) were calculated for 19 intersections within the study interest area based on

PM peak hour traffic volumes. Reflected in the table below are 2008 existing outputs for volume/capacity (v/c) Level of Service, seconds of delay, and delay level of service.

### 10.5 NON-MOTORIZED FACILITIES

Providing a range of facility types that appeal to a variety of user groups creates a functional, comprehensive network for pedestrians and cyclists. From shared bicycle facilities and 5-foot-wide sidewalks on quiet streets, to bicycle lanes with 6-foot-wide sidewalks and 4-foot-wide planter strips on arterials, the pedestrian and bicycle network can address the needs of a range of users and be customized to a wide range of locations. On February 17, 2009 the Bellevue City

2008 Existing Roadway Levels of Service

Int #	Address	Cycle (Secs)	V/C	V/C LOS	Delay (Secs)	Delay (LOS)
54	145th Place SE - SE 24th Street	140	0.528	A	36	D
55	148th Ave SE - SE 24th Street	140	0.818	D+	17	B*
56	148th Ave SE - SE 27th Street	140	0.467	A	3	A
57	148th Ave SE - SE 28th Street	140	0.674	B	18	B
82	Richards Rd - Kamber Rd	140	0.595	A	39	D
85	Richards Rd - SE 32nd Street	140	0.628	B	21	B
86	156th Ave SE - SE Eastgate Way	140	0.761	C	56	D
92	161st Ave SE - SE Eastgate Way	140	0.496	A	34	C
101	150th Ave SE - SE Eastgate Way	140	1.017	F	60	E
105	Richards Rd - SE Eastgate Way	140	0.674	B	35	C
133	150th Ave SE - SE Newport Way	140	0.809	D+	47	D
171	142nd Ave SE - SE 36th Street	140	0.583	A	22	C
174	150th Ave SE - SE 38th Street	140	0.883	D-	58	E
204	128th Ave SE - SE 36th Street	140	0.837	D+	50	D
222	128th Ave SE - SE 38th Place	140	0.992	E-		
227	150th Ave SE - I-90 EB Off-Ramp	140	1.067	F	85	F
257	164th Ave SE - SE Newport Way	140	0.388	A	12	B
272	139th Ave SE - SE Eastgate Way	140	0.341	A	21	C
280	139th Ave SE - Kamber Road	140	0.485	A	43	D

Council approved as part of its annual Comprehensive Plan amendment major changes for Bellevue's network of pedestrian and bicycle paths. This section details the number of existing and proposed miles of facility improvements in the study area.

### 10.6 SIDEWALK FACILITIES

There are 11.5 miles of existing sidewalk facilities in the primary study area and 3 miles in the secondary study area. The public sidewalks in the study areas illustrate a variety of materials and landscape treatment. Depending on right of way width, some sidewalks are separated from the traffic lanes by a planting strip, with street trees where adequate space is available. Bellevue's Pedestrian and Bicycle Transportation Facility Plan proposes an additional 1.6 miles of sidewalk facilities in the primary study area and 0.6 miles in the secondary study area.

### 10.7 TRAIL FACILITIES

There are 6.5 miles of existing trail facilities in the primary study area and 0.7 miles in the secondary study area. Bellevue's Pedestrian and Bicycle Transportation Facility Plan proposes an additional 0.5 miles of trail facilities in the primary study area and 0.1 mile in the secondary study area.

### 10.8 OFF-STREET PATHS

There are 0.6 miles of existing off-street path facilities in the primary study area and 0.5 miles in the secondary study area. Bellevue's Pedestrian and Bicycle Transportation Facility Plan proposes an additional 3.4 miles of off-street path facilities in the primary study area and 0.1 mile in the secondary study area. These 3.5 miles are identified as the Mountains to Sound Greenway project (# O-137-N), a priority bicycle corridor improvement in the Bellevue Comprehensive Plan. Additionally, the Comprehensive Plan references this project in the Urban Design Element (Policy UD-53): "Integrate into the designs of frontage roads along the I-90 freeway corridor the Mountain-to-Sound

greenway concept. Give particular attention to multi-use trails, large-scale landscaping, and pedestrian amenities."

### 10.9 BICYCLE FACILITIES

There are .1 miles of existing bike lane facilities in the primary study area. Bellevue's Pedestrian and Bicycle Transportation Facility Plan proposes an additional 3.1 miles of bike lane facilities in the primary study area and 0.1 mile in the secondary study area.

There are also 4.5 miles of existing bike route facilities (shoulders, wide outside lanes, etc.) in the primary study area and 1.7 miles in the secondary study area. Bellevue's Pedestrian and Bicycle Transportation Facility Plan proposes an additional 0.6 miles of bike route facilities in the primary study area and 0.1 mile in the secondary study area.

### 10.10 SIDEWALK ACCESSIBILITY ISSUES

In 2008, the City of Bellevue undertook an in-depth analysis of its system of sidewalks and curb ramps as part of an ongoing effort to make Bellevue more accessible for people with disabilities. The following table is a summary of the ADA accessibility barriers documented in the study area.

Study Area	Curb Ramps	Islands	Sidewalk Changes in Level	Sidewalk Obstructions	Sidewalk Cross Slope (miles)	Sidewalk Grade (miles)
Primary	149	13	849	100	6.2	3.5

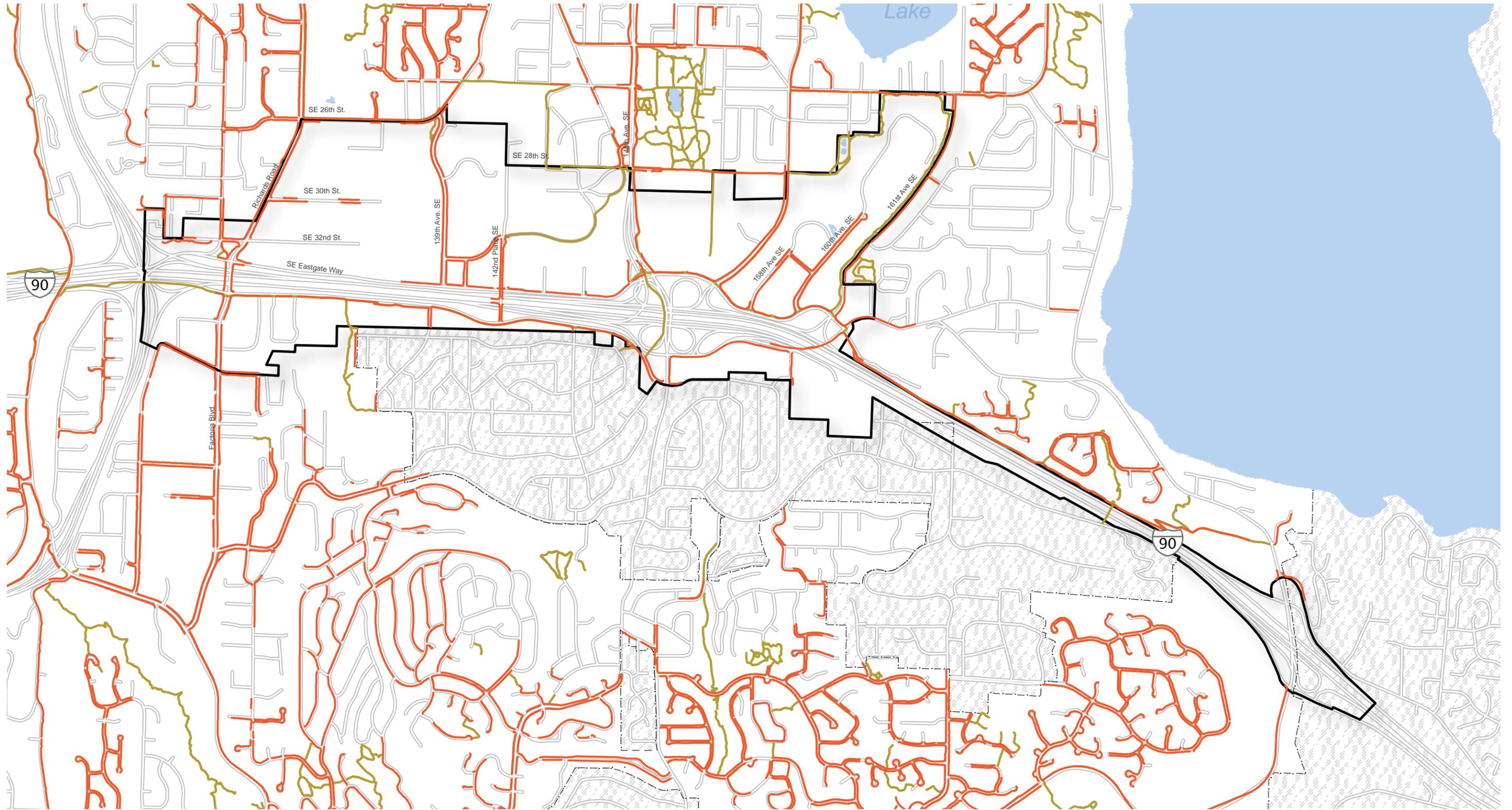
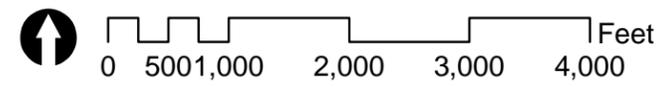


Figure 46. Sidewalks and Trails



- Sidewalks
- Trails

### 10.11 TRANSIT

Transit in the study area uses both local and commuter routes.

### 10.12 LOCAL ROUTES

Local transit service is provided by King County Metro and Sound Transit. Routes 221, 222, 240, 245, 271, 554, 921, 926 provide service from Eastgate to Downtown Seattle, the University District, Downtown Bellevue, South Bellevue, Issaquah, Medina, Mercer Island, Redmond, Kirkland, and other destinations.

### 10.13 COMMUTER SERVICE

In addition to local routes, numerous commuter-orientated bus routes serve the Eastgate area. Most of these routes are designed to serve downtown Seattle via Eastgate en-route from Issaquah. Other routes include: Redmond to Renton and Kent, Issaquah to Northgate via Bellevue and University District, Eastgate to University District via Crossroads and Eastgate to First Hill via Mercer Island.

In addition, there are 'reverse peak' direction routes from downtown Seattle to Issaquah and from Northgate to Issaquah via Bellevue and Factoria. Communities south of Factoria are not provided with direct bus service but can access Eastgate by transfer at Factoria or the South Bellevue Park and Ride. These routes include 210, 211, 212, 214/217/218, 216, 225/229, 247, 272, 555, and 556.

### 10.14 HISTORICAL TRANSIT RIDERSHIP

The following table compares transit boardings and alightings in the study area to citywide ridership trends

Study Area	2000 Ons	2000 Offs	2004 Ons	2004 Offs	2008 Ons	2008 Offs
Primary	803*	1,213*	1,329*	1,020*	3,809	3,493
Secondary	74*	270*	405*	390*	762	647
City	13,449	12,790	12,918	12,414	22,156	21,600

Note: The study area on/off data for 2000 and 2004 might be slightly undercounted because 2008 bus stop location data was used as a reference for this analysis. Primary study area stop numbers from 2000 and 2004 that are no longer tracked in 2008 might not have been captured in the spreadsheet. These discrepancies do not apply to the 2008 data or the citywide statistics.

for 2000, 2004, and 2008.

As indicated, the number of weekday transit patrons in the Eastgate study area increased by approximately 6,351 (ons and offs), from 2,016 in Fall 2000 to 7302 in Fall 2008, a 262% increase. During this same period, Bellevue citywide ridership increased by approximately 17,517 (ons and offs), from 26,239 in Fall 2000 to 43,756 in Fall 2008, a 67% increase. Ridership in the study area has grown significantly since the 2004 opening of the expanded Eastgate Park-and-Ride facility as

a five-story parking garage with 1,646 spaces. The increased parking at Eastgate is more than double the number of stalls at the previous lot. The influence of the Eastgate lot is evident when comparing the 3% decline in citywide transit ridership (ons and offs) from 2000 to 2004 to the 33% Eastgate area ridership increase for the same time-period.

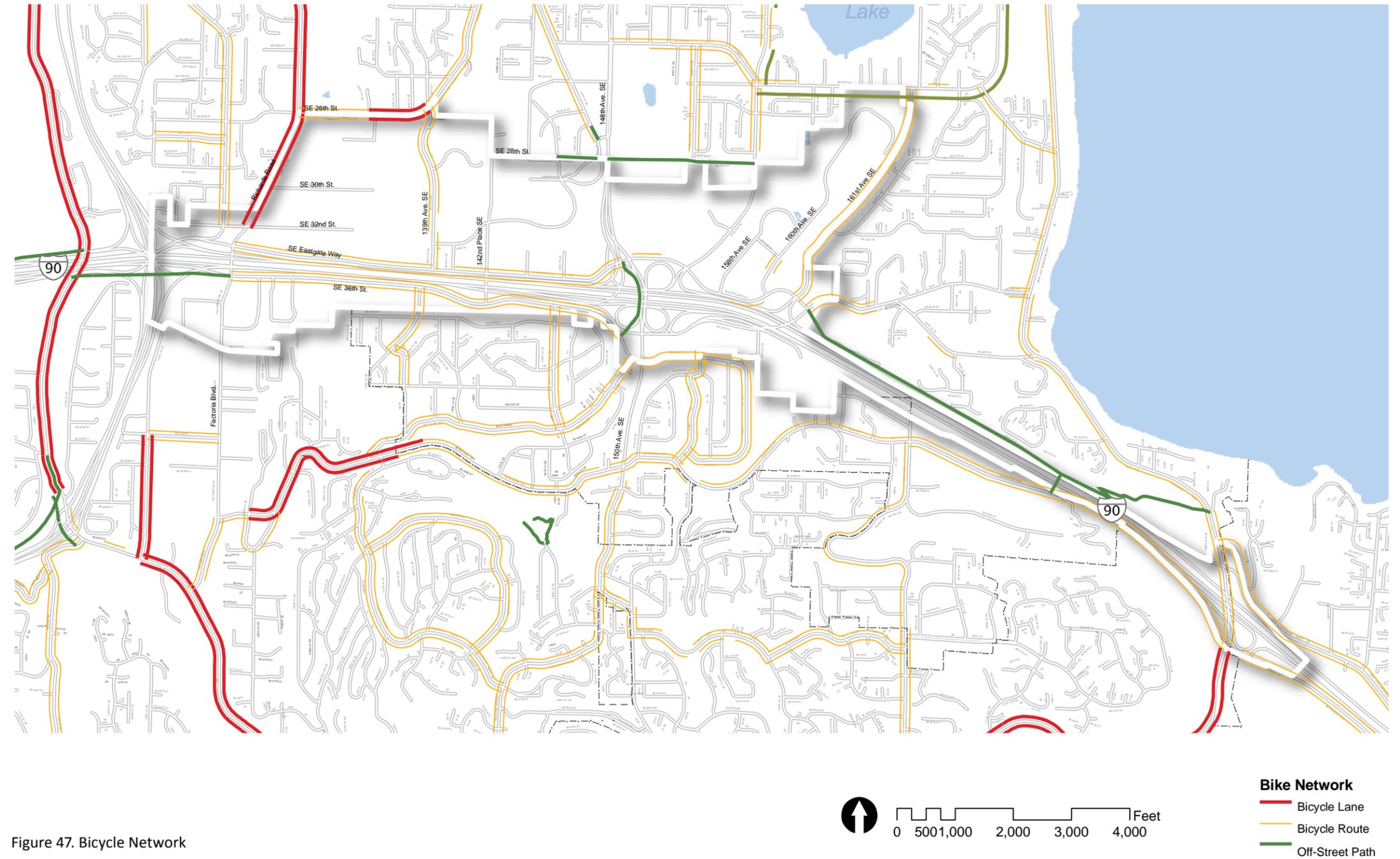


Figure 47. Bicycle Network

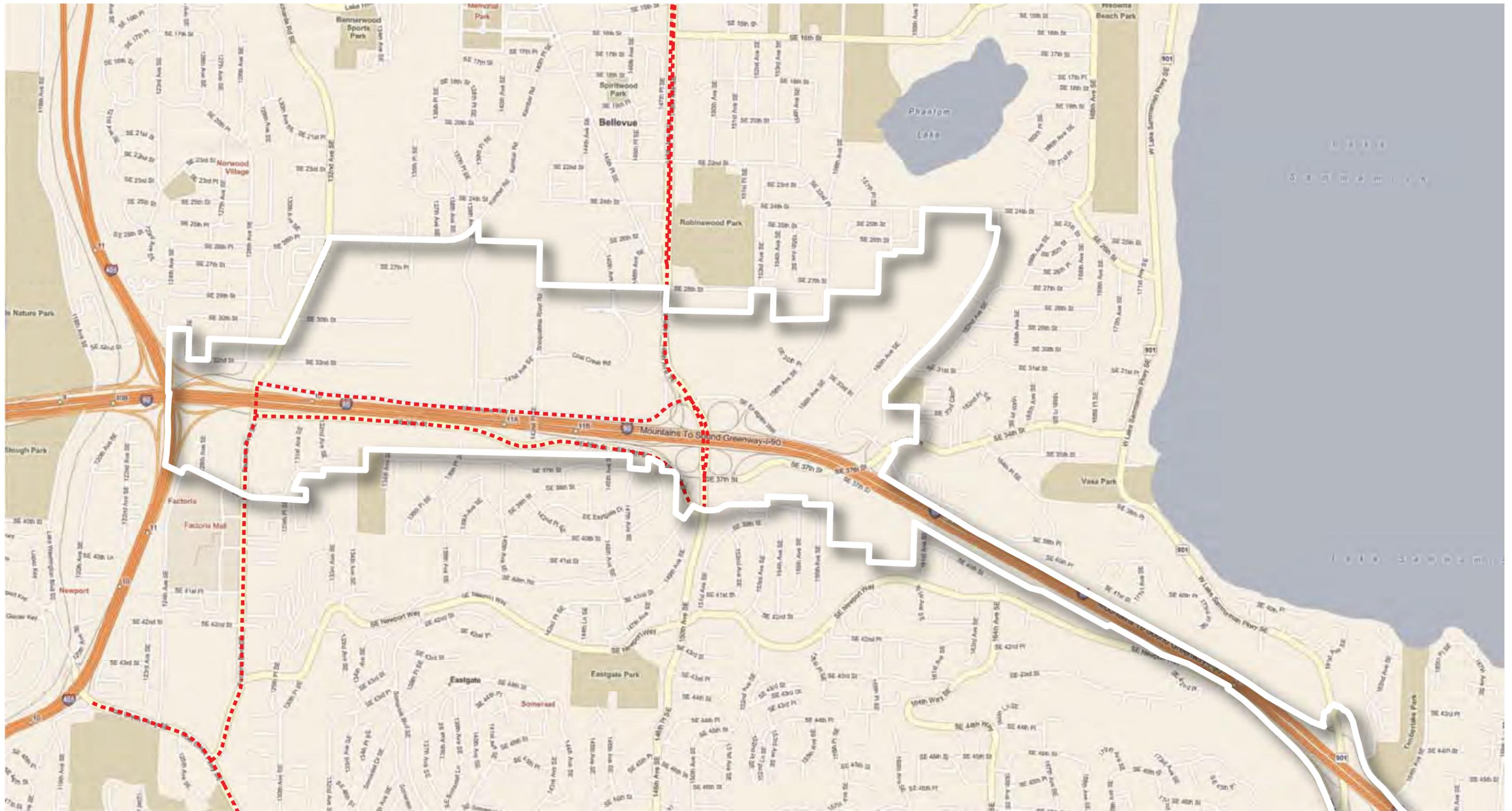
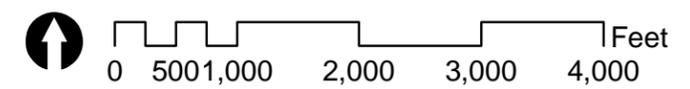


Figure 48. Truck Routes

----- Truck Route



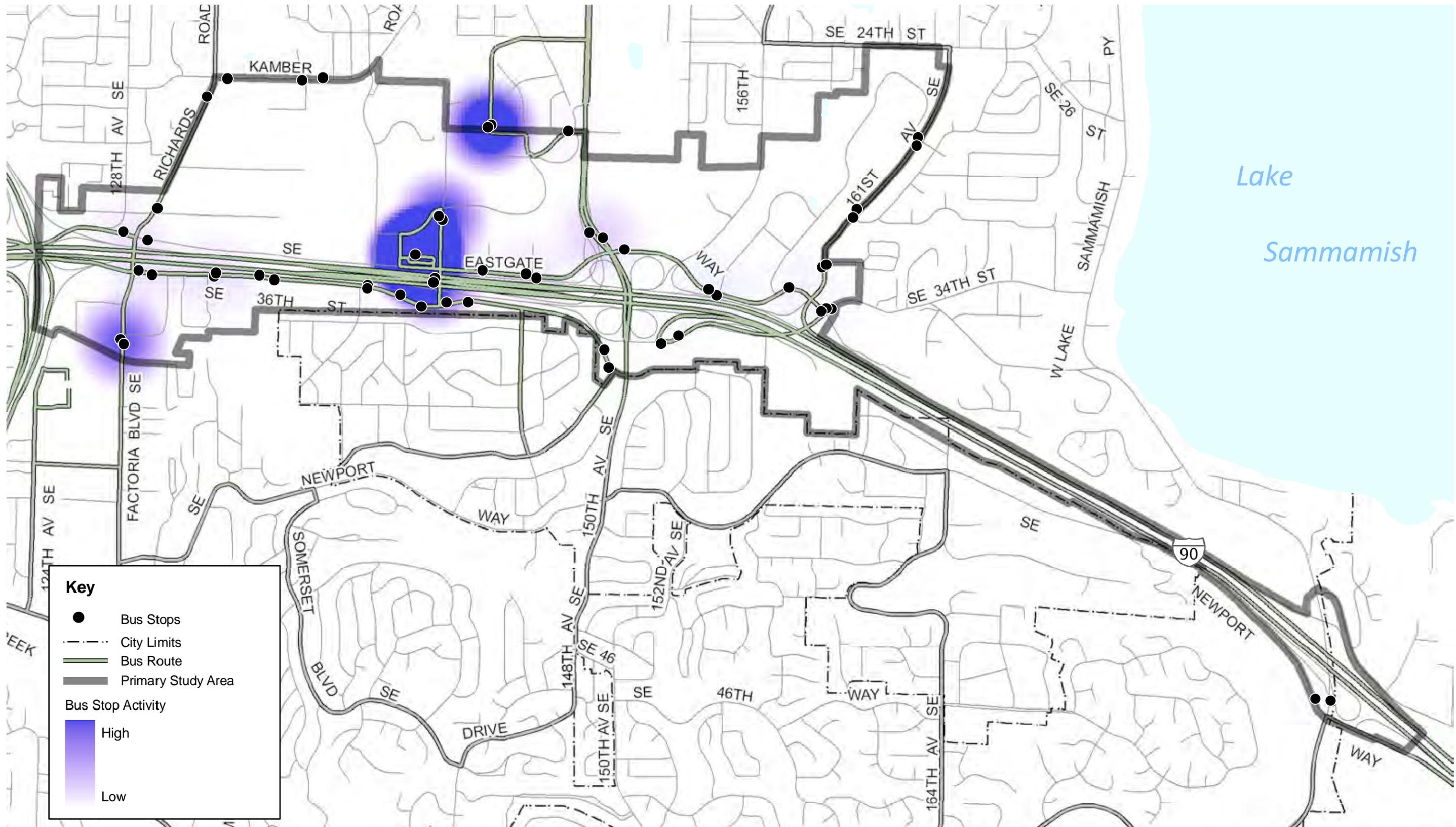


Figure 49. Bus-stops

### 10.15 EXISTING TRANSIT RIDERSHIP

Based on Fall 2008 transit ridership data, an estimated 4,548 boardings and 4,178 alightings take place on an average weekday in the study area. As indicated in Figure 49, the highest concentration of ridership activity in the study area occurs at the Eastgate Park-and-Ride. The following is a summary of areas where transit ridership occurs:

### 10.16 EASTGATE PARK AND RIDE

The Eastgate Park and Ride serves as a major transfer point between multiple Metro and Sound Transit routes. The facility's 1,646 parking stalls operate at approximately 80% capacity. With an estimated 2,168 ons and 1,617 offs per weekday, the P&R accounts for 48% of the boarding activity and 39% of the alighting activity in the study area.

### 10.17 BELLEVUE COLLEGE

The existing route for public transit vehicles through the Bellevue College campus links the North Entry off of SE 24th Street with the East Entry at 148th Ave SE, via Kelsey Creek Road, the roundabout and SE 28th Street. The South Entry is in close proximity to the Eastgate Park and Ride off of SE 32nd Street. With an estimated 1,148 ons and 1,183 offs per weekday, the 7 stops serving the campus account for 25% of the boarding activity and 28% of the alighting activity in the study area.

### 10.18 CITY ARTERIAL STREETS

Factoria Blvd SE, SE Eastgate Way, and SE 36th Street are arterials along which the greatest amount of transit ridership occurs. With an estimated 881 ons and 857 offs per weekday, arterial streets account for 19% of the boarding activity and 21% of the alighting activity in the study area.

### 10.19 EASTGATE FREEWAY STATION

In 2006, WSDOT and Sound Transit built HOV on and off-ramps in the I-90 median connecting to the existing 142nd Place SE bridge. The new ramps provide a more direct connection to the Eastgate Park-and-

Ride for buses, carpools and vanpools traveling the I-90 corridor. Transit and HOVs save travel time by avoiding congested intersections and crossing three lanes of traffic to exit I-90 from the HOV lanes to access the park-and-ride. With an estimated 351 ons and 521 offs per weekday, the bus flyer stops/freeway stations located on the ramps account for 8% of the boarding activity and 12% of the alighting activity in the study area.

