

A variety of existing data were reviewed in developing this Existing Conditions Report. Please refer to Appendix B for a list of the data reviewed and their sources. This chapter discusses Southeast Seattle’s existing transportation infrastructure, including the roadway network, commute trip destination, pedestrian and bicycle network, transit service, freight, traffic operations, collision history, and parking.

## 2.1 Roadway Network

*Conclusions:*

- *M. L. King, Jr. Way S. and Rainier Avenue S. are north-south principal arterials that carry some of the highest traffic volumes in the study area.*
- *Most east-west roadways are collectors or minor arterials.*
- *Reclassification of east- west arterials should be considered given future connectivity needs.*

The existing roadway network in the Southeast Seattle corridor consists of a variety of streets, ranging from two-lane local streets to principal arterials. Two interstate freeways, I-90 and I-5, border the study area to the north and west, respectively.

The City of Seattle’s Transportation Strategic Plan (TSP) defines the transportation network based on the arterial capacity and general use of each street. The streets are defined as follows:

**Interstate Freeways:** Roadways that provide the highest capacity and least impeded traffic flow for longer vehicle trips.

**Principal Arterials:** Roadways intended to serve as primary routes for moving traffic through the city, connecting urban centers and urban villages to one another or to the regional transportation network.

**Minor Arterials:** Roadways that distribute traffic from principal arterials to collector arterials and access streets.

**Collector Arterials:** Roadways that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.

**Commercial Access Streets (Non-Arterial):** Streets that provide access to commercial and industrial land uses and provide localized traffic circulation.

**Residential Access Streets (Non-Arterial):** Streets that provide access to residential land uses and higher-level traffic streets and provide localized traffic circulation.

**Alleys:** Travel ways that provide access to the rear of residences and businesses and are not intended for the movement of through trips. In neighborhoods with continuous alleys, utilities (such as garbage collectors) prefer to use alleys rather than residential or commercial streets.

**Major Truck Streets:** Arterial streets that accommodate significant freight movement through the city and connect to major freight traffic generators.

**Urban Trails:** A network of on- and off-street trails that facilitate walking and bicycling as viable transportation choices, provide recreational opportunities, and link major parks and open spaces with Seattle neighborhoods.

**Bicycle Streets:** An on-street bicycle network that connects neighborhoods and urban centers and villages and serves major intermodal connections.

Figure 7 illustrates the existing roadway network, and this section describes key roadways in the study area.

### **2.1.1 North-South Roadways**

- *15th Avenue S.* is a minor arterial spanning from I-90 to I-5.
- *Beacon Avenue S.* is a minor arterial from I-5 to S. Myrtle Place, at which point its classification changes to collector arterial. The main section of Beacon Avenue S. extends from I-5 to 39th Avenue S. and an additional short section extends from S. Fletcher Street to the city limits at 59th Avenue S. A median separates the northbound and southbound travel lanes from S. Spokane Street to 39th Avenue S.
- *M.L. King Jr. Way S.* is a principal arterial and Major Truck Street that provides key connections between four of the study area's major urban villages. The alignment of Link Light Rail is planned for the median of M.L. King Jr. Way S., and its construction will include improvements to the intersections, sidewalks, and streetscape.
- *Rainier Avenue S.* is a principal arterial that carries the majority of north/south traffic through the corridor.

### **2.1.2 East-West Roadways**

- *S. Columbian Way* is a principal arterial that provides access to I-5 from the Columbia City neighborhood.
- *S. Alaska Street* is a minor arterial that extends further east of S. Columbian Way and also serves the Columbia City neighborhood.
- *S. Orcas Street* is a collector arterial at the west end, between Beacon Avenue S. and M.L. King Jr. Way S. It is a minor arterial for the majority of the corridor, from M.L. King Jr. Way S. to Lake Washington Boulevard S. S. Orcas Street extends across the entire study area, from I-5 to Seward Park.
- *S. Henderson Street* is a principal arterial between M.L. King Jr. Way S. to Rainier Avenue S., and a minor arterial between Rainier Avenue S. and Seward Park Avenue S. This arterial is located in the study area's southern area and serves the Rainier Beach neighborhood.
- *S. Genesee Street* is a minor arterial serving the Mount Baker community.
- *S. Graham Street* is a minor arterial that extends across the entire study area, primarily serving the MLK at Holly (also known as the Othello neighborhood) and Seward Park communities.

- *S. Othello Street* is a minor arterial between M.L. King Jr. Way S. and Rainier Avenue S., and a collector arterial between Rainier Avenue S. and Seward Park Avenue S. This arterial primarily serves the MLK at Holly (Othello) neighborhood.

The following arterials within Southeast Seattle are part of the Olmsted Boulevard System. Design features of a boulevard include abundant landscaping and medians.

- *Lake Washington Boulevard South*: from I-90 to Seward Park Avenue S., this arterial is a Class 1 Olmsted Boulevard.
- *Seward Park Avenue South*: from Lake Washington Boulevard S. to S. Henderson Street, this is a Class II Boulevard (formal landscaping).
- *S. Mount Baker Boulevard*: from Beacon Avenue S. to Rainier Avenue S., this is a Class I Olmsted Boulevard. From Rainier Avenue S. to Lake Washington Boulevard (Lake Park Drive S.) it is a Class II Olmsted Boulevard.
- *38<sup>th</sup> Avenue South*: From S. Hanford Street to S. Spokane Street, this is designated as a Class II Olmsted Boulevard.
- *Beacon Avenue South*: From S. Columbian Way to 39<sup>th</sup> Avenue S., this is a Class II Boulevard (formal landscaping).



## 2.2 Commute Trip Destinations and Mode Choice

*Conclusions:*

- Only nine percent of community members live and work in Southeast Seattle.
- Over 50 percent of Southeast Seattle residents travel north for employment (downtown Seattle, Capitol Hill, Northgate, and further north).
- Major employment areas for Southeast Seattle residents are within the City of Seattle, but residents do travel beyond King County for employment opportunities.

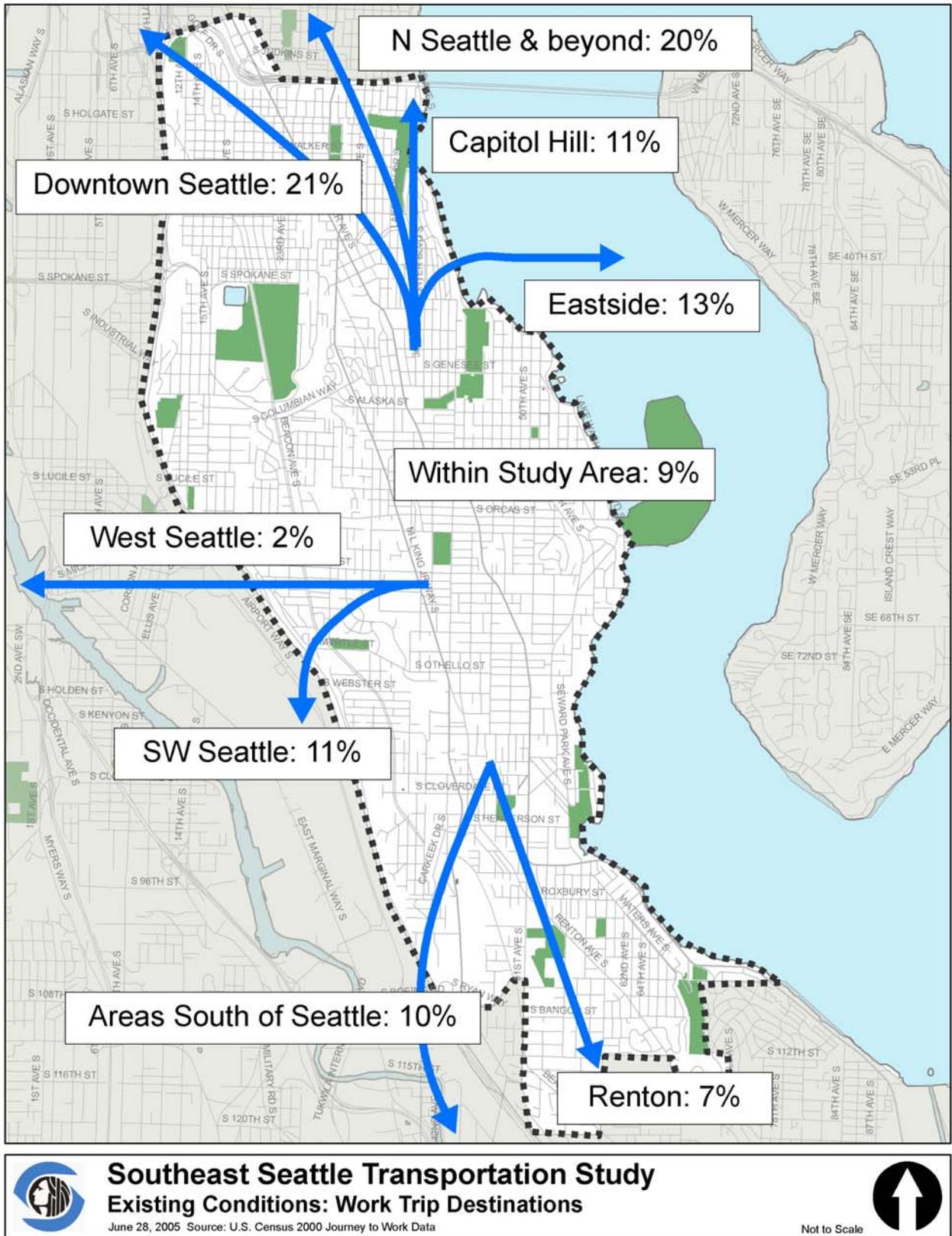
This section describes commute trip travel patterns and mode choice within Southeast Seattle.

Figure 8 illustrates the work-trip destinations for residents within Southeast Seattle. The following patterns can be observed:

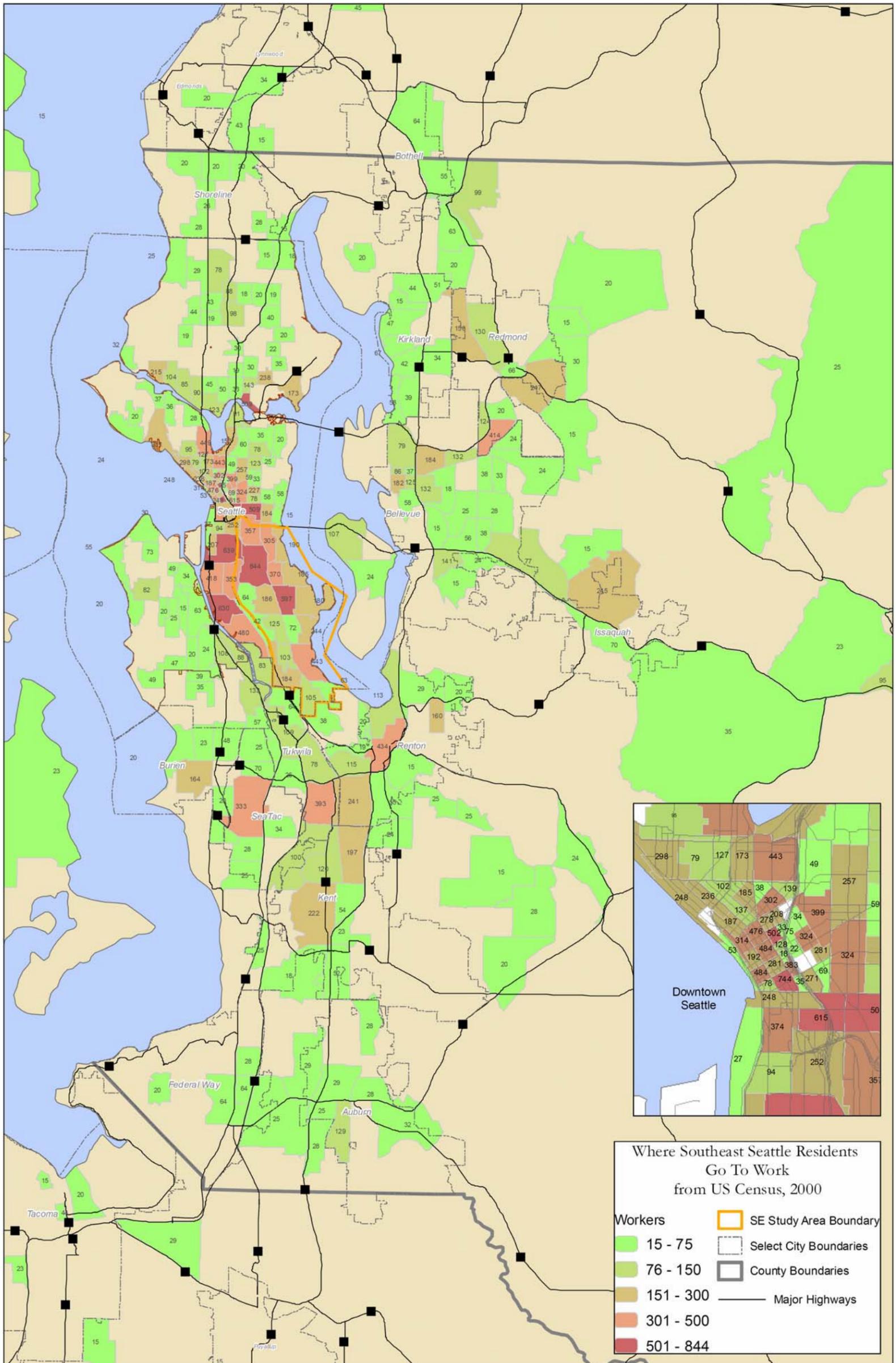
- Only nine percent of Southeast Seattle community members live and work in Southeast Seattle
- Over 50 percent of Southeast Seattle residents travel north (downtown Seattle, Capitol Hill, Northgate, and northward)

Figure 9 shows employment locations for residents in Southeast Seattle within the region of Snohomish, King, and Pierce counties. Most Southeast Seattle residents work within King County and the more dense employment areas are primarily within Seattle. These major employment areas within Seattle include downtown Seattle, Southeast Seattle, Southwest Seattle, and the University District. Other significant employment areas are throughout King County, including the Bellevue/Redmond area, Sea-Tac, Renton, and Tukwila. Some Southeast Seattle residents travel substantial distances to reach employment areas, such as to Woodinville/Carnation/Issaquah to the east, Snohomish County to the north, and Pierce County to the south.

Figure 2: Work-Trip Destination Map



**Figure 3: Employment Areas for Southeast Seattle Residents**





## 2.3 Commute Trip Mode Choices in Southeast Seattle

*Conclusions:*

- SOV, transit, and bicycle use in Southeast Seattle are fairly similar to city-wide rates.
- Carpool use is higher and walking rates are lower in Southeast Seattle than the city-wide average.

The overwhelming mode choice in Southeast Seattle is the single-occupant vehicle (SOV). Southeast Seattle's dependence on SOVs is slightly higher than the entire city's (Table 3), but Southeast Seattle does have a substantially higher percentage of commuters carpooling than the city. Transit and bicycle usage is fairly similar between Southeast Seattle and the city. However, Southeast Seattle residents do not choose walking as a mode as frequently as the rest of the city. This may be because relatively few residents in Southeast Seattle work nearby within the community, so walking to work is not practical.

**Table 1: Percent Use of Transportation Modes (2000)**

	<b>SOVs</b>	<b>Carpool (2+)</b>	<b>Transit</b>	<b>Bicycle</b>	<b>Walking</b>
Southeast Seattle	60	17	17	1	2
City of Seattle	57	11	18	2	7

Sources: Year 2000 Census: [http://www.cityofseattle.net/DCLU/demographics/data\\_census.asp](http://www.cityofseattle.net/DCLU/demographics/data_census.asp),  
[http://www.psrc.org/datapubs/census2000/sf3/jtw\\_places.pdf](http://www.psrc.org/datapubs/census2000/sf3/jtw_places.pdf)

Bicycle, transit, and walking usage are shown in Figures 10, 11, and 12 by census tract.

Figure 4: Bicycle Commuters

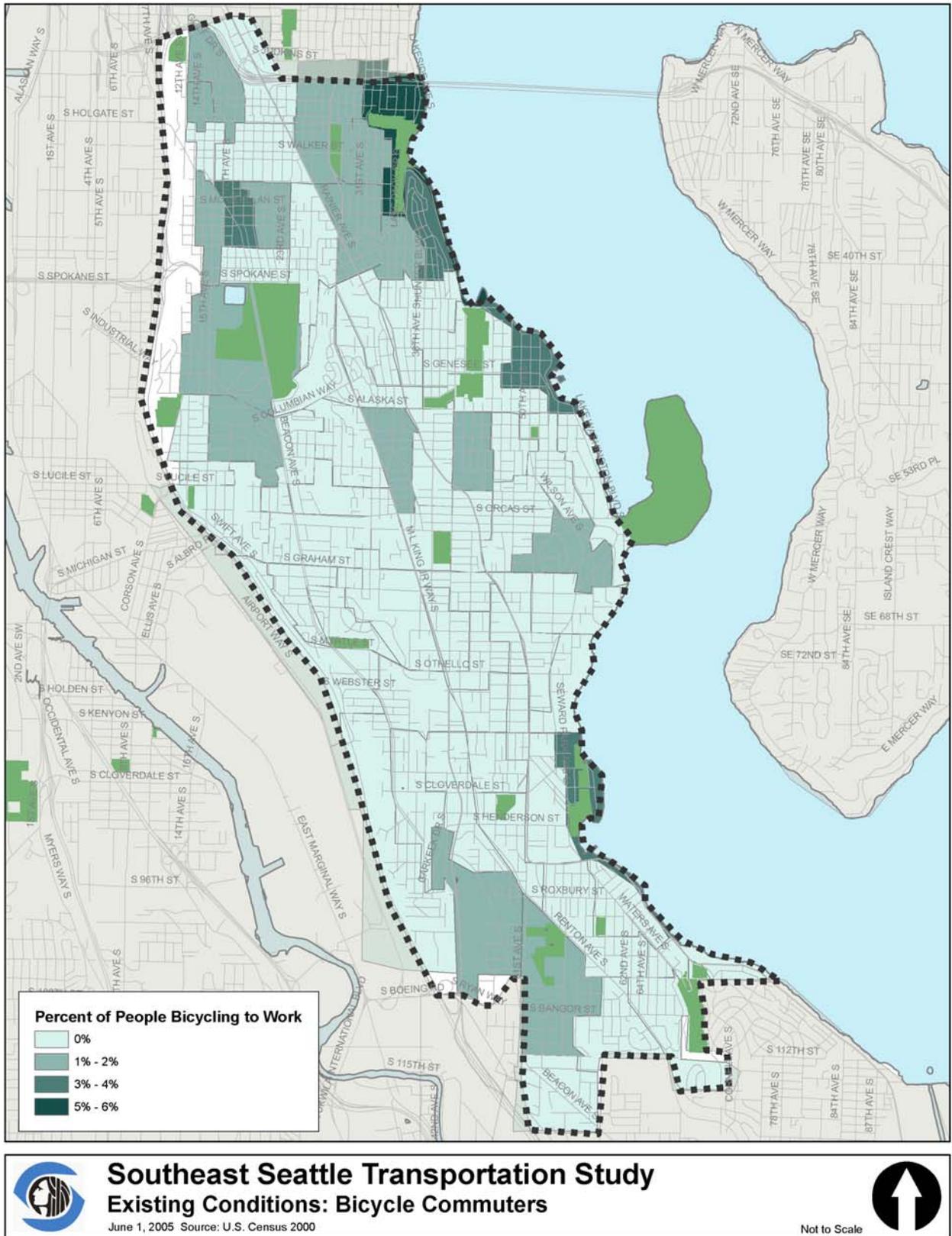


Figure 5: Transit Commuters

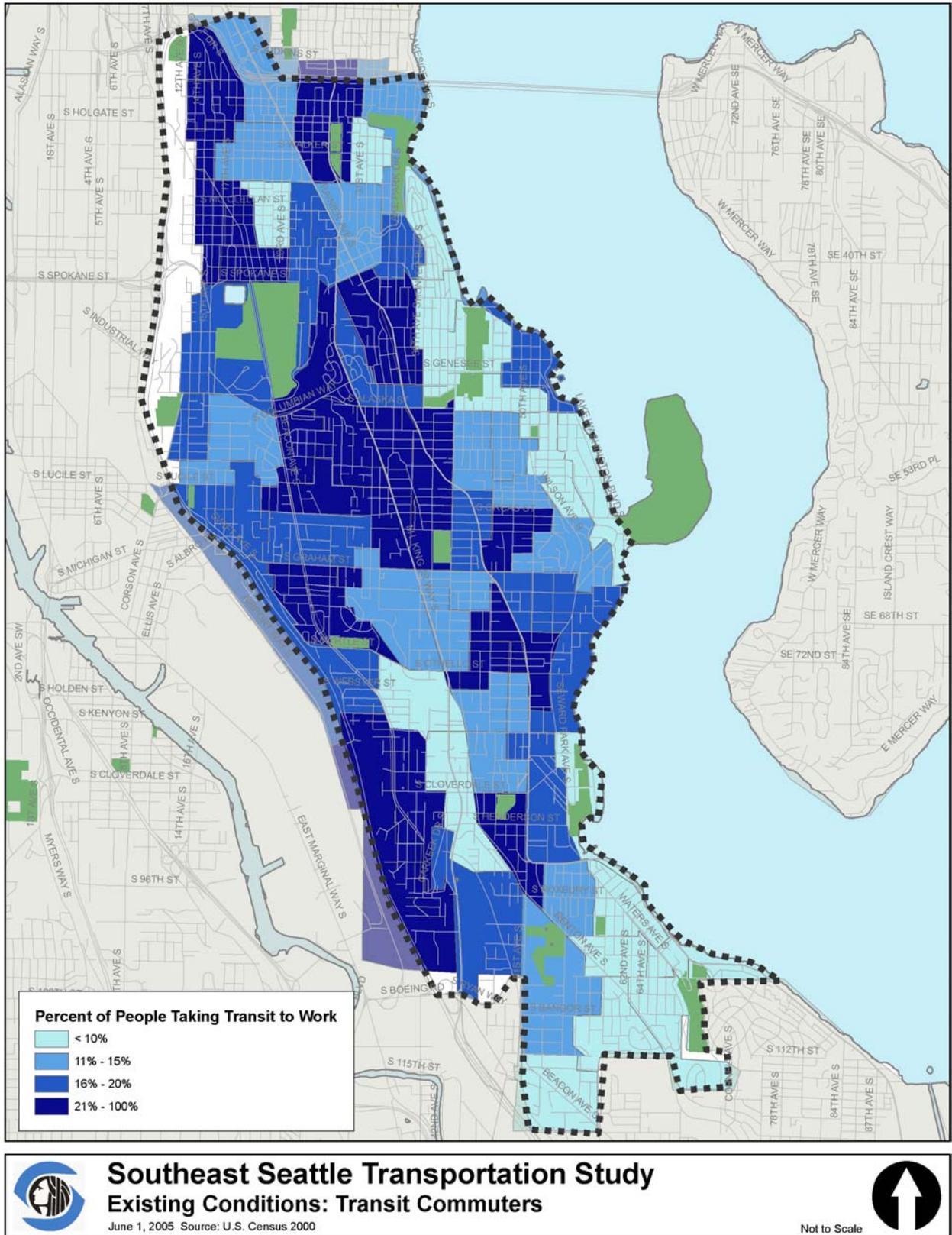
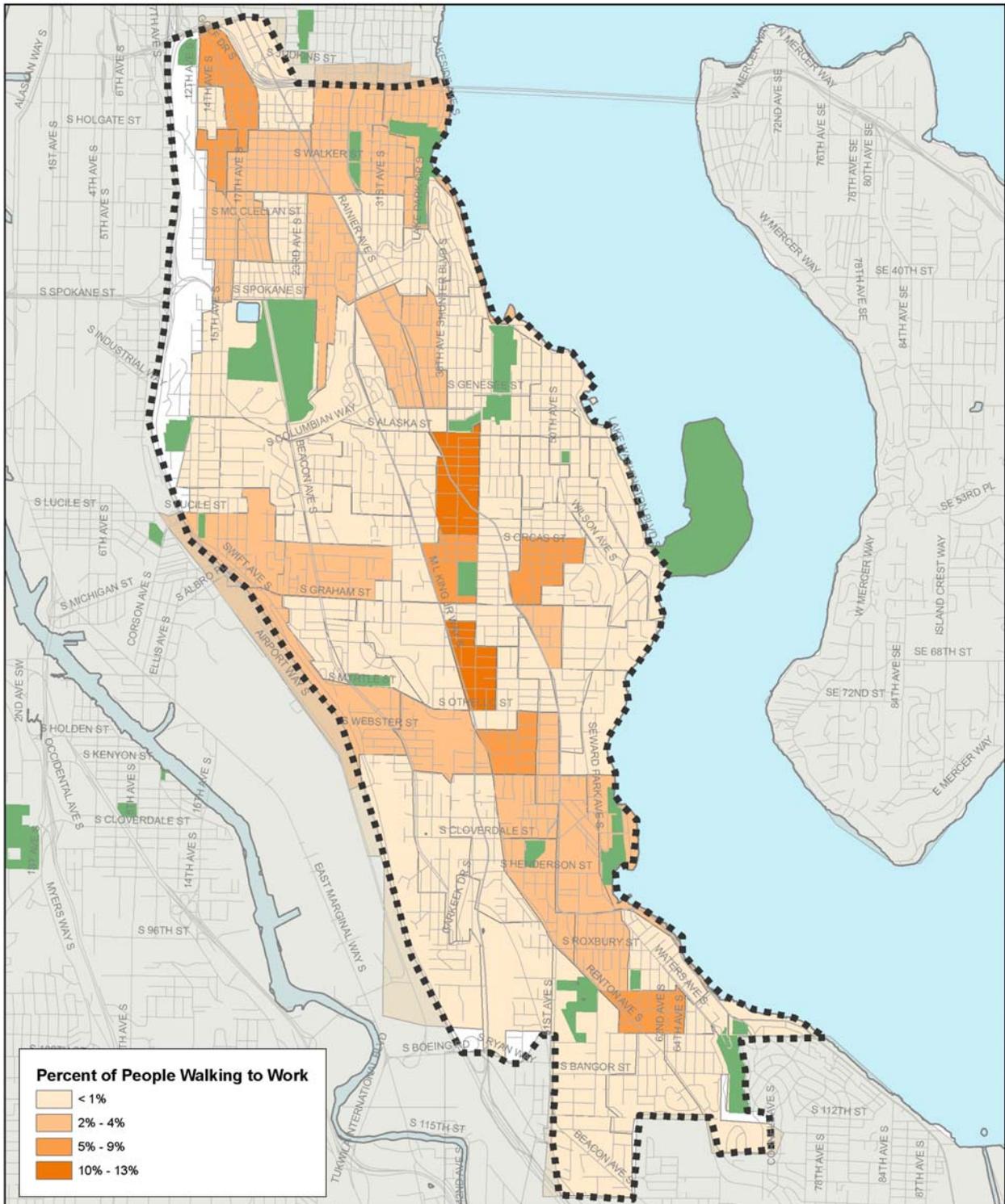


Figure 6: Walk Commuters




**Southeast Seattle Transportation Study**  
**Existing Conditions: Walk Commuters**  
 June 1, 2005 Source: U.S. Census 2000

Not to Scale 

## 2.4 Pedestrian Network and Community Gathering Places

### *Conclusions:*

- *Destinations where the community gathers such as public schools, libraries, and community centers tend to be located near one another.*
- *Planned housing developments will add pedestrian traffic at their locations.*
- *The steep topographical grades in parts of the study area create some physical barriers for pedestrians.*
- *Areas west of M. L. King Jr. Way S without sidewalk infrastructure in place have less pedestrian commuters than the rest of the study area (Figure 13).*

### 2.4.1 Pedestrian Network

Figure 13 shows the study area's pedestrian network, including sidewalks and multi-use trails. SDOT collected the sidewalk inventory using aerial photographs and GIS. Because it is only about 85 percent accurate, a field check is always needed to confirm whether a sidewalk actually exists at a particular location. As illustrated, although most of the study area's streets have sidewalks, sidewalks are still absent in some areas, particularly in the study area's southwest part.

Figure 13 also shows community gathering places. These are major generators of pedestrian traffic and include public schools, libraries, community centers, and public housing developments. Bus stops also generate pedestrian traffic and are shown.

A variety of types of pedestrians exist, including commuters, children, seniors, and recreational walkers. The bus stops shown on the map indicate the transit corridors that draw transit patrons who walk to bus stops, particularly along M.L. King Jr. Way S., Rainier Avenue S., and Beacon Avenue S. The other pedestrian generators shown indicate locations where certain groups, such as children and seniors, tend to use pedestrian facilities more heavily. Pedestrian generators that are highlighted include schools, community centers (including the Lighthouse for the Blind), libraries, major housing developments, and the senior center. Many schools, libraries, and community centers are located close to one another.

### 2.4.2 Housing Developments

Major housing developments in the study area include Rainier Vista Phases I and II and Holly Park Phases I, II and III. New affordable housing planned in the area includes the Hiawatha Village located at S. Dearborn Street and Hiawatha Place South, and the Dearborn Commons located across the street from Hiawatha Village (north of Hiawatha Place, on S. Dearborn). Within Hiawatha Village, Artspace is developing 60 units of low-income rental housing for artist and HomeSight is developing 90 home buyer units for low-income families. Dearborn Commons will consist of 18 units, developed by the Low Income Housing Institute (LIHI). The Hiawatha Village housing development is located near the Mountains-to-Sound trail.

### **2.4.3 Recreational Facilities**

Significant recreational facilities can be found throughout the study area. In the north end, a multi-use path along the I-90 right-of-way continues through the Mount Baker tunnel and across Lake Washington to Mercer Island and beyond. On Lake Washington, a 2.4-mile pedestrian pathway circumnavigates Seward Park. On the west side of the study area, the Chief Sealth multi-use trail, which will extend along the length of Beacon Hill, is currently under construction. Please refer to Figure 13 for the location of these recreational facilities.

### **2.4.4 Potential Barriers for Pedestrians**

As noted previously, M.L. King Jr. Way S. and Rainier Avenue S. both carry significant traffic volumes through the study area. These busy arterials can act as obstacles to pedestrian travel across the study area in the east and west directions because of the lack of safe crossing points and the lack of signalized intersections.

In particular, vehicle traffic on M.L. King Jr. Way S. generally travels at high speeds and creates an unpleasant pedestrian environment. Because typical vehicular speeds are high, pedestrian crossings are generally only safe to undertake at signalized intersections. Current reconstruction of this M.L. King Jr. Way S. throughout the study area (as part of the Sound Transit Central Link construction project) will significantly improve pedestrian conditions along the corridor with the addition of sidewalks and signalized mid-block crossing points.

In addition to the major arterials, other obstacles to pedestrian travel in the study area include the grades encountered on the east and west sides of Beacon Hill. This impacts access between Beacon Hill and Rainier Valley and between Beacon Hill and the area west of I-5. Figure 14 is a map depicting existing topography. Due to the lack of pedestrian crossings of I-5, the freeway provides a significant barrier to pedestrian travel beyond the study area to the west. The following existing crossings of I-5 pose potential issues for pedestrians, given the steep grades: S. Holgate Street, S. Columbian Way (via steps), S. Lucile Street, and S. Albro Place. Please note that the Military Road S. connection has been closed due to Sound Transit commuter rail operations. Given the steep grades in the study area and along the existing pedestrian crossings, improvements to existing crossings and/or inclusion of additional crossings should be considered.

### **2.4.5 Americans with Disabilities Act (ADA)**

The Americans with Disabilities Act (ADA) requires certain design standards to be adhered to in order to provide accessibility for all users of the right-of-way. ADA standards for sidewalks, curb ramps and other right-of-way features are required for all new development projects. ADA design standards were implemented when design plans were being developed along M.L. King Jr. Way S. for the Link Light Rail line. ADA design standards will be considered when improvements are developed as part of Phase 2. Phase 2 will also consider what public facilities (i.e. senior centers or libraries) should be prioritized for spot ADA improvements that could be accomplished as part of SDOT's program budget (such as curb ramps).



Figure 8: Existing Topography



## 2.5 Bicycle Network

*Conclusions:*

- *The Southeast Seattle bicycle network has very few designated bike lanes. The bike routes noted are primarily arterial or non-arterial streets commonly used by bicyclists.*
- *Bicycle impediments include high vehicular speeds along M.L. King Jr. Way S., steep grades, and roadways with damaged pavement.*

Figure 15 shows the study area's bicycle network, including bicycle lanes, arterial and non-arterial streets commonly used by bicyclists, and multi-use trails. There are generally no striped or signed on-street bicycle lanes within the study area, other than along M.L. King Jr. Way S. at I-90 to the north, Rainier Avenue S. near the city limits, S. Dearborn Street to the northwest, and S. Othello Street from M.L. King Jr. Way S. to 46th Avenue S.

For travel north and south through the study area, bicyclists commonly use either Beacon Avenue S., Lake Washington Blvd. to the east (a signed bike route that is part of the Lake Washington Loop), or a combination of non-arterial streets parallel to M.L. King Jr. Way S. and Rainier Avenue S. The bicycling community has great interest in Rainier Avenue S. and M.L. King Jr. Way S. as bike routes because of its hills and lack of directness to downtown. Unfortunately, these arterials experience high traffic volumes at high speeds and have no separate facilities for bicyclists. This presents a major barrier to most bicyclists. Commonly used routes for travel east and west include S. Massachusetts Street in the north, S. Orcas Street in the central part of the study area, and S. Cloverdale and S. Henderson streets in the south. A regional connection across Lake Washington to the east is provided via the I-90 trail. For travel beyond the study area to the west, a common bicycle route across the I-5 corridor is at S. Lucile Street, which provides a connection to the Duwamish Industrial area and the Georgetown and South Park neighborhoods. The bicycle lane on S. Dearborn Street also provides a connection around the north end of Beacon Hill to downtown Seattle. It should be noted that the routes commonly used by bicyclists in Southeast Seattle do not have bike-specific accommodations such as signed and striped bike lanes.

*The Southeast Sector Bikeability Report* (October 12, 2004), developed by the Bicycle Alliance of Washington group, describes improvements to pedestrian and bicycle access that could be made in Southeast Seattle. Recommended improvements include creating new bike destinations, improving signage for bicycle routes, and upgrading/creating new connections to and within Rainier Valley and to all destinations outside Rainier Valley. Please refer to the project matrix (Appendix A) for a list of recommendations from the Bicycle Alliance of Washington report.

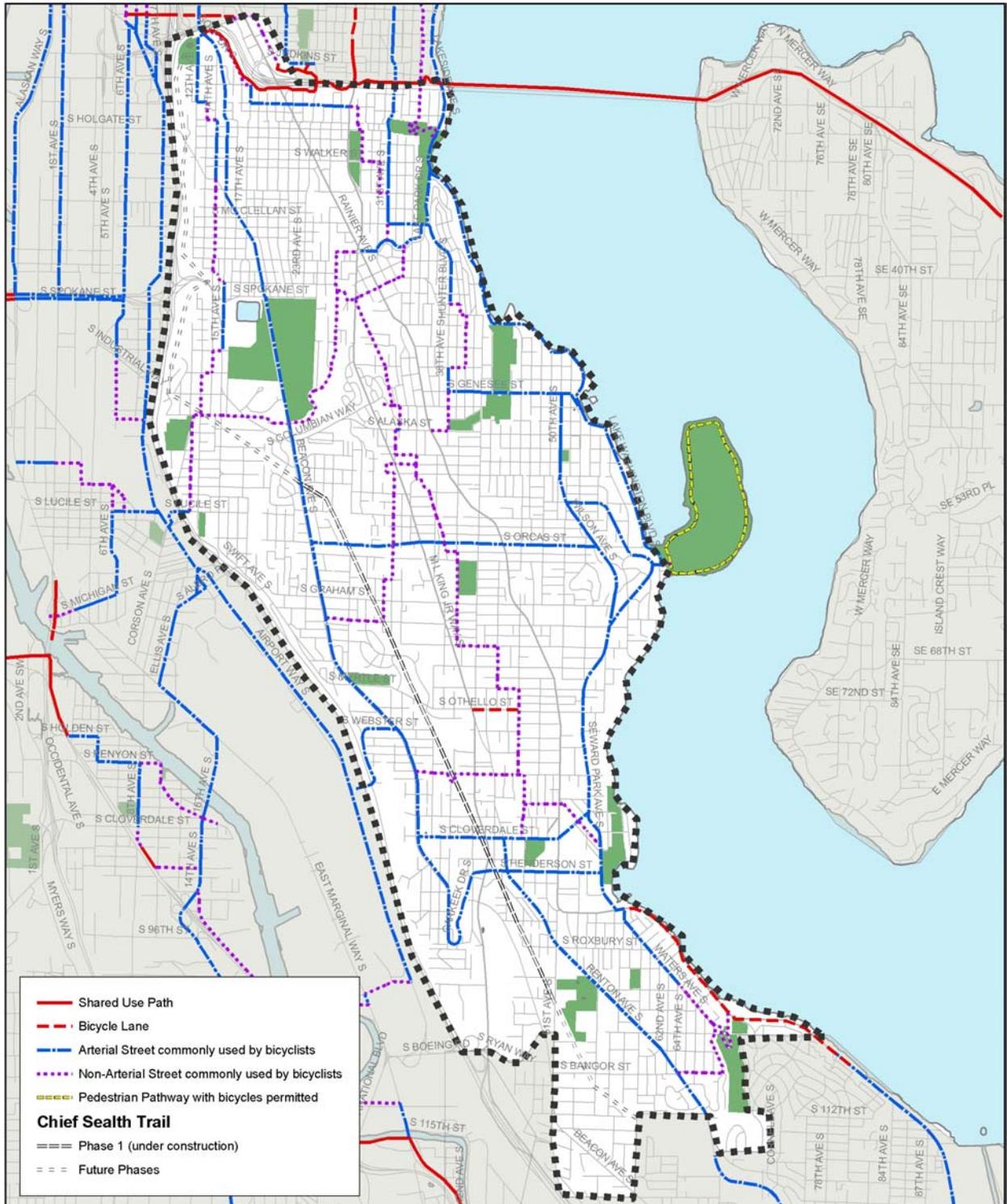
### 2.5.1 Recreational Facilities

Recreational facilities in the study area include the I-90 trail across Lake Washington to Mercer Island and beyond (a signed trail that is part of the Mountains-to-Sound Greenway), and the 2.4-mile loop trail around the perimeter of Seward Park. Bike Works, an organization providing affordable bicycle repair and service, is located in Columbia City and is a popular destination for many cyclists.

### **2.5.2 Potential Barriers for Bicyclists**

The following I-5 crossings pose issues for bicyclists, given the steep grade: S. Holgate Street, S. Lucile Street, and S. Albro Place. Please note that the Military Road S. connection has been closed due to Sound Transit commuter rail operations.

Figure 9: Bicycle Network



**Southeast Seattle Transportation Study**  
**Existing Conditions: Bicycle Network**  
 June 30, 2005

Not to Scale

## 2.6 Transit Service

*Conclusions:*

- Most transit trips (40 percent) from Southeast Seattle are destined to downtown Seattle.
- The main transit corridors in Southeast Seattle are the major north-south arterials, including Beacon Avenue S., M.L. King, Jr. Way S., and Rainier Avenue S.
- Few Southeast Seattle neighborhood circulatory transit routes exist.
- Few east/west transit routes exist.
- Routes 7, 48, and 36 have the highest daily boardings (for the entire length of the route, including areas served outside of Southeast Seattle).

### 2.6.1 Existing Service Levels

Transit work trips from Southeast Seattle to major destinations are shown in Table 4. Not surprisingly, the largest share of transit work trips (approximately 40 percent) is destined for Seattle’s Central Business District (CBD), where a large number of regional employers are located. Capitol Hill (19 percent) and Southeast Seattle (17 percent) also attract a substantial number of transit work trips. The remaining 25 percent of transit work trips are distributed among outlying areas in the Eastside or areas to the south of Seattle.

**Table 2: Transit Work Trips**

<b>Destination</b>	<b>% Transit Trips</b>
Southeast Seattle to Seattle CBD	40
Southeast Seattle to Capitol Hill	19
Southeast Seattle to Renton	8
Southeast Seattle to Kent	5
Southeast Seattle to Bellevue	3
Southeast Seattle to Redmond	8
Trips within Southeast Seattle	17

Source: 2000 census

Table 5 lists all King County Metro routes that travel to/from the study area from other areas of the city. This table also shows the peak and off-peak headways (the interval of time between each bus) for each route. These headways are consistent with the planned June 2005 service changes. Generally, peak service is provided during either the morning or afternoon commute, and off-peak service is provided midday, evenings, or weekends. Also included in Table 5 are the total daily boardings for existing routes. The daily boardings recorded are for the entire route, including areas served outside of Southeast Seattle. Figure 16 shows the coverage provided by these routes. Route 38 (Beacon Hill) is the only one route that provides local service.

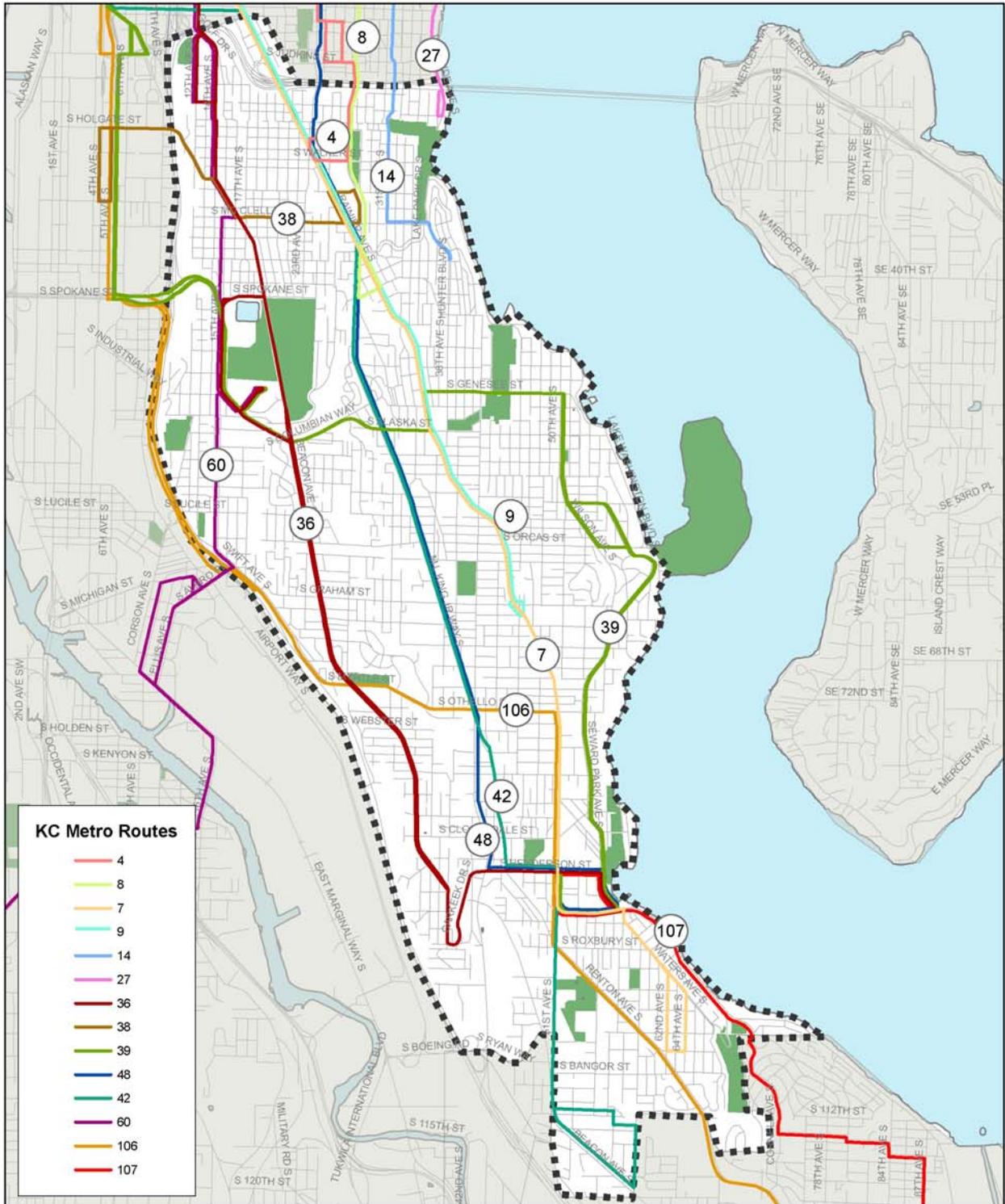
**Table 3: King County Metro Bus Routes Serving Southeast Seattle**

<b>Route Number</b>	<b>Name</b>	<b>Peak Headways</b>	<b>Off-Peak Headways</b>	<b>Daily Boardings*</b>
4	Queen Anne to Center Park	10-20 min	30 min	5175
7	Capitol Hill to Rainier Valley	10 min	10 min	13810
8	Seattle Center to Beacon Hill	15-30 min	30 min	2255
9	University District to Columbia City	30 min	60 min	2865
14	Summit to Mt. Baker	15 min	30 min	3495
27	Downtown to Colman Park	15-20 min	30 min	1310
36	Downtown to Rainier Beach	<10 min	10-20 min	7720
38	Beacon Hill	30 min	30 min	440
39	Downtown to Rainier Beach	30 min	30 min	1875
42	Downtown to Rainier View	30 min	30 min	2975
48	Loyal Heights to Rainier Beach	10-15 min	15 min	11835
60	Capitol Hill to White Center	30 min	30 min	2930
106	Seattle to Renton	15-20 min	30 min	3475
107	Rainier Beach to Renton	30 min	30 min	760

Source: King County Metro, 2005 (includes June 2005 service changes)

\* Based on Fall 2002 Automatic Passenger Counter (APC) counts from King County Metro

Figure 10: Transit Network



**Southeast Seattle Transportation Study**  
**Existing Conditions: Transit Network**  
 June 29, 2005

Not to Scale

## 2.7 Freight Mobility

*Conclusions:*

- *M. L. King, Jr. Way S. is the only City-designated Major Truck Street in Southeast Seattle.*
- *The Duwamish Manufacturing/Industrial Center, one of Seattle's major industrial areas, is located west of the study area. Freight spillover traffic from this area can be observed in Southeast Seattle when regional facilities (SR 99 and I-5) are congested.*
- *Local freight access needs to be maintained to support economic vitality in Southeast Seattle.*

Freight mobility is important in Seattle, especially at major industrial/ manufacturing centers. Industrial uses in Seattle are concentrated in the Duwamish area (between Boeing Field and the Port of Seattle) and Ballard/Interbay (northwest of the central business district). The Duwamish Manufacturing/Industrial Center is adjacent to the study area on the west side of I-5. Freight spillover from the Duwamish Manufacturing/Industrial Center may occur when I-5 is heavily congested.

Within the study area, major businesses and locations with freight needs are primarily located along the Rainier Avenue S. corridor and include the Pepsi-Cola Bottling Company, Darigold, WestFarm Foods, Lowe's, UW Consolidated Laundry, Tech Access Foundation, Group Health, the Veteran's Medical Center (Jefferson Park), and Amazon.com/Pacific Medical Center. Other locations with freight needs include schools and locations where mail is delivered (by an express carrier such as Federal Express). The size and nature of many of these businesses require a significant amount of goods and services movement throughout the day.

Although all arterial streets within Seattle are considered truck routes, the Seattle Comprehensive Plan calls for the designation of a network of Major Truck Streets to serve as primary routes. A Major Truck Street is an arterial street that accommodates significant freight movement through the city and to and from major freight traffic generators.

M.L. King Jr. Way S. is the only City-designated Major Truck Street in the study area. Other major truck routes border the study area to the west (I-5) and to the north (I-90) for through movement. Truck operations (especially left turns) along M.L. King Jr. Way S. will be limited to some extent with the introduction of Sound Transit Central Link Light Rail in 2009. Access through Southeast Seattle for freight will continue to be on the arterials.

Local freight access needs to be maintained to support economic vitality in Southeast Seattle. Signage to direct freight traffic to/from truck routes through Southeast Seattle is essential, and will be especially useful if any new routes are imposed as a result of Central Link Light Rail. Signage provides route information to drivers (to popular destinations such as business districts or the interstate system) and also suggests that the recommended routes were designed to accommodate appropriate turning radii and lane storage needed for truck traffic. Signage can also be considered as a means to direct freight traffic to/from business districts, as exemplified by a recent project that installed wayfinding signs to direct trucks

from M.L. King Jr. Way S. to Columbia City. The installation of these signs addressed the Saint-Gobain property owner(s)' concerns about truck access to their facility in the Columbia City district. The wayfinding signs were not specifically for Saint-Gobain, but for all trucks trying to access Columbia City from M.L. King Jr. Way S.

## 2.8 Traffic Operations

### *Conclusions:*

- *High Accident Locations (HALs) for signalized and unsignalized intersections typically occurred at intersections carrying high volumes (Rainier Avenue S. and M. L. King Jr. Way S.).*
- *The majority of pedestrian and bicycle accidents occurred along Beacon Avenue S., M. L. King Jr. Way S., and Rainier Avenue S.*
- *Many of the pedestrian and bicycle accidents occurred at intersections that are not regulated (traffic signal or traffic circle) or do not have marked crosswalks.*
- *M. L. King Jr. Way S. and Rainier Avenue S. experience the highest traffic volumes and carry most of the north-south traffic.*

### 2.8.1 Existing Traffic Signals and Traffic Circles

Traffic signals are typically placed at intersections with high traffic volumes, where substantial queues and collisions are observed, and where a signal warrant analysis evaluation has been completed.

Traffic circles are typically placed in the center of the intersection (varying in diameter depending on intersection design and traffic volumes). In Seattle, traffic circles are used as a traffic calming measure in residential neighborhoods and are implemented throughout the city. Figure 17 shows the existing locations of traffic signals and traffic circles within Southeast Seattle.

#### **Existing Traffic Signals**

Over 82 traffic signals (various types) are incorporated into the roadway network in Southeast Seattle. Table 6 lists each signal location and type.

**Table 6: Existing Traffic Signal Locations and Signal Types**

Street	Cross Street	Signal Type
14th Ave. S.	S. Hill St.	Half Signal (Pedestrian-Actuated)
15th Ave. S.	S. College St.	City Signal
15th Ave. S.	Beacon Ave. S.	City Signal
15th Ave. S.	S. Hanford St.	Half Signal (Pedestrian-Actuated)
15th Ave. S.	S. Spokane St.	City Signal
15th Ave. S.	S. Columbian Wy	City Signal
15th Ave. S.	S. Columbian Wy	City Signal
15th Ave. S.	S. Oregon St.	City Signal
15th Ave. S.	S. Shelton St.	Half Signal (Pedestrian-Actuated)
15th Ave. S.	S. Lucile St.	City Signal
15th Ave. S.	S. Dakota St.	Half Signal (Pedestrian-Actuated)
17th Ave. S.	S. College St.	City Signal
23rd Ave. S.	Rainier Ave. S.	City Signal
23rd Ave. S.	S. McClellan St.	City Signal
23rd Ave. S.	S. Hanford St.	City Signal
23rd Ave. S.	I-90 Bikeway (crosswalk)	Mid-Block Crosswalk Signal
23rd Ave. S.	S. Massachusetts St.	City Signal
35th Ave. S.	S. Alaska St.	Half Signal (Pedestrian-Actuated)
39th Ave. S.	S. Othello St.	City Signal
51st Ave. S.	Rainier Ave. S.	City Signal
57th Ave. S.	Rainier Ave. S.	City Signal
Airport Wy S.	S. Norfolk St.	City Signal
Beacon Ave. S.	S. McClellan St.	City Signal
Beacon Ave. S.	S. Hanford St.	Half Signal (Pedestrian-Actuated)
Beacon Ave. S.	S. Spokane St.	City Signal
Beacon Ave. S.	S. Columbian Wy	City Signal
Beacon Ave. S.	S. Graham St.	City Signal
Beacon Ave. S.	S. Myrtle St.	City Signal
Golf Dr. S.	S. Charles St.	City Signal
I-90 EB Off-Ramp	Rainier Ave. S.	State Signal
M.L. King Jr. Wy S.	I-90 Bikeway (crosswalk)	Mid-Block Crosswalk Signal
M.L. King Jr. Wy S.	S. Massachusetts St.	City Signal
M.L. King Jr. Wy S.	S. Walker St.	City Signal
M.L. King Jr. Wy S.	S. Bayview St.	City Signal
M.L. King Jr. Wy S.	S. McClellan St.	City Signal

**Table 6 (continued):  
Existing Traffic Signal Locations and Signal Types**

<b>Street</b>	<b>Cross Street</b>	<b>Signal Type</b>
M.L. King Jr. Wy S.	Rainier Ave. S.	City Signal
M.L. King Jr. Wy S.	S. Della St.	City Signal
M.L. King Jr. Wy S.	Tamarack Dr. S.	Half Signal (Pedestrian-Actuated)
M.L. King Jr. Wy S.	S. Columbian Wy	City Signal
M.L. King Jr. Wy S.	S. Alaska St.	City Signal
M.L. King Jr. Wy S.	S. Orcas St.	City Signal
M.L. King Jr. Wy S.	S. Graham St.	City Signal
M.L. King Jr. Wy S.	S. Holly St	Half Signal (Pedestrian-Actuated)
M.L. King Jr. Wy S.	S. Myrtle St.	City Signal
M.L. King Jr. Wy S.	S. Othello St.	City Signal
M.L. King Jr. Wy S.	S. Kenyon St.	City Signal
M.L. King Jr. Wy S.	S. Cloverdale St.	City Signal
M.L. King Jr. Wy S.	S. Henderson St.	City Signal
M.L. King Jr. Wy S.	S. Norfolk St.	City Signal
Rainier Ave. S.	S. Bayview St.	City Signal
Rainier Ave. S.	S. McClellan St.	City Signal
Rainier Ave. S.	S. Walden St.	City Signal
Rainier Ave. S.	S. Charlestown St.	City Signal
Rainier Ave. S.	S. Genesee St.	City Signal
Rainier Ave. S.	S. Alaska St.	City Signal
Rainier Ave. S.	S. Edmunds St.	City Signal
Rainier Ave. S.	S. Ferdinand St.	City Signal
Rainier Ave. S.	S. Hudson St.	City Signal
Rainier Ave. S.	S. Brandon St.	Half Signal (Pedestrian-Actuated)
Rainier Ave. S.	S. Orcas St.	City Signal
Rainier Ave. S.	S. Kenny St.	Fire Signal
Rainier Ave. S.	S. Graham St.	City Signal
Rainier Ave. S.	S. Holly St	City Signal
Rainier Ave. S.	S. Othello St.	City Signal
Rainier Ave. S.	S. Kenyon St.	Half Signal (Pedestrian-Actuated)
Rainier Ave. S.	S. Rose St.	Half Signal (Ped Actuated)
Rainier Ave. S.	S. Cloverdale St.	City Signal
Rainier Ave. S.	S. Henderson St.	City Signal
Rainier Ave. S.	S. Fisher Pl.	Half Signal (Pedestrian- Actuated)
Rainier Ave. S.	Seward Park Ave. S.	City Signal
Rainier Ave. S.	S. Massachusetts St.	City Signal

**Table 6 (continued):  
Existing Traffic Signal Locations and Signal Types**

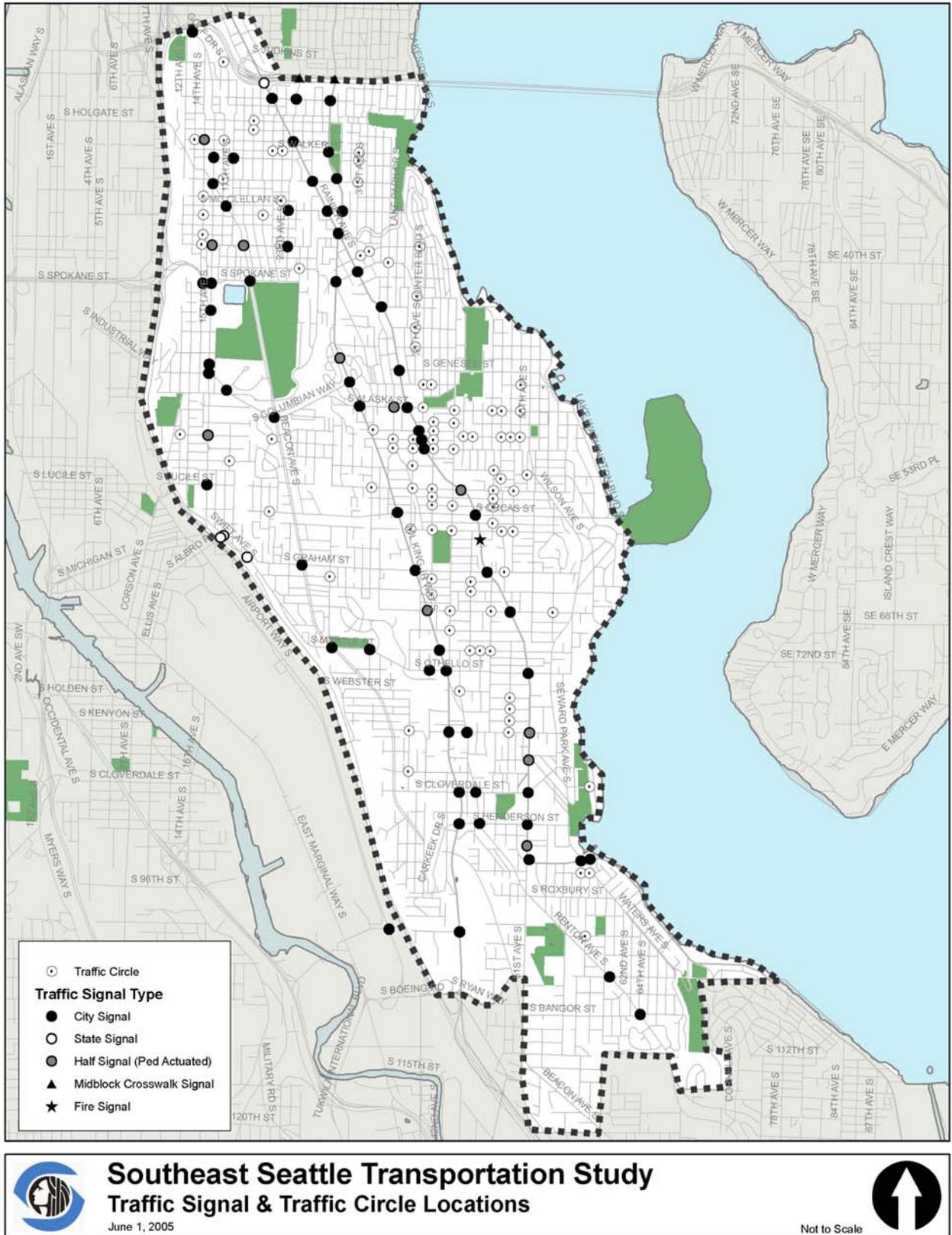
<b>Street</b>	<b>Cross Street</b>	<b>Signal Type</b>
Renton Ave. S.	S. Kenyon St.	City Signal
Renton Ave. S.	S. Cloverdale St.	City Signal
Renton Ave. S.	S. Henderson St.	City Signal
Renton Ave. S.	S. Ryan St.	City Signal
Renton Ave. S.	S. Bangor St	City Signal
S. Columbian Wy	S. Spokane St.	City Signal
S. Myrtle Pl.	S. Myrtle St.	City Signal
Swift Ave. S.	S. Albro Pl.	State Signal
Swift Ave. S.	S. Graham St.	State Signal
Swift Ave. S.	S. Graham St.	State Signal
Veterans Hospital Dr.	S. Columbian Wy	City Signal

### **Existing Traffic Circles**

The City of Seattle’s Neighborhood Traffic Control Program (NTCP) works to install traffic circles in neighborhood streets in order to reduce accidents and speeds. The traffic circles that have been built to date (almost 1000 city-wide) have helped to substantially reduce accidents and speeds in neighborhoods.

Because of high demand and limited funding, an evaluation process for determining projects to be included in the NTCP has been established. More information about the process can be found on SDOT’s website.

Figure 11: Existing Locations of Traffic Signals and Traffic Circles



## **2.8.2 Traffic Volumes**

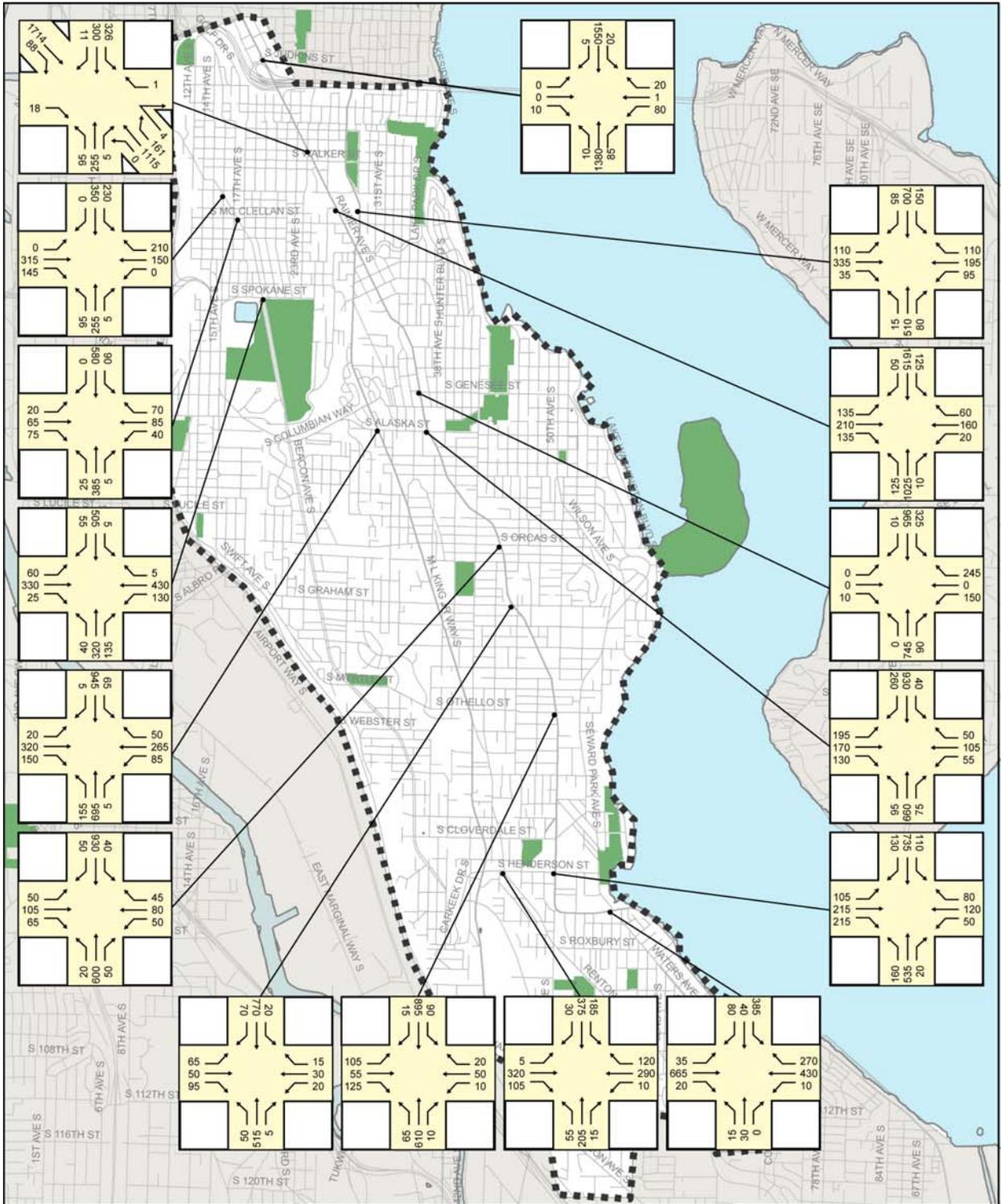
The PM peak hour (the highest one-hour volume between 4 - 6 PM) intersection volumes at key intersections are shown in Figure 18. The traffic count information was obtained from the Seattle Department of Transportation and the counts were performed between 1997 and 2003. Most of the volumes shown are from 2002.

The Southeast Seattle corridor experiences a substantial number of commuters traveling northbound in the AM peak hour and southbound in the PM peak hour. Much of the traffic is on the principal arterials: Rainier Avenue S., M.L. King, Jr. Way S., S. Columbian Way, and S. Myrtle Place. Of these principal arterials, M.L. King Jr. Way S. and Rainier Avenue S. experience the highest traffic volumes and carry most of the north-south traffic.

During the PM peak hour, southbound Rainier Avenue S. at 39<sup>th</sup> Avenue South carries 1,714 vehicles, and 3.2 percent of the traffic stream is composed of trucks and buses. Northbound Rainier Avenue S. at 39<sup>th</sup> Avenue South carries 1,115 vehicles; and 3.1 percent of the traffic stream is composed of trucks and buses.

Traffic volumes remain high on Rainier Avenue S. during the PM peak hour compared to adjacent roadways, but steadily decrease southbound as traffic filters out into the neighborhoods. PM peak volumes on Rainier Avenue S. at S. Henderson Street are less than half of the volumes experienced at 39<sup>th</sup> Avenue S., with 735 southbound vehicles and 535 northbound vehicles. The percentage of trucks on Rainier Avenue S. at this intersection is much higher, with trucks and buses composing 10.0 percent of the southbound traffic stream and 4.9 percent of the northbound traffic stream.

Figure 12: Existing PM Peak Hour Intersection Volumes




**Southeast Seattle Transportation Study**  
**Existing Conditions: PM Peak Hour Intersection Volumes**  
 June 1, 2005
 
 Not to Scale

The traffic volumes shown in Table 7 represent the Average Annual Daily Traffic (AADT) (5-day, 24-hour) for sections of roadway within the Southeast Seattle study area for 1996 and 2003.

**Table 7: Average Annual Daily Traffic for 1996 and 2003**

	1996	2003	Percentage change from 1996 to 2003
<b>North-South Corridors</b>			
Beacon Ave. S.: S. Spokane to S. Columbian Wy	15400	15000	-2.6%
M.L. King Jr. Way S.: S. Graham to S. Myrtle	29800	33700	+13.1%
Rainier Ave. S. just south of M.L. King Jr. Way S.	27800	29800	+7.2%
<b>East-West Corridors</b>			
S. Genessee St.: 38 <sup>th</sup> – 50 <sup>th</sup> Ave. S.	9700	10000	+3.1%
S. Columbian Wy.: S. Swift to S. Beacon	17500	16700	-4.6%
S. Othello St.: M.L. King Jr. Way S. to Rainier Ave. S.	8600	8700	+1.2%
S. Henderson St.: Renton Ave. S. to Rainier Ave. S.	10900	12000	+10.1%

M. L. King Jr. Way S. had just over a 13 percent increase in volumes between 1996 and 2003. This was the largest increase among the north-south corridors. S. Henderson Street had the largest increase in volume among the east-west corridors, at just over 10%. A fluctuation of 3 percent or less could be attributed to a nominal margin of error in data collection; so no substantial change in traffic volumes would be observed.

### **2.8.3 Collision History**

High Accident Locations (HALs) are classified by intersection type and mode type. At intersections involving vehicle collisions, HALs are defined as intersections with ten or more accidents per year for signalized intersections and five or more per year at unsignalized intersections. Bicycle and Pedestrian Accident Locations (BALs and PALs) are defined differently. BALs and PALs are defined as areas with at least four collisions in a six-year period. Collision data for Southeast Seattle was collected for 1998 to 2003. Tables 8 and 9 list HAL and PAL intersection locations in the study area. Between 1998 and 2003, no BALs were identified in the study area.

**Table 8: High Accident Locations**

<b>Street</b>	<b>HAL Intersection Locations</b>
15th Ave. S.	15th & S. Dakota St. 15th & S. McClellan St.
22nd Ave. S.	22nd & S. College St.
23rd Ave. S.	23rd & S. College St. 23rd & Rainier Ave. S. 23rd & S. Walker St.
37th Ave. S.	37th & S. Genesee St. 37th & S. Orcas St.
39th Ave. S.	39th & S. Graham St. 39th & S. Orcas St. 39th & Rainier Ave. S.
42nd Ave. S.	42nd & Rainier Ave. S. 47th & S. Graham St.
Beacon Ave. S.	Beacon & S. Eddy St. Beacon & S. Orcas St. Beacon & S. Stevens St.
S. Columbian Way & S. Oregon St.	Columbian & S. Oregon St.
M.L. King Jr. Way S.	MLK & S. Juneau St. MLK & S. McClellan St. MLK & S. Othello St. MLK & Rainier Ave. S. MLK & Renton Ave. S. MLK & S. Thistle St.
Rainier Ave. S.	Rainier & S. Dearborn St. Rainier & S. Genesee St. Rainier & S. Juneau St. Rainier & S. King St. Rainier & S. Massachusetts St. Rainier & S. Orcas St. Rainier & S. Oregon St. Rainier & S. Stevens St.
Renton Ave. S.	Renton & S. Roxbury St.

**Table 9: Pedestrian Accident Locations**

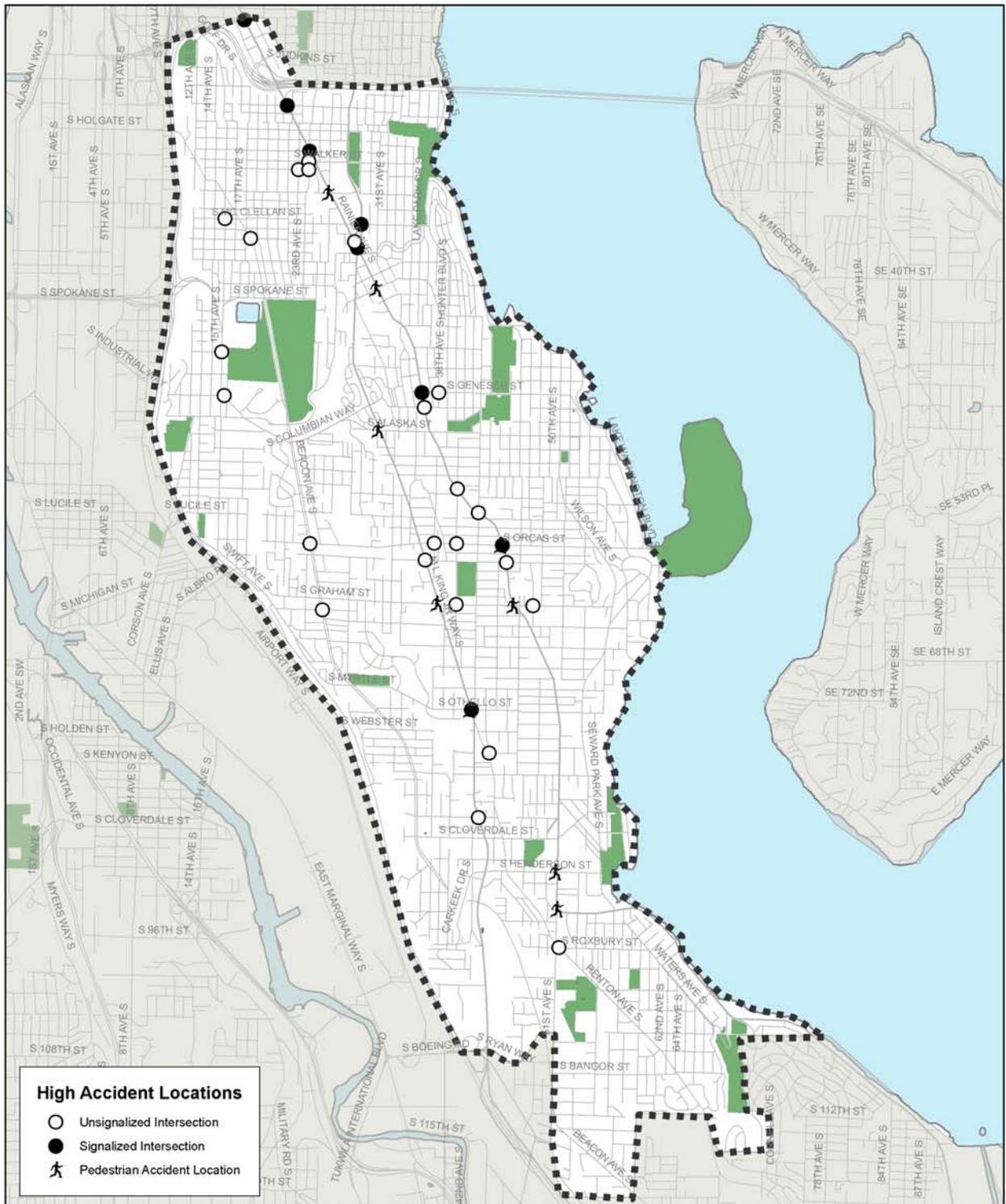
<b>Street</b>	<b>PAL Intersection Locations</b>
M.L. King Jr. Way S.	MLK & S. Alaska St. MLK & S. Graham St. MLK & S. Othello St.
Rainier Ave. S.	Rainier & 51 <sup>st</sup> Ave. S. Rainier & S. Bayview St. Rainier & Della Walden Rainier & S. Graham St. Rainier & S. Henderson St. Rainier & S. Orcas St.

Figure 19 summarizes the HALs for signalized and unsignalized intersections involving vehicles, and pedestrian accidents (no BALs were identified). Most HALs occurred on or near M.L. King Jr. Way S. and Rainier Avenue S.

Figure 20 shows the locations of all pedestrian and bicycle accidents. Similar to the HAL locations, many pedestrian and bicycle-related accidents occurred at M.L. King Jr. Way S. and Rainier Ave S. Beacon Avenue S. also had several pedestrian and bicycle accidents. Figure 21 illustrates the location of pedestrian and bicycle accidents in relation to the location of traffic signals, circles, and transit stops. As seen on the map, many pedestrian and bicycle accidents occur in areas where a regulated crossing is not present.

The implementation of light rail along M. L. King Jr. Way S. will include many improvements to pedestrian signals, crosswalks, sidewalks, and lighting that will provide safer routes for pedestrians and bicyclists. More safety improvements will be required along Rainier Avenue S., a transit corridor that serves a large number of vehicles through several business districts and has experienced a high number of accidents.

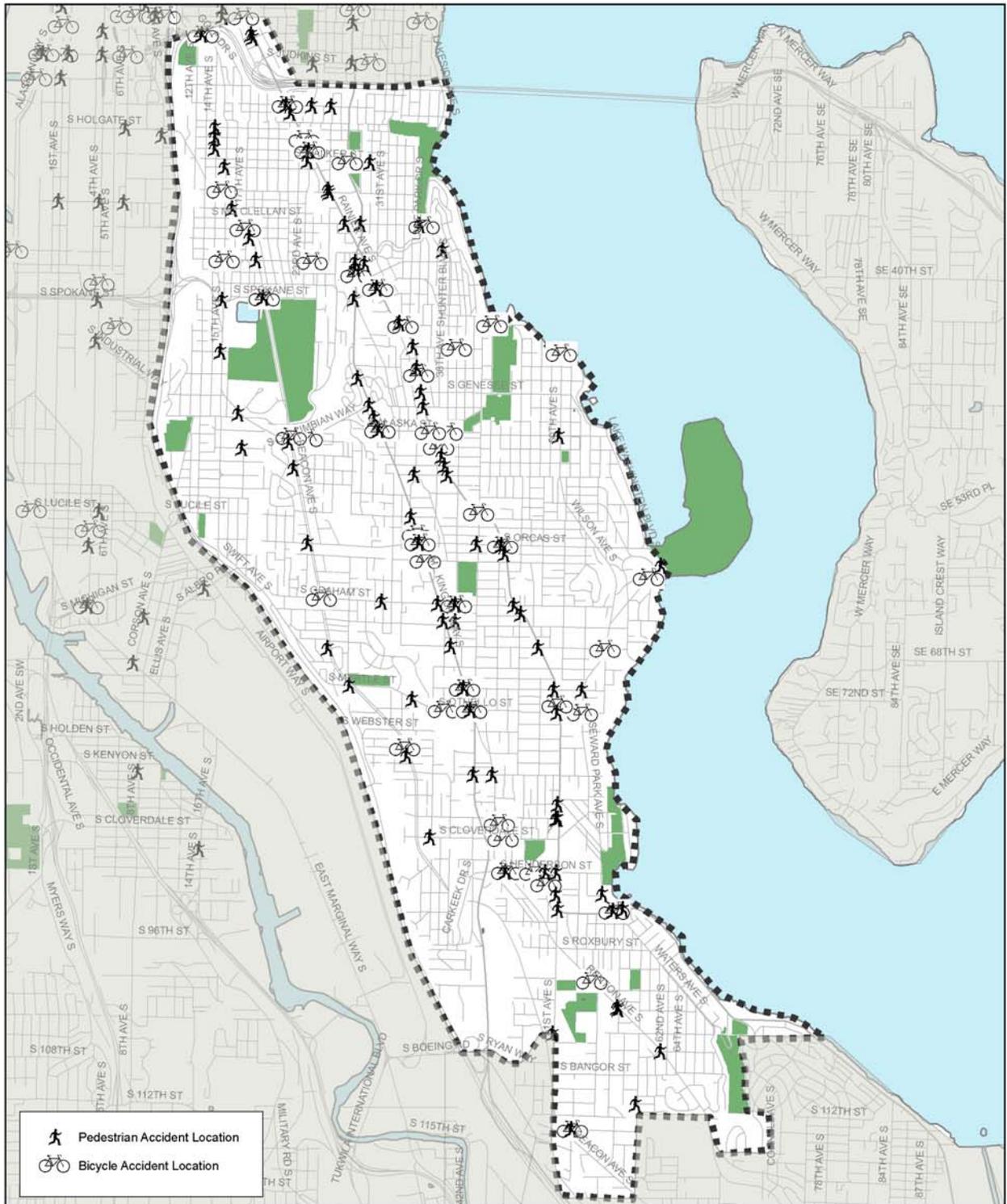
Figure 13: High Accident Locations



**Southeast Seattle Transportation Study**  
**Existing Conditions: High Accident Locations**  
 June 28, 2005 Data encompasses years 1998-2003

Not to Scale

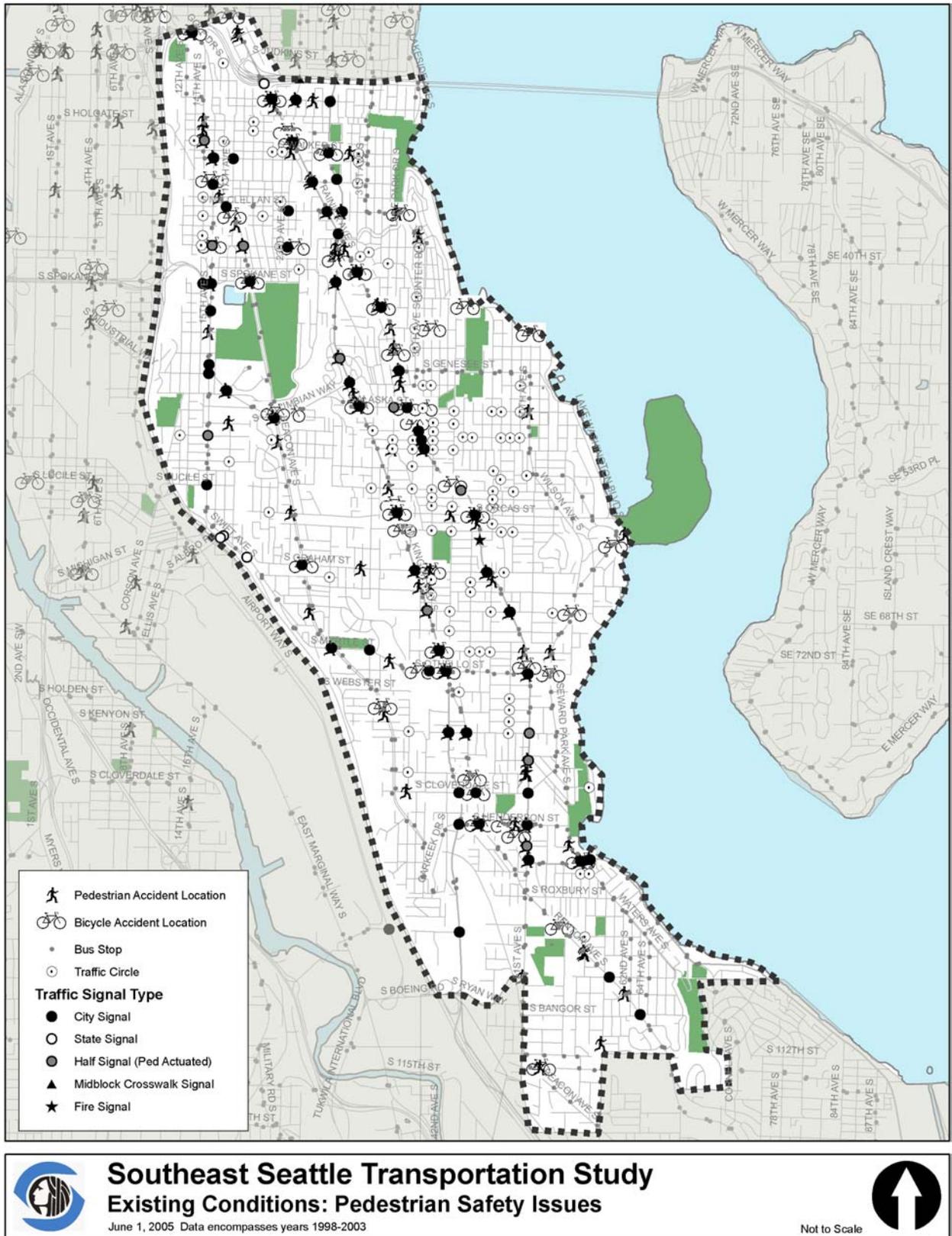
Figure 14: Pedestrian and Bicycle Accident Locations




**Southeast Seattle Transportation Study**  
**Existing Conditions: Pedestrian and Bicycle Accident Locations**  
 June 1, 2005 Data encompasses years 1998-2003

  
 Not to Scale

Figure 15: Pedestrian Safety



## 2.9 Parking

*Conclusion:*

*- On-street parking is underutilized in the study area. North Beacon Hill has the highest average utilization (69 percent) and Rainier Beach has the lowest average utilization (17 percent).*

The City of Seattle Department of Transportation (SDOT) manages the parking supply to achieve urban center and urban village vitality, auto trip reduction, and improved air quality. When the City of Seattle makes decisions regarding on-street parking, the arterial street system's primary transportation purpose is to move people and goods.

In commercial districts, the use of curb space is prioritized in the following order:

1. Transit stops and layover
2. Passenger and commercial vehicle loading
3. Short-term parking (time limit signs and paid parking)
4. Parking for shared vehicles,
5. Vehicular capacity

In residential districts, the use of curb space is prioritized in the following order:

1. Transit stops and layover
2. Passenger and commercial vehicle loading
3. Parking for local residents and shared vehicles
4. Vehicular capacity

For more on SDOT's parking policies, please refer to Seattle's Comprehensive Plan at [http://www.seattle.gov/dpd/Planning/Seattle's\\_Comprehensive\\_Plan/DPD\\_001178.asp](http://www.seattle.gov/dpd/Planning/Seattle's_Comprehensive_Plan/DPD_001178.asp).

SDOT's Comprehensive Neighborhood Parking Study (CNPS) outlines parking availability and utilization throughout Southeast Seattle. In 1998-1999, the City of Seattle conducted the city-wide CNPS that included sample ¼ mile surveys around the proposed (in 1998) light rail station locations as well as Southeast Seattle neighborhood business districts. On- and off-street parking occupancy and duration data were collected to determine average and peak parking demand during a typical weekday. Table 10 summarizes average utilization rates for the selected Southeast Seattle communities. Average total parking utilization (on-street and off-street) is the highest in the North Beacon Hill neighborhood area, at 69 percent. On-street parking utilization is also highest in the North Beacon Hill neighborhood area, near Amazon.com. Of the eight neighborhoods listed in the table, half have parking utilization peaks that occur during the lunchtime midday (between 11am and 2pm). Three of the neighborhoods' peak parking periods occur in the evening, and one neighborhood (the S. Henderson Street Station Area) has a peak period in the morning.

**Table 10: Summary of Parking Utilization in Southeast Seattle**

<b>Area</b>	<b>Average Parking Utilization (%)</b>	<b>Peak On-Street Parking Utilization (%)</b>	<b>Peak Period Time</b>
Columbia City (M.L. King Jr. Way S.)	48	74	12-1 pm
Columbia City (Rainier Ave. S.)	43	52	6-7 pm
S. Henderson St Station Area	15	20	8-9 am
M.L. King Jr. Way S. at Holly	37	31	4-5 pm
North Beacon Hill (S. Atlantic St.)	69	86	11-12 pm
North Beacon Hill (S. Lander St.)	36	39	1-2 pm
North Rainier	36	50	12-1 pm
Rainier Beach	17	18	5-6 pm

Source: Comprehensive Neighborhood Parking Study (1999)