

## PARKING

### AFFECTED ENVIRONMENT

#### OVERVIEW

Appendix G to this Draft EIS includes a parking impact analysis that is summarized in this section. The analysis reviews on-street and off-street parking resources, focusing on the vicinities most likely to be affected by the alternatives' zoning changes and future development to the year 2030.

#### OFF-STREET PARKING

The surveyed off-street parking consists mainly of paid parking available to the public, though some of the lots include reserved parking for nearby uses. Most of the parking is available for hourly parking, with some available for monthly permit parking. The surveyed off-street parking serves employees, clients and customers of businesses, many of which do not have parking on their properties. Table 3-56 summarizes the parking supply and estimated utilization at the surveyed off-street parking lots. The mid-day non-event utilization for off-street parking ranges from approximately 60-90%, with the exception of the Stadium Area neighborhood. Highest utilization was observed in the Pioneer Square neighborhood, which is closest to the Downtown business district and contains a significant amount of existing office and retail land use.

**Table 3-56**  
**Surveyed Off-Street Surface Parking Supply and Utilization (2007)<sup>1</sup>**

Neighborhood <sup>2</sup>	Parking Supply <sup>3</sup>	Parking Utilization <sup>4</sup>
Chinatown/Japantown	900 stalls	70%
Pioneer Square	500 stalls	90%
Stadium Area	400 stalls	10%
South of Dearborn	400 stalls	80%
Little Saigon	350 stalls	60%

Source: Field observations, March 2007

1. Survey was visual in nature, estimating the approximate supply and utilization.
2. Neighborhoods defined by DPD staff.
3. Supply is approximate and does not account for specific-use parking garages, such as the garages for Safeco Field and Qwest Field. Rounded to nearest 50.
4. Utilization is approximate and was observed during weekday mid-day hours, with no events underway at the stadiums.

- **Chinatown/Japantown:** This neighborhood's surveyed supply consists of mostly public hourly parking lots and reserved parking lots.
- **Pioneer Square:** The majority of this neighborhood's surveyed supply is in public hourly parking lots.
- **Stadium Area:** This neighborhood has fewer public hourly parking lots than other districts (excluding the stadium garages). Daytime utilization of these lots is low, but during typical stadium events the utilization is high.
- **South of Dearborn:** Most of the parking is available to the public, with some private lots dispersed through the area.
- **Little Saigon:** In this neighborhood, the off-street parking is mainly private or reserved.

#### ON-STREET PARKING

The on-street parking throughout the study area is highly utilized during the weekday. Types of on-street parking include: free hourly, paid hourly (including paystations and meters), and unrestricted. The most prevalent are paid hourly and free hourly, with time limitations on the free hourly ranging from 1 hour to 4 hours. In all of the neighborhoods, several 3-minute passenger loading zones are dispersed throughout the blocks, as well as 30-minute loading zones. These loading zones are more prevalent in areas where businesses are located curbside. Table 3-57 summarizes prevalent on-street parking types and observed utilization rates. At utilization rates of 80 percent and above, the public typically perceives there is no excess capacity available.

**Table 3-57**  
**Prevalent On-Street Parking Type and Observed Utilization (2007)<sup>1</sup>**

Neighborhood <sup>2</sup>	Dominant Parking Type <sup>3</sup>	Parking Utilization <sup>4</sup>
Chinatown/Japantown	Paid Hourly	90%
Pioneer Square	Paid Hourly	90%
Stadium Area	Free Hourly/Unrestricted	80%
South of Dearborn	Unrestricted	90%
Little Saigon	Free Hourly/Unrestricted	80%

Source: Field observations, March 2007

1. Survey was visual in nature and did not document exact number of spaces by type, but gathered approximate utilization by type.
2. Neighborhoods defined by DPD staff.
3. Dominant parking type is based on field observation.
4. Utilization is approximate and was observed during mid-day hours.

- **Chinatown/Japantown:** This neighborhood primarily has paid hourly on-street parking, with some blocks having free hourly and unrestricted hourly parking. A few areas have dedicated bus zones. The mid-day unrestricted parking was observed to be nearly 100 percent utilized, while the other types were approximately 80 to 90 percent utilized.
- **Pioneer Square:** This neighborhood also has primarily paid hourly on-street parking, with more bus zones than Chinatown/Japantown. In addition, along certain blocks the parking is restricted during one or both of the peak commuting hours (7:00 am to 9:00 am or 4:00 pm to 6:00 pm) in order to increase travel lane capacity for peak hour demand. These restrictions occur primarily along 1st Avenue S. The mid-day utilization in this neighborhood was observed to be high, at approximately 90 to 100 percent.
- **Stadium Area:** In this neighborhood, the on-street parking is generally either free hourly or unrestricted. Bus zones along certain blocks, mainly on 1st Avenue S, reduce on-street parking supply. In addition, the parking is restricted during one or both of the peak commuting hours (7:00 am to 9:00 am or 4:00 pm to 6:00 pm) in some locations in order to increase travel lane capacity to serve peak hour demand. Mid-day parking utilization was slightly lower than other neighborhoods, at approximately 70 to 80 percent.
- **South of Dearborn:** This neighborhood has nearly all unrestricted on-street parking, with a couple of blocks having free hourly parking. The mid-day utilization is high in this area, at approximately 90 to 100 percent.
- **Little Saigon:** This neighborhood has mainly unrestricted and free hourly on-street parking, with some bus zones as well. The unrestricted parking has a high mid-day utilization, at approximately 90 to 100 percent, while the free hourly parking mid-day utilization is slightly lower, at approximately 70 to 80 percent.

## *ENVIRONMENTAL IMPACTS*

The parking impact analysis for this programmatic EIS focuses on the potential displacement of parking that could occur with future infill development to the year 2030, and related trends that might affect how on-street and off-street parking are impacted. Future development patterns assumed for each EIS alternative were identified by DPD staff. This provides an understanding of the magnitude of parking loss that could occur and its geographic distribution among the neighborhoods. Other parking losses, such as those due to major road construction, are also described.

## OFF-STREET PARKING

Because the properties available for future infill development are primarily those in surface parking uses, future construction of new buildings would displace existing parking supply. The parking utilization of those spaces that are predicted to be displaced under each of the EIS alternatives is summarized in Table 3-58. This represents the displaced demand for parking.

**Table 3-58**  
**Off-Street Study Area Parking (Currently Utilized) Potentially Displaced by Future Development<sup>1</sup>**

Neighborhood	No-Action	Alternative 1	Alternative 2	Alternative 3
Chinatown/Japantown	360	610	610	510
Pioneer Square	410	410	270	410
Little Saigon	10	0	0	0
South of Dearborn	60	100	120	250
Stadium Area	0	20	20	20
<b>Total</b>	<b>840</b>	<b>1,140</b>	<b>1,020</b>	<b>1,190</b>

Source: Field observations, March 2007.

1. Numbers rounded to the nearest 10.

### 2030 No Action Alternative (Alt. 4)

Future development under the No-Action Alternative would displace approximately 850 utilized parking spaces, primarily affecting Pioneer Square and Chinatown/Japantown west of I-5. Some of the displaced parking demand could be satisfied in other locations such as public parking in the Stadium Area. Such parking is more likely to be used by employees who park for the entire work day and are willing to walk longer distances. Other parking users such as retail or restaurant patrons are not typically willing to walk longer distances for parking. Because on-street parking is already highly utilized in the study area, it likely could not absorb much of the displaced parking demand. Some demand could be eliminated with shifts to transit, ridesharing, or non-motorized travel modes when available parking becomes sparser and more expensive.

The Alaskan Way Viaduct replacement project's construction is also likely to eliminate a substantial amount of surface parking capacity, both on-street (approximately 220 to 650 spaces) and off-street (approximately 50 to 120 spaces). This is likely to noticeably impact parking within the study area, particularly in the Stadium Area and Pioneer Square neighborhood due to spill-over of displaced demand. The timing and final design of the Viaduct replacement are not yet determined.

### 2030 Action Alternatives (Alts. 1, 2, 3)

As shown in Table 3-58, the Action Alternatives would likely displace approximately 1,000 to 1,200 parking spaces by year 2030, which would be 200 to 400 more spaces than under the No-Action Alternative. This would generate additional amounts of "spill-over" demand for parking in other locations, and would probably also result in some shift to alternative modes of transportation, if available parking supply is reduced, is more difficult to find or is more expensive. The overlap of stadium facility

event-related parking demand also would influence the availability and cost of parking during days with events.

Figure 3-48 illustrates the potential loss of utilized parking in each neighborhood per Action Alternative. Alternative 1, which concentrates more development in the Chinatown/Japantown and Pioneer Square neighborhoods would result in the highest loss of parking in those neighborhoods. Alternative 2 is similar to Alternative 1 but with lesser projected parking losses by 2030 per its growth scenario. Alternative 3 could lead to higher levels of parking loss in the South-of-Dearborn area than in the other alternatives, and is indicated to have the greatest potential amount of parking spaces lost per its growth scenario.

### ***Parking Supply for New Development***

The City of Seattle has developed unique parking requirements for developments in Downtown zones. Downtown is an area roughly bordered by Denny Way on the north, the waterfront on the west, I-5 on the east and S. Dearborn Street on the south. Zoning Downtown recognizes the role the area plays as the densely developed urban core of the City, accommodating high-rise buildings, a large workforce, shopping and entertainment, and multifamily residential uses. The Downtown is well served by transit and some vehicular congestion is expected. All study neighborhoods except Little Saigon, South-of-Dearborn and part of the Stadium Area are covered by Downtown rules. Land uses within the Downtown zones are not required to provide any off-street parking and non-residential uses are limited to providing a maximum of one space per 1,000 square feet. Table 3-59 provides a comparison of Seattle City Code requirements for off-street parking with peak parking rates from the Institute of Transportation Engineers.

These requirements, along with good transit service and a free-ride zone have helped to create a low single-occupant vehicle (SOV) commute mode in central Downtown. The personal cost of parking is one of the most influential variables that influences travel mode<sup>1</sup>. In 2000, the SOV rate for Downtown Seattle was about 40 percent<sup>2</sup>. Over time, as utilized parking is displaced and if new development puts in little or no parking due to zoning limitations, a similar shift in commute mode would be anticipated if supported by expanded and improved transit service and other supportive programs. Retail and restaurant patrons would be more difficult to shift away from vehicular modes than urban office workers and residents.

### **2030 No Action Alternative (Alt. 4)**

Due primarily to planned development projects in the Pioneer Square and the Chinatown/Japantown neighborhoods, parking supply that currently accommodates the demands generated by other uses in the neighborhoods will be lost, over time, directly displaced by infill development. Therefore, those businesses whose customers and employees currently rely on parking in those surface lots are likely to be negatively impacted.

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<sup>1</sup> *Transportation Elasticities: How Prices and Other Factors Affect Travel Behavior*, Victoria Transport Policy Institute (TDM Encyclopedia), March 2007.

<sup>2</sup> Puget Sound Trends, *Commuting to the Region's Downtown Areas*, PSRC, March 2004.

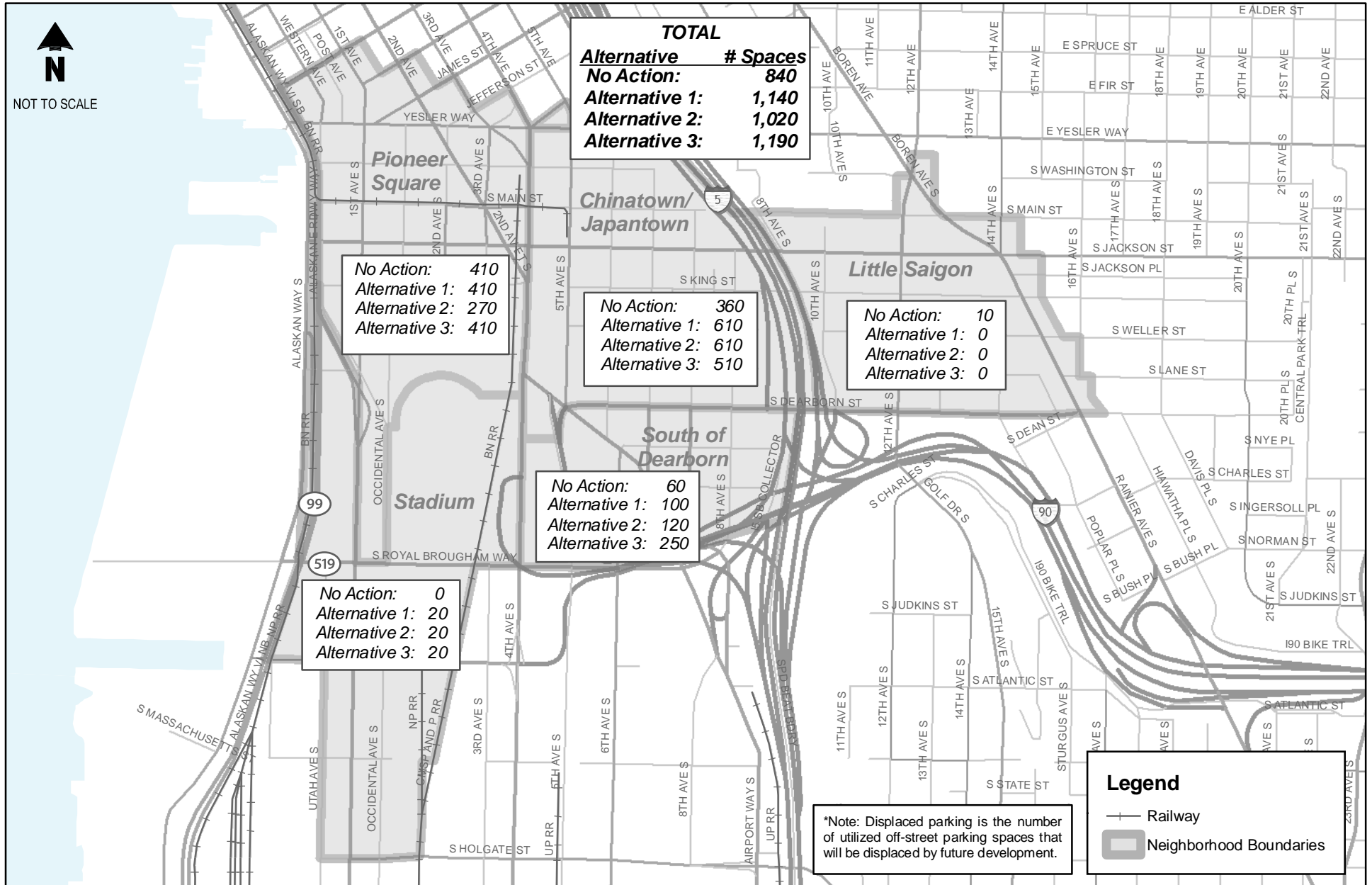


Figure 3-48

**Table 3-59  
Seattle Parking Code by Land Use**

Land Use	Downtown Zones <sup>1</sup>	Other Zones <sup>2</sup>	ITE Peak Demand Rates
Residential (per unit)	0 <sup>3</sup>	1.0 <sup>3</sup>	1.0
Office (per ksf)	1.0	1.0	2.4
Hotel (per room)	0.25	0.25	0.91
Retail	1.0	2.0	2.65
Restaurant (per ksf)	1.0 <sup>4</sup>	4.0	7.3

Source: Seattle Municipal Code and *ITE Parking Generation*, Third Edition.

1. All study zones except Little Saigon, South of Dearborn and part of the Stadium Area. Rate for hotel is standard for Seattle, as no maximum per room is specifically defined for Downtown Zones.
2. Little Saigon and South-of-Dearborn neighborhoods.
3. While the Downtown zones have no minimum or maximum requirement for residential uses, for other zones, for purposes of simplicity, one parking space per unit is assumed. Seattle code actually has varied requirements depending on the total number of units in a development, number of bedrooms in the units and income level (reductions allowed for low income housing).
4. For Chinatown/Japantown, restaurant requirements are 2 spaces per 1,000 for area over 2,500 sf.

### 2030 Action Alternatives (Alts. 1, 2, 3)

Under all of the Action Alternatives, the largest projected loss of utilized spaces due to development would be in the Chinatown/Japantown neighborhood, followed by the Pioneer Square neighborhood. Alternative 3 would result in some additional lost parking in the South-of-Dearborn neighborhood. Parking associated with office land use, as opposed to general commercial land use, would result in less of a disparity between parking demand and parking supply due to:

- The ability to shift office related travel modes to non-SOV alternatives compared to commercial related travel modes and;
- The disparity between the maximum requirements for off-street parking under the Land Use Code in Downtown zones and typical maximum parking demand for office and retail/restaurant land uses. In Downtown zones, non-residential uses may provide no off-street parking or up to a maximum of 1 space per 1,000 square feet. While parking demand Downtown appears to be much lower than the rates provided by ITE due to good transit service, the high cost of parking and limited parking supply, retail and restaurant parking demand are expected to generate a higher demand per square foot than office uses.

Alternative 1 has more office development identified than Alternative 3. Alternative 3 has the largest potential for non-office commercial development. Therefore, the development impacts to the availability and price of off-street parking would be more noticeable for Alternative 3 than Alternatives 1 and 2.

### ON-STREET PARKING

With future infill development and other losses incurred through road construction projects, demand for on-street parking would increase. However, due to its high existing utilization, it could not satisfy much of the demand. Given these demands, it is likely that currently unrestricted on-street parking would be converted to time-restricted paid parking, to encourage frequent turn-over. High turn-over spaces are suited to addressing retail customer needs but not employee needs for the work day. This strategy works well as travel alternatives like transit or biking are less feasible for retail customers than long-term employee commuters, as long as adequate transit service and bicycle facilities are provided. This strategy is echoed in Seattle's Comprehensive Plan parking goals, parking quantity policies and parking development standards policies.

### **2030 No Action Alternative (Alt. 4)**

Some on-street parking will be eliminated with the completion of the SR 519 Phase 2 project. Parking for approximately 100 vehicles on both sides of 3<sup>rd</sup> Avenue S., south of S. Royal Brougham Way will be eliminated by this project. The lost parking is a result of traffic being rerouted to 3<sup>rd</sup> Avenue S. to access the S. Royal Brougham Way grade-separated structure across the railroad tracks. Another 10 to 15 spaces would be lost along the west side of 1<sup>st</sup> Avenue S., north of S. Atlantic Street due to planned improvements at the S. Atlantic Street intersection.

Additional on-street parking will be eventually lost with the replacement of the Alaskan Way Viaduct. While the central waterfront portion of the viaduct is still under discussion, any Alternative will result in lost on-street and surface parking that is currently available to the public. According to the EIS for the project, approximately 220 to 650 on-street parking spaces and up to 120 off-street parking spaces would be lost. Some of these will be in the Pioneer Square neighborhood and Stadium Area. The Surface, Bypass and Tunnel alternatives result in the greatest loss, while the Rebuild and Aerial alternatives lose the least amount of parking. The City is considering aggressive parking management strategies, especially during the construction phase, to support transportation and transit speed and reliability.

The planned major projects are likely to include modifications to the management of the on-street parking where on-street parking is currently unlimited and/or free. For example, the free unrestricted and free hourly parking in the Little Saigon vicinity may convert to paid parking in order to ensure the turn-over and availability critical to new commercial needs. Other impacts to on-street parking from planned projects would depend on access, new loading zones, etc. For example, if a planned project required an additional access drive in an area that currently offers curbside parking, some of that curbside parking would be lost in the area of the new driveway and the surrounding clear zone.

### **2030 Action Alternatives (Alts. 1, 2, 3)**

Impacts to on-street parking would include those identified in the No-Action Alternative.

Alternative 1 concentrates development within the northernmost neighborhoods. On-street parking is mostly time-limited and paid parking in the Pioneer Square and Chinatown/Japantown neighborhoods. As such, there is only a modest opportunity to improve turn-over for on-street parking by conversion of free and unlimited parking. Some conversion however, is likely in the Chinatown and Little Saigon areas.

Alternative 2 is likely to convert more free and unlimited on-street parking to paid and time-limited parking in the Little Saigon and South-of-Dearborn vicinities than under the No-Action and Alternative 1 scenarios. Alternative 2 would likely include more conversion of on-street parking to paid and time-limited parking in the Stadium Area vicinity than any of the other Alternatives.

As with the No-Action Alternative (Alternative 4), some on-street parking would be potentially lost with new development projects if access points (curb-cuts) are moved or added in an area where on-street parking is currently available. Therefore, with Alternative 1, on-street parking is at risk in the Pioneer Square and Chinatown/Japantown neighborhoods. Under Alternative 2, more on-street parking is at risk in the Little Saigon and South-of-Dearborn areas than the other neighborhoods. Under Alternative 3, more on-street parking is at risk in the Stadium Area and South-of-Dearborn than in the other areas.

In addition to the conversion of free and unlimited on-street parking to higher turnover time-limited and paid parking, or the potential loss of parking due to new or moved curb-cuts, other impacts may result from transportation-related mitigation measures that could be implemented. For example, if, as a mitigation measure, some curb-side parking is converted to a transit lane, that on-street parking would be

lost for use by the general public. The following list identifies some possible mitigation measures that have the potential to impact the supply of on-street parking:

- Pedestrian bulb-outs that are installed at intersections or mid-block crossings in order to narrow the crossing distance for pedestrians as well as make crossing pedestrians more visible to approaching traffic. They are often installed where on-street parking is provided because the curb lanes are not used for through-traffic. Bulb-outs usually increase the clear zones from the intersections and can result in the loss of one to two parking spaces on each side, depending on the existing configuration.
- Transit related modifications that take on-street parking, such as additional transit stops, or bus queue bypass lanes at intersections. The greatest potential impact from transit related mitigation would be the conversion of curb lanes to transit lanes, in which case entire block-faces of on-street parking could be lost.
- Curb lanes which currently allow parking may be converted to general purpose through-lanes for added capacity. This would have a similar impact to on-street parking as the conversion of curb-lanes to transit lanes (see above).

### ***MITIGATION STRATEGIES***

Adverse parking-related impacts could be addressed by two approaches: reducing demand, and managing the supply, that are described by the following possible mitigation strategies.

#### **POSSIBLE MITIGATION STRATEGIES**

##### **Reduce Parking Demand**

Seattle has been successful in reducing parking demand in the Downtown core area. This is a result of several factors: limited parking supply, high parking prices, extensive transit coverage, free ride transit zone, bicycle services, pedestrian connections and TDM requirements for larger employers or newer buildings. Likewise, the demand for parking within the study area could be reduced by increasing transit service, providing pedestrian and bicycle improvements, and working with employers and developers to provide aggressive TDM programs. Reduced availability of parking supply typically results in increased parking costs. The shortfall in parking and/or higher parking costs would result in more people shifting modes. Incorporating flex-cars as part of TDM measures also would help reduce resident reliance on individual cars.

##### **Parking Management**

The City could expand management measures for on-street parking in order to support commercial businesses in the area. This could be done by instituting time limitations and paid hourly parking where appropriate. Added enforcement may be required to maximize effectiveness. Neighborhoods adjacent to the study area neighborhoods under development could be monitored for impacts of spill-over parking. Time restrictions and special restricted parking zones could be needed to discourage the spread of displaced parking demand to neighboring areas.

Along with converting free on-street parking to paid parking, the City also is able to install all-day paid parking that would effectively allow commuters and employees to park on-street in an area for a fee. The City would need to look at installing a combination of all-day and short-term parking in specific areas of South Downtown, such as Chinatown/Japantown and Little Saigon, in order to best manage the on-street parking. The revenues from the on-street parking could be used to help fund area-wide parking management programs (although this would require a change in current City policy with respect to use of parking revenues).

### **Short-Term Parking**

The City is looking at ways to enhance short-term (up to 2 to 4 hours) parking supply in Downtown, Pioneer Square and Central Waterfront buildings that is currently sold as commuter or monthly parking. This program, called the Center City Parking Program, will help to address the parking losses from the Viaduct replacement construction. The cornerstone of that mitigation program is an Electronic Parking Guidance System (see following paragraph), negotiating with Downtown building owners and major employers to convert existing off-street parking from commuter parking to short-term visitor use, and creating marketing tools that provide a consistent system for supporting short-term parking.

### **Dynamic Parking Signage (Electronic Parking Guidance System)**

The City can install variable message signs to indicate the location of available off-street public parking. Signs could be located at off-ramps from the highway system to help drivers navigate vehicles toward public parking areas. This strategy could also reduce excess circulation associated with searching for parking, while also assisting in managing parking on event days.

### **Curb Lane Management**

This strategy would aim at establishing standards for new developments whereby loading zones are located in alleys or side streets rather than on major streets. This would allow for additional space for on-street parking or eliminate additional on-street parking from being removed as a result of new development.

### **Pay Stations**

The remaining parking meters in the study area could be removed and replaced with pay stations. The pay stations allow greater flexibility in the form of payment. Additionally, it is easier to collect parking revenues and manage parking conditions with the pay station technology.

### **Modify Development Caps to Accommodate Lost Public Parking**

The City may want to consider a modification to increase the current parking caps in the Downtown zones to allow developers to provide additional short-term public parking to partially address the public parking losses. This approach could be more strongly encouraged through provision of incentives to provide such parking, or mandated by requiring provision of some of the displaced parking. Legal and financial aspects of such programs or requirements need to be explored further.

## ***SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS***

No significant unavoidable adverse impacts are identified.