

# SR 99: ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROGRAM

---

## Visual Quality Technical Memorandum S. Holgate Street to S. King Street Viaduct Replacement Project Environmental Assessment



# TABLE OF CONTENTS

Chapter 1 Summary.....	1
1.1 Project Description .....	1
1.2 Affected Environment and Project Effects .....	2
1.2.1 Duwamish Industrial Area.....	3
1.2.2 Stadium Area.....	3
1.2.3 Pioneer Square Historic District.....	5
Chapter 2 Methodology .....	9
2.1 Visual Assessment Methodology.....	9
2.1.1 Views from the Road .....	13
2.1.2 Views Toward the Road .....	14
2.1.3 Viewpoints .....	15
2.1.4 Visual Simulations .....	15
2.2 Studies and Coordination .....	21
Chapter 3 Affected Environment.....	23
3.1 Policy Context.....	23
3.2 Visual Context .....	23
3.2.1 Duwamish Industrial Area.....	23
3.2.2 Stadium Area.....	25
3.2.3 Pioneer Square Historic District.....	34
Chapter 4 Operational Effects, Mitigation, and Benefits .....	41
4.1 Operational Effects .....	41
4.1.1 Duwamish Industrial Area.....	41
4.1.2 Stadium Area.....	42
4.1.3 Pioneer Square Historic District.....	45
4.2 Operational Mitigation.....	47
Chapter 5 Construction Effects and Mitigation.....	49
5.1 Construction Effects.....	49
5.2 Construction Mitigation .....	49
Chapter 6 Indirect and Cumulative Effects .....	51
6.1 Indirect Effects.....	51
6.2 Cumulative Effects.....	51
6.2.1 Operational Effects.....	51
6.2.2 Construction Effects .....	52
Chapter 7 References.....	53

## LIST OF EXHIBITS

Exhibit 2-1. Visual Assessment Methodology .....	10
Exhibit 2-2. Landscape Elements in Views .....	16
Exhibit 2-3. City of Seattle Scenic View Routes .....	17
Exhibit 2-4. Visual Quality Park, Recreation, and Public Access Facilities .....	18
Exhibit 2-5. Visual Character Units.....	19
Exhibit 2-6. Visual Quality Viewpoints .....	20
Exhibit 3-1. View to the North, Alaskan Way Viaduct at S. Dearborn Street .....	26
Exhibit 3-2. View to the Northwest, Alaskan Way Viaduct at S. Charles Street .....	27
Exhibit 3-3. View to the West, S. Royal Brougham Way at First Avenue S.....	30
Exhibit 3-4. View to the Northwest, Railroad Way S. at First Avenue S. ....	33
Exhibit 3-5. View to the Southeast, Alaskan Way at S. Main Street.....	37

## ACRONYMS

City	City of Seattle
EIS	environmental impact statement
FHWA	Federal Highway Administration
Project	SR 99: S. Holgate Street to S. King Street Viaduct Replacement Project
SDOT	Seattle Department of Transportation
SIG	Seattle International Gateway
SR	State Route
WOSCA	Washington-Oregon Shippers Cooperative Association
WSDOT	Washington State Department of Transportation

This Page Intentionally Left Blank

---

# Chapter 1 SUMMARY

This technical memorandum describes the character of the existing landscape and visual resources for the SR 99: S. Holgate Street to S. King Street Viaduct Replacement Project (the Project), the visual changes the Project would create, and the extent to which the effects would be experienced by viewer groups within the study area. Potential mitigation measures are described, including ways to avoid or minimize visual quality effects as well as ways to restore and enhance visual quality. Existing condition photographs are provided for viewpoints that are representative of views from a number of locations or of visual effects that are particularly noteworthy.

The study area for this visual quality analysis consists of three visual character units relevant to this Project:

- The portion of the Duwamish Industrial Area north of S. Spokane Street and from the waterfront east to approximately Fourth Avenue S.
- The stadium area east of SR 99 between S. Atlantic Street and S. King Street.
- The Pioneer Square Historic District extending from the west side of Alaskan Way S. to the east between Railroad Way S./S. King Street and Columbia Street.

## 1.1 Project Description

Major features of the Project include:

- A single-level aerial structure to carry State Route (SR) 99 on a side-by-side configuration from S. Holgate Street to just north of S. Royal Brougham Way.
- An at-grade section extending about 300 feet north of the single-level aerial structure.
- A transition connecting the at-grade section to the existing double-level Alaskan Way Viaduct structure.
- At-grade crossings under the SR 99 aerial structure for S. Atlantic Street. S. Royal Brougham Way would no longer cross SR 99 to the west.
- Relocation of the switching (or tail) track serving the Seattle International Gateway (SIG) and Whatcom Railyards. The portion of the tail track north of S. Atlantic Street would be relocated to the west side of Alaskan Way S.

- A below-grade, two-lane, U-shaped roadway (undercrossing) north of S. Atlantic Street would loop underneath SR 99 and underneath the tail track to allow traffic to cross the tail track when trains are present.
- Widening S. Colorado Street from S. Massachusetts Street to S. Atlantic Street to allow enhanced access for truck traffic from the SIG Railyard to S. Atlantic Street and the U-shaped undercrossing beneath SR 99.
- Reconfiguring Alaskan Way S. to consist of separate northbound and southbound lanes on either side of the SR 99 roadway south of Railroad Way S.
- Providing new northbound and southbound transition structures to and from Alaskan Way S. south of S. King Street.
- Providing an off-street multi-purpose trail on the west side of the tail track as well as on the east side of the SR 99 roadway. The trail on the west side would be buffered from Terminal 46 to the west by a landscape area with trees. The trail on the east side would be buffered from the roadway and remote holding area for Seattle Ferry Terminal traffic by a landscape area with trees on both sides. A bicycle lane would be provided on the northbound and southbound surface streets.

## 1.2 Affected Environment and Project Effects

The analysis of effects for the Project includes three areas with distinct visual environment characteristics:

- The Duwamish Industrial Area
- The Stadium Area
- The Pioneer Square Historic District

The existing visual quality of the corridor is affected primarily by the presence of the existing aerial viaduct structure. This summary of existing conditions, as with the more detailed description in Section 3.2, assesses views from the road and views toward the road from the surrounding landscape. It also identifies views of specific significant natural and human-made features that are protected from specific viewpoints, parks, scenic routes, and view corridors according to the SEPA Policies and Procedures in Chapter 25 of the Seattle Municipal Code.

The summary below proceeds from south to north, describing the existing visual environment in “visual character units” described in Section 2.1.3. See Section 2.1, Visual Assessment Methodology, for a definition of terms used to describe visual effects.

## 1.2.1 Duwamish Industrial Area

### Affected Environment

The general visual character of this area is of large industrial buildings used for warehousing or manufacturing, as well as transportation facilities, including the BNSF railroad and major arterials. The visual context is cluttered with signs, overhead electrical distribution and communication lines, and several high-voltage electric transmission lines serving major electrical substations in the area.

#### Views from the Road

The view from the existing at-grade SR 99 between S. Spokane Street and S. Holgate Street is largely bounded by railyards on either side.

#### Views Toward the Road

The major viewing populations in the area are employees and persons passing through the area on north-south streets. All views from the Duwamish Industrial Area tend to lack a vivid visual focus, have low intactness due to the widely disparate range of building styles and conditions, and low visual unity, with many elements of visual clutter. The area is visually dominated by a few large buildings and by the cranes of the Port of Seattle terminals to the west, which are the major skyline features.

#### Light and Glare

The existing SR 99 roadway is lighted with standard street light fixtures in this area. The light from the highway is a minor source of light and glare compared to the higher intensity and mounting height of lighting for the railyard to the east and the Port of Seattle terminals to the west.

### Environmental Effects

Views from the road would remain essentially unchanged.

The Project would have little visual effect on this area, largely because of the low visual interest and lack of visual unity of the area. The proposed structures would generally be lower in elevation and less visually prominent and would have little effect on the overall visual character of the area.

## 1.2.2 Stadium Area

### Affected Environment

#### Views from the Road

Occupants of vehicles traveling northbound on the existing viaduct primarily experience views of the downtown skyline due to the orientation of the

roadway. Views to the northwest and west across the container terminals are centered on the West Point/Magnolia area and include Elliott Bay in the middle-ground. The peaks of the northern Olympic Mountains are visible on clear days in distant views.

The visual quality of the downtown skyline view for northbound vehicles is high, with the tallest buildings providing a vivid focus; other buildings provide a balanced and coherent composition. Views to the northwest have a vivid focus when the Olympic Mountains are visible. The significance of the water and mountain views for persons who regularly trace the route may be related to how the view is imprinted upon the memory as a landmark. The entire process of driving the existing viaduct from S. Holgate Street to S. King Street takes about 45 to 65 seconds, depending on speed, with opportunities to look at various orientations of the view during that period.

The views from the southbound lower-level traffic lanes are more oriented to the roadway or the southwest views of port and industrial facilities at Terminals 37 and 46 and Harbor Island. The view to the southeast includes industrial and loft buildings along First Avenue S. and the stadium complexes to the east.

#### Views Toward the Road

The viewing population of the exterior of the existing viaduct is largely composed of attendees at sporting events and persons passing through the area both on foot and in vehicles. The viewing population is largely concentrated on First Avenue S., the major north-south street, and on the two east-west streets through the area, S. Royal Brougham Way and S. Atlantic Street. The existing viaduct is generally blocked from line-of-sight from First Avenue S. by buildings, except along east-west streets where the view terminates at Port of Seattle terminals. From these east-west streets, multi-colored stacks of shipping containers are visible under the viaduct, and bright red Port of Seattle cranes tower above.

Views to the west lack elements that provide a vivid focus. The existing viaduct is a minor middle distance feature. It differs little in scale, form, and color, but disrupts the continuity of east to west views through the distraction of vehicles traveling on the two elevated levels.

For views from the stadiums, the existing viaduct is well below the view from the seats and is well below the line-of-sight to the land-water interface to the west at the edge of Terminal 46. The viaduct is a relatively minor element in views to the northwest of Colman Dock and Piers 54 through 59. The structures behind the viaduct are generally too distant a part of the field of view to be recognizable elements, or views are obstructed or blocked by the

viaduct. From Qwest Field there are limited opportunities for views to the west from upper levels. These views are largely blocked or obscured by buildings between First Avenue S. and Occidental Avenue S. Views from the west entry of the field down Railroad Way S. are essentially blocked by the ramps to the viaduct; in addition, the termination of that view is at transit sheds associated with Terminal 46, which have little visual interest.

#### Light and Glare

The lighting for the upper level of the existing viaduct is similar to normal arterial street lighting but elevated. For most viewers in this area, light and glare are blocked by adjacent buildings. The elevated light source is an additional intrusive source of glare for upper windows of buildings that would not be directly affected by lighting for surface streets.

#### **Environmental Effects**

Views from the road to the north would remain of downtown buildings. Views to the northwest of the peaks of the Olympic Mountains would largely be eliminated by the lower elevation of the roadway in relation to the height of stacked shipping containers at the Port of Seattle terminals to the west.

The Project, which consists of single-level aerial structures, a section of at-grade highway, and connections to the existing viaduct, would provide a complex set of built elements. However, the design would contribute little to the visual context because of the continued low degree of unity and coherence of views to the west, which are characterized by the multi-colored stacks of shipping containers and cranes used to load ships that provide the most memorable skyline feature.

The lower-elevation elements of the Project would not obscure views as much at the street level. The design would make little difference in views from upper levels of the stadiums; all elements would remain well below the line-of-sight to the land-water interface or distant views across Puget Sound to wooded hilltops with the peaks of the Olympic Mountains in the distance.

Highway lighting from the Project would be at a generally lower elevation and have little effect on the overall level of urban light and glare.

### **1.2.3 Pioneer Square Historic District**

#### **Affected Environment**

##### View from the Road

Views for vehicle occupants traveling northbound on the existing viaduct through the Pioneer Square Historic District are similar to those discussed for

the stadium area above. Views of the downtown skyline and the tallest buildings provide a vivid focus; other buildings provide a balanced and coherent composition. Views to the northwest can have a vivid focus when the Olympic Mountains are visible in the distance. Foreground views include Terminal 46 along Alaskan Way and stacked containers with the freight shed building of Pier 48 visible to the northwest.

Views to the east include buildings fronting First Avenue S. south of S. King Street. North of S. King Street, a truncated view is provided of the upper floors of the buildings within the historic district, with little opportunity to view the unity of the historic buildings or the milieu of the district as a whole.

The views from the southbound lower-level traffic lanes in this area include the buildings, stacked containers, and docked ships at Terminal 46 and Pier 48, with intermittent views of the West Seattle ridge in the background.

#### Views Toward the Road

The Pioneer Square Historic District consists largely of late 19<sup>th</sup> century and early 20<sup>th</sup> century brick buildings built in a consistent style. Views of the viaduct are available from east-west streets, which are perpendicular to the viaduct, and from adjacent to the viaduct.

The viewing population in the Pioneer Square area is a mix of tourists, office workers, residents, and other visitors to the area. It is one of the liveliest pedestrian-oriented neighborhoods in the city.

The existing viaduct is most prominent in street level views of the Pioneer Square Historic District down east-west streets. The visual context of S. King Street is tightly framed by three- to eight-story brick buildings. The street provides a unified and consistent corridor of urban development of a historic character. The existing viaduct contrasts in line, materials, scale, and character with the context of this historic area. The horizontal lines of the viaduct cut across and block the linear street character. The concrete structure contrasts in materials and color with the red brick that is the predominant building material in the Pioneer Square area. The greatest contrast in character is the presence of automobiles above grade level in an environment in which all activities are geared to the street level.

#### Light and Glare

The lighting for the existing viaduct upper level is similar to normal arterial street lighting. The presence of a lighted structure above grade level emphasizes the extent to which the structure cuts across the orientation of surface streets for nighttime views and the degree to which the viaduct is an intrusive element in this historic district. The elevated light source is an

additional intrusive source of glare for upper windows of buildings that would not be directly affected by lighting of surface streets.

### **Environmental Effects**

Views from the road to the north would remain of downtown buildings. Views to the northwest of the peaks of the Olympic Mountains would largely be eliminated by the lower elevation of the roadway in relation to the height of stacked shipping containers on the Port of Seattle terminals to the west.

Although the Project includes a variety of structure types and profiles, there would be little overall difference in the visual context. The lower-elevation elements of the Project would not obstruct views as much at the street level or from the loft buildings along First Avenue S. However, those views would be in the same context of low visual unity and coherence of the shipping terminals to the west dominated by multi-colored stacks of shipping containers and cranes, which are the dominant skyline feature. The existing ramps on First Avenue S. would continue to obscure most views from north of Railroad Way S. No substantial change from today's visual context in this area is anticipated.

Highway lighting from the Project would be at a generally lower elevation and have little effect on the overall level of urban light and glare.

### **Mitigation**

Mitigation of the extent to which the roadway, especially the elevated portions, contrasts in line, materials, scale, and character with the context of the urban area traversed can be included in project design standards.

Opportunities to provide a consistent visual palette include architecture, signing, lighting, and other elements. Such design elements could help to ensure that the visual composition of the roadway improvements is more unified with the built elements along the highway corridor.

Design guidelines would address structural elements and landscaping to soften and screen the roadway and structures. Another objective of the design guidelines would be the consistent treatment of retaining walls, sidewalks, medians, lighting, and other elements. Guidelines may also address the incorporation of artwork to provide visual interest.

This Page Intentionally Left Blank

---

## Chapter 2 METHODOLOGY

The analysis in this technical memorandum evaluates potential changes in visual quality for the Project. The analysis includes three levels of study:

- Views from the Road – The visual environment relating to the design of the roadway – the experience of users of the facility.
- Views Looking Toward the Road – The relationship of the Project to specific elements of the surroundings – the visual experience of persons looking at the Project.
- The relationship of the Project to the overall environmental context – the existing and planned character of the area based on plans and policies for future development.

### 2.1 Visual Assessment Methodology

The analysis in this technical memorandum was performed according to methods described in the Federal Highway Administration's (FHWA) *Visual Impact Assessment for Highway Projects* (FHWA 1988). In addition, the City of Seattle's environmental review criteria were used as a resource for the views of specific features designated for consideration and protection. The City's current Comprehensive Plan, the City's Land Use Code, and relevant neighborhood plans are referenced to gain an understanding of the City's urban design goals and aesthetic regulations. The Washington State Department of Transportation (WSDOT) *Roadside Classification Plan* (WSDOT 1996) also was referenced for policies regarding the design and management of the roadside.

The assessment of visual quality is concerned with both the character of the visual experience and the effect upon the viewer. For the purposes of this analysis, visual quality and aesthetics are analogous terms. The assessment of visual quality is subjective, from the perspective that the person perceiving the visual environment brings personal and cultural frames of reference to the discernment and evaluation of visual information. There is, however, broad agreement in federal, state, and local regulations as well as from research that establishes general public consensus of what constitutes a desirable visual environment.

The methods used to study visual quality for the Project follow FHWA visual effect assessment guidance. Three critical parameters of the aesthetic experience include:

- Visual Character

- Visual Quality
- Viewer Response

The assessment methodology is displayed in schematic format in Exhibit 2-1.

## The Visual Environment

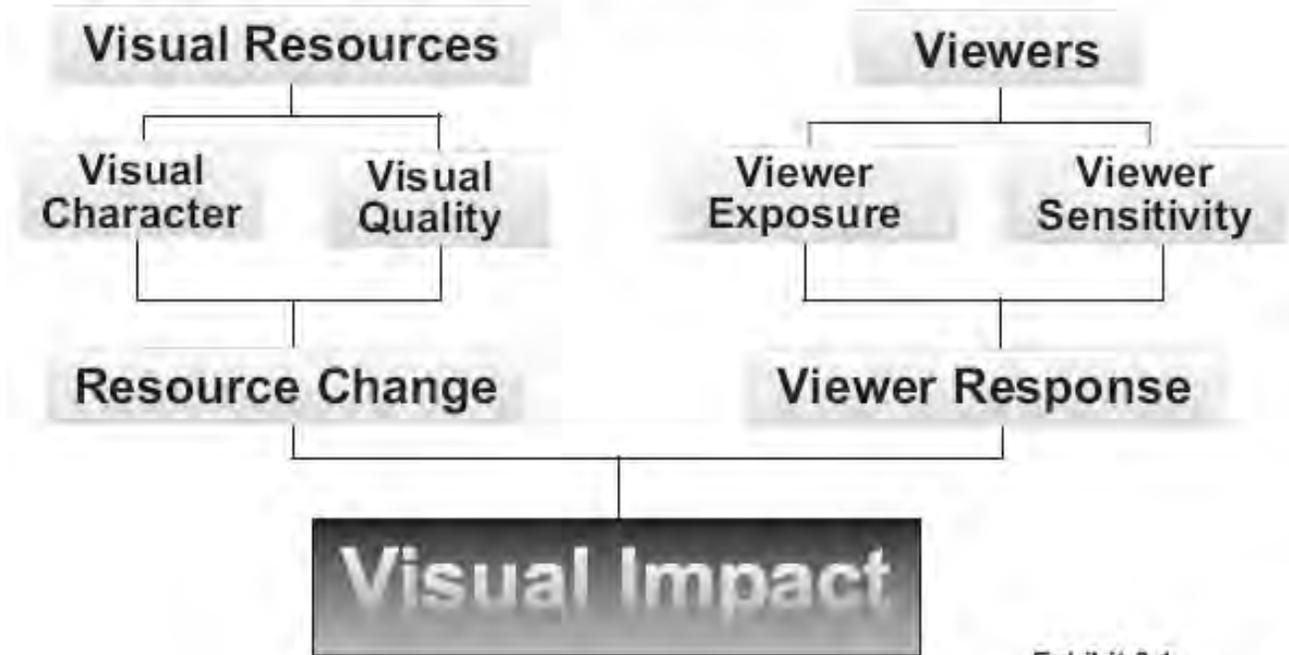


Exhibit 2-1  
Visual Assessment  
Methodology

**Visual Character** refers to identifiable visual information. Visual character may be distinguished both at the level of specific elements and at the level of relationships among elements. The first step in assessing visual character is to describe visual attributes and environmental features using objective descriptors (such as form, line, color, and texture).

Chapter 25 of the Seattle Municipal Code (SMC 25.05.675.P) identifies specific significant natural and human-made features, views of which are protected from specific viewpoints, parks, scenic routes, and view corridors. The specific features that are relevant to this context include Mount Rainier; the Olympic and Cascade Mountains; the downtown skyline; and major bodies of water, including Puget Sound and Elliott Bay. These features can be generalized into broader categories of land forms, water bodies, vegetation communities, land use, and development type.

Four key features are used to identify relationships between elements of the visual environment: dominance, scale, diversity, and continuity.

*Dominance* refers to the position of an individual element, or its extent or contrast among all the other elements of a view.

*Scale* refers to apparent size relationships between an element and the other components of its surroundings.

*Diversity* is a function of the number, variety, and intermixing of elements in a view.

*Continuity* refers to the maintenance of visual relationships between connected or related landscape features. The integration of these elements results in a complete description of the character of a view.

**Visual Quality** refers to assessing the value of the visual experience to the public. Studies of the American public and across cultures demonstrate strong agreement about preferred qualities of the visual experience (Jacques 1980; Kaplan 1985; Real et al. 2000). This consensus is exhibited in officially designated landscapes generally agreed to have high value, such as national parks, scenic rivers, scenic highway viewpoints, and designations such as the City's designation of significant natural and human-made features.

Visual quality is analyzed by evaluating vividness, intactness, and unity. These characteristics are consistently prominent in landscapes perceived by the general public as having high visual quality. This set of measures is similar to other systems that analyze human perceptions based on factors such as *complexity*—the variety or diversity in a scene as it relates to human interest; *coherence*—the extent to which the scene “hangs together” through repetition of elements, which facilitates comprehension; and *legibility*—the features that contribute to the recognition of an environment (Kaplan 1983).

For this analysis, these three measures are evaluated as described below.

*Vividness* describes the way landscape components may combine in distinctive and memorable visual patterns. For different landscapes, various elements may contribute to vividness.

For the purpose of this analysis, the City of Seattle's designated significant features are integrated into the analysis (SMC 25.05.675.P):

- Landforms – Mount Rainier, the Olympic and Cascade Mountains.
- Water forms – Puget Sound and Elliott Bay (Lake Washington, Lake Union, and the Ship Canal are components of views designated in Seattle codes that are not present for this Project).

- Man-made forms such as the downtown skyline, or major elements such as landmarks or vegetation masses.

Landscape elements in views from the vicinity of the project corridor include Elliott Bay in the middle distance, and the hilltops of Queen Anne Hill and Magnolia beyond. The farther distance features the wooded hills of Bainbridge Island and the Kitsap Peninsula, and farthest away, the peaks of the Olympic Mountains.

*Intactness* describes the integrity of natural and human-built visual patterns and the extent to which the landscape is free from encroaching elements. Encroaching elements may include a single eyesore or may include multiple elements.

*Unity* measures the visual coherence and compositional harmony of the landscape considered as a whole. It refers to the fit between elements of the landscape but does not connote uniformity in design or character.

**Viewer Response** is analyzed in terms of viewer exposure and viewer sensitivity.

*Viewer Exposure* refers to the physical location of viewer groups, the number of people exposed to a view, and the duration of their view. This includes both highway users and persons in the surrounding area.

*Viewer Sensitivity* refers to factors that affect the degree to which a viewer perceives elements of the environment and the extent to which those elements are important to the viewer. Viewer sensitivity is affected by factors such as the activities a viewer is engaged in; the visual context; and the values, expectations, and interests of a group of persons, or of a person involved in a particular activity or context.

Viewer exposure and viewer sensitivity work together for persons viewing the road from the context of other activities.

Generally persons engaged in elective activities are most sensitive to the visual environment. People who have chosen an activity for enjoyment, such as a tourist or someone engaged in a recreational activity, are often attracted to an area because of its visual features. They have ample time to stop and look at a scene in a leisurely fashion. Other elective activities such as shopping, dining, or attending a cultural or sporting event involve varying degrees of sensitivity to visual elements, depending on location, elements visible, time available, and mode of traveling to the site.

Residents in their homes typically exhibit a similar attraction to the visual amenities of an area. Residents are often among the most sensitive groups due to a high personal investment in the environment as well as regular

exposure. They may, however, become habituated to elements of a view, which might be intrusive or objectionable to those not exposed on a regular basis.

Employees at work tend to be less sensitive to the visual environment outside the work place when they are focused on work tasks. However, the surrounding environment is likely to be a factor if they have time to take a visual break and if they have window access to the outside environment. The visual environment may be important in their trip to and from work and during times they leave the work environment such as breaks or lunch. In general, office workers are more likely to be able to include access to the visual environment in their work activities than industrial workers.

Persons involved in travel are likely to be less sensitive to the surrounding visual environment because of the demands of driving and the short duration they are exposed to visual elements. In the case of regular commuters using a familiar route, the daily repetition of a relatively short-duration event may, however, lead to a great deal of familiarity, and they may place high value on a scene that is experienced only briefly. They also may become habituated to negative elements and focus more on positive elements.

### 2.1.1 Views from the Road

The physical character of the road is important both to driver function and satisfaction. The driver uses visual information from the roadside environment to assist in controlling, guiding, and navigating the vehicle. Highway alignment, roadway geometrics, landform configurations, vegetation, and structures all contribute to driver guidance. Excessive visual stimulation and complexity can distract the driver and decrease driver control. Conversely, monotony from lack of visual interest can decrease driver attention and thus diminish control. Difficulties with perception, attention, and distraction are a primary cause in over 40 percent of traffic accidents (WSDOT 2003).

The parameters of visual character, visual quality, and visual exposure are used to assess views available to drivers and passengers. Drivers and passengers also form impressions and memories from what is seen along the roadside, thus roadsides are important in establishing community and state identity. Americans have repeatedly ranked pleasure driving on scenic roads as one of their favorite pastimes. A mandate to provide safe, healthful, productive, and aesthetically pleasing surroundings is provided in both national and state environmental policies.

## 2.1.2 Views Toward the Road

### Visual Character Units

For this study, key views were selected to represent the range of views available in the project area. The view selection process included field reconnaissance of the corridor and assessment of potential visual character units from which the proposed improvements would be visible.

A visual character unit is a geographic area in which views of the subject have a similar context as defined by features of the setting, such as topography, the location of the viewer in relation to the object being viewed, the character of the landscape (such as vegetation cover or the character of the urban environment), and the role of the subject viewed in the landscape. The major landscape elements in distant views considered in the selection of landscape units include Elliott Bay in the middle distance to the west; the hilltops of Queen Anne Hill in the north; the hill and peninsula of the Magnolia area to the northwest; the wooded hills of Bainbridge Island and the Kitsap Peninsula in the west; and the peaks of the Olympic Mountains to the west and northwest, as shown in Exhibit 2-2. Other considerations used to identify these units include the following:

- Scenic features designated by the City of Seattle.
- Scenic view routes, which are shown for the project vicinity in Exhibit 2-3.
- Public parks, recreational facilities, and facilities such as trails that provide the opportunity for congregation of potential viewers, which are shown for the project vicinity in Exhibit 2-4.

Visual character units were evaluated after review of photographs of various viewpoints in various areas and extensive consultation with City of Seattle staff during preparation of the *Alaskan Way Viaduct and Seawall Replacement Project Draft Environmental Impact Statement (EIS)* in 2002. Technical memoranda were prepared by the consultant and reviewed by the project partners in the process of selection of visual character units and views.

Visual character units relevant to this Project and depicted in Exhibit 2-5 are:

- The Duwamish Industrial Area.
- The stadium area east of SR 99 between S. Atlantic Street and S. King Street.
- The Pioneer Square Historic District extending from the west side of Alaskan Way to the east between Railroad Way S./S. King Street and Columbia Street. (The boundaries of the City of Seattle Preservation District differ from the visual unit as shown in Exhibit 2-5.)

### 2.1.3 Viewpoints

A series of typical views within each visual character unit was selected to illustrate locations where:

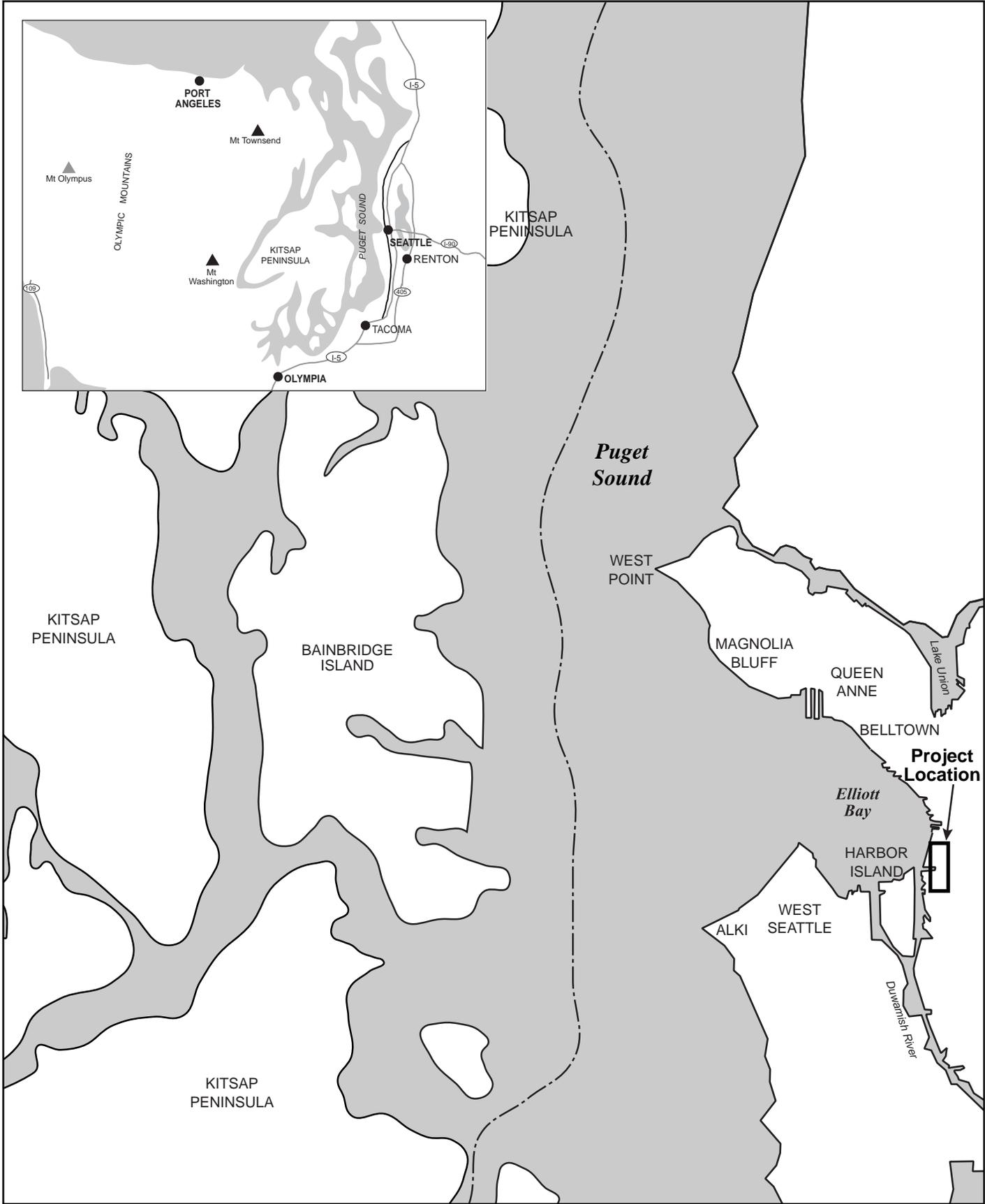
- Significant numbers of viewers are present,
- Representative features of the existing viaduct and the proposed improvements are prominent, or
- The visual quality of the views is high.

Not all potential viewpoints are discussed. The selected viewpoints are designed to provide typical views and are indicated in Exhibit 2-6.

### 2.1.4 Visual Simulations

Photographs of existing conditions were taken to reproduce the normal, static field of view of humans at the scale of a standard sheet of paper at normal reading distance. This provides an accurate representation of the scale of a structure in relation to other objects seen from the viewpoint. It does not, however, reproduce the entire field of view perceived by a human observer. Rather than the instantaneous fixed view provided by a camera image, the human process of viewing includes rapid movement of the eyes in a scanning motion. This scanning process establishes the context for a scene, and by repeatedly rescanning the most informative parts of an image, certain elements of a scene become the focus of the visual content (Yarbus 1967). In most cases, movement of the head and the body also increase the field of vision. The lens of the human eye also has the capability of changing its optical power and focusing on a much smaller field of vision (Sekuler and Blake 1994). The process of scanning for content and the focusing mechanisms of the eye account for the common observation that photographs often do not show scenic features, such as a mountain peak, as prominently as recalled by an observer.

For this analysis, visual simulations were not prepared. The low level of existing visual quality from most viewpoints and the relatively modest adverse effects, coupled with general reductions in the size and scale of most of the proposed facilities, allow adequate description of effects in relation to existing conditions without simulations showing details of future conditions.



AWV/554-1585-030/AY(43) 4/2/08

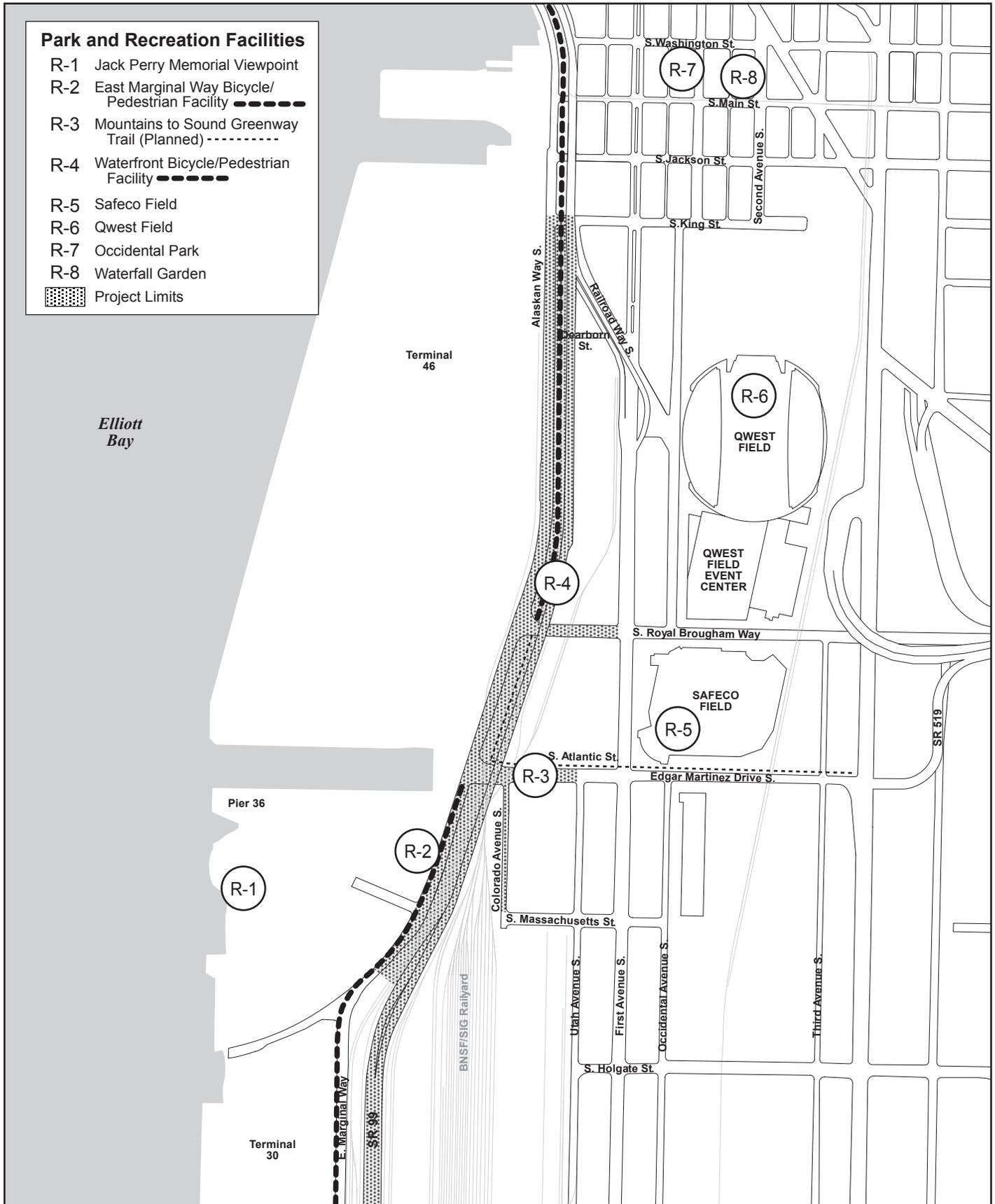


**Exhibit 2-2  
Landscape Elements in Views**

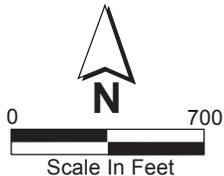


**Park and Recreation Facilities**

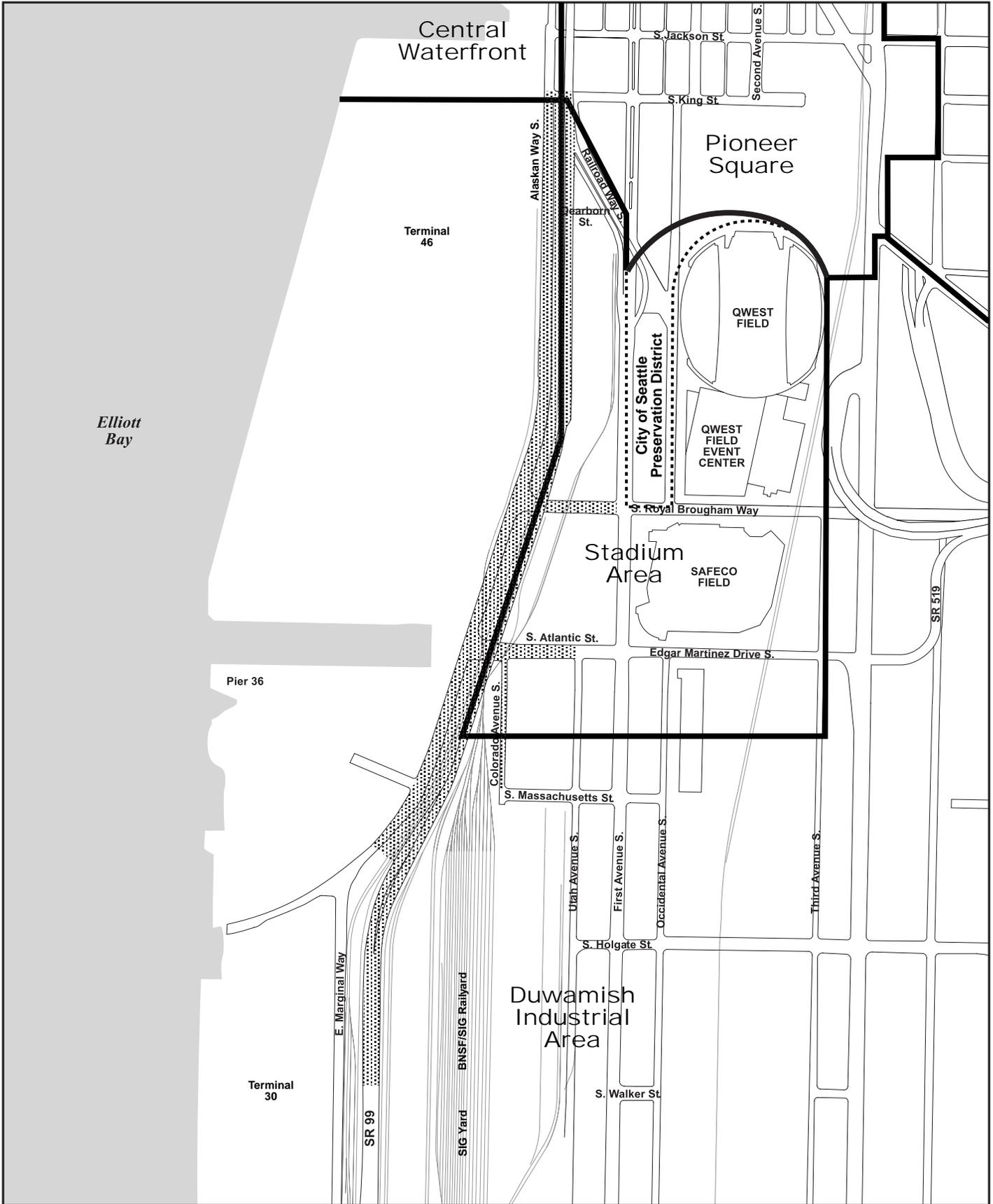
- R-1 Jack Perry Memorial Viewpoint
- R-2 East Marginal Way Bicycle/  
Pedestrian Facility
- R-3 Mountains to Sound Greenway  
Trail (Planned)
- R-4 Waterfront Bicycle/Pedestrian  
Facility
- R-5 Safeco Field
- R-6 Qwest Field
- R-7 Occidental Park
- R-8 Waterfall Garden
- Project Limits



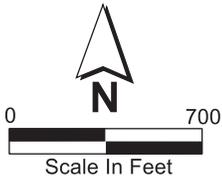
554-1585-030/BW(01) 5/20/08



**Exhibit 2-4  
Visual Quality  
Park, Recreation, and  
Public Access Facilities**



AWV/554-1585-030/BW(01) 5/20/08



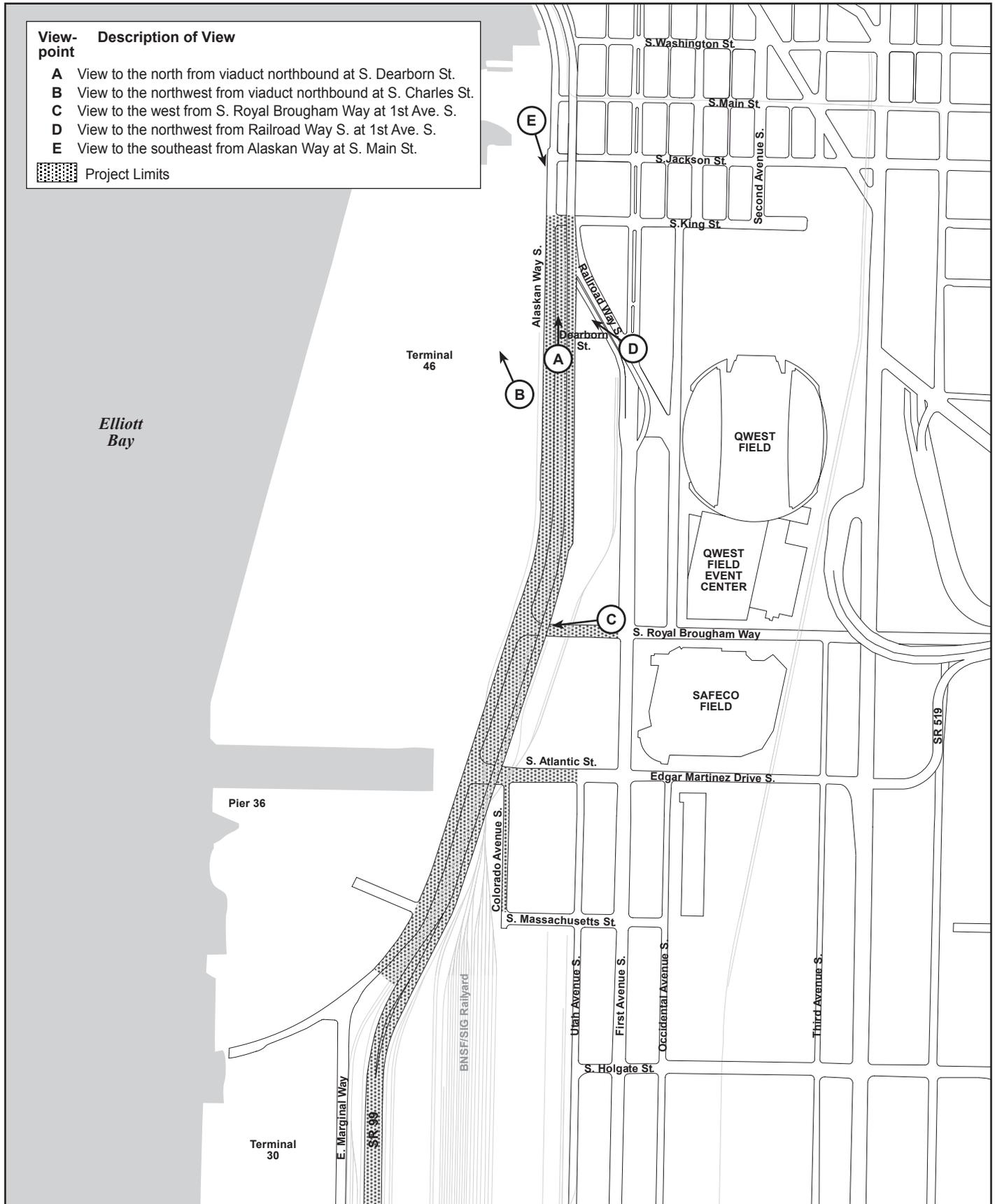
-  Visual Character Unit
-  City of Seattle Pioneer Square Preservation District Boundary Extending South of National Register Historic District
-  Project Limits

**Exhibit 2-5  
Visual Character Units**

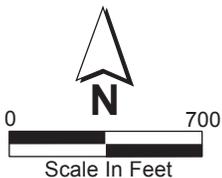
**View-point**    **Description of View**

- A** View to the north from viaduct northbound at S. Dearborn St.
- B** View to the northwest from viaduct northbound at S. Charles St.
- C** View to the west from S. Royal Brougham Way at 1st Ave. S.
- D** View to the northwest from Railroad Way S. at 1st Ave. S.
- E** View to the southeast from Alaskan Way at S. Main St.

 Project Limits



554-1585-030/BW(01) 5/20/08



**Exhibit 2-6  
Visual Quality  
Viewpoints**

## 2.2 Studies and Coordination

The context for the visual quality analysis was established by consulting a number of existing policy documents and studies that establish the land use policies and intended character of the corridor. The studies used in this evaluation of visual quality include the following:

- City of Seattle, Comprehensive Plan, 2004
- City of Seattle, Downtown Plans, 1999-2004
- City of Seattle, Shoreline Master Program, 1987 and supporting studies
- City of Seattle, Park and Open Space Plan, 2006
- City of Seattle, Pedestrian/Bicycle Plans and routes, 2007
- City of Seattle, Duwamish Manufacturing and Industrial Center Neighborhood Plan, June 2000
- City of Seattle, Downtown Urban Center Neighborhood Plan, June 1999
- City of Seattle, Pioneer Square Neighborhood Plan, November 1998
- City of Seattle, Land Use Code
- City of Seattle Downtown Design Guidelines
- City of Seattle 2006 Central Waterfront Concept Plan, Mayor's Recommendation
- City of Seattle, Shoreline Master Program, Shoreline Substantial Development Permit records for private and public projects within the shoreline
- WSDOT Roadside Classification Plan
- Washington Highway Beautification Act (RCW 47.40.010)
- Washington Transportation Commission Policy 6.3.6
- Federal Highway Beautification Act of 1965 (23 CFR 750)
- ISTEA Transportation Enhancement Program (23 USC 101(g) 133(b))

Collected information was confirmed by site reconnaissance and meetings with local jurisdictions (largely conducted between 2002 and 2007 as part of the 2004 Draft and 2006 Supplemental Draft EIS preparation for the Alaskan Way Viaduct and Seawall Replacement Project), including:

- Seattle Parks and Recreation
- Seattle Department of Transportation
- Seattle Department of Planning and Development
- Seattle Office of Arts and Cultural Affairs

- Port of Seattle
- Washington State Ferries

Coordination with the City of Seattle and FHWA initially focused on visual character unit and viewpoint designation. Elements of local plans and policies that were important in selecting visual character units and viewpoints include:

- Designation of specific significant natural and human-made features in Chapter 25 of the Seattle Municipal Code (SMC 25.05.675.P), including Mount Rainier; the Olympic and Cascade Mountains; the downtown skyline; and major bodies of water, including Puget Sound and Elliott Bay.
- Downtown View Corridors.
- Scenic Routes.
- Green Streets.
- Park and recreation facilities and areas where plazas and other open spaces are available to the public as open space requirements of the City's land use regulations.

---

## Chapter 3 AFFECTED ENVIRONMENT

### 3.1 Policy Context

SR 99 through the project area is classified “Urban” in the WSDOT *Roadside Classification Plan* (WSDOT 1996). A roadside classified as urban is characterized by elements that mirror the character of adjacent land use. The urban landscape is a predominantly built environment. Vegetation is mostly nonnative (ornamental) trees, shrubs, and groundcover, with remnants of native vegetation. There is a consistent, refined appearance throughout all management zones. Policies for design and management of these roadways include the following guidelines:

- Design structures to provide visual continuity and enhance the urban environment; give special attention to architectural detail.
- Structural screens or fences may be used to screen views where right-of-way is limited.
- Consider scenic views when locating signs.
- Use vegetation to enhance architectural elements.

Opportunities to apply these elements to the existing viaduct are limited because of the character of the structure, which was built in the early 1950s.

The SR 99 corridor is also designated a City of Seattle Scenic Route, as shown in Exhibit 2-3.

The following analysis of visual quality of existing conditions proceeds up the corridor from south to north and is organized by the visual character units identified in Exhibit 2-5.

### 3.2 Visual Context

Visual quality of the section of the SR 99 corridor affected by the Project is discussed separately for the following visual character units:

- Duwamish Industrial Area
- Stadium Area
- Pioneer Square Historic District

#### 3.2.1 Duwamish Industrial Area

The general visual character of this area is of large industrial buildings used for warehousing or manufacturing, as well as transportation facilities, including the BNSF railroad and major arterials. The tallest building in the

area is Starbucks Center at S. Lander Street and First Avenue S., which is approximately 200 feet high and the visually dominant landmark in the area. Most buildings are the equivalent of two to three stories in height. Even single-story warehouse and manufacturing buildings tend to be a minimum of 30 to 45 feet in height to accommodate stacked pallet storage or manufacturing processes. Buildings in the area represent a wide range of ages, styles, and maintenance. The visual context is cluttered with signs, overhead electrical distribution and communication lines, and several high-voltage electric transmission lines serving major electrical substations in the area.

#### Views from the Road

The view from the existing at-grade SR 99 between S. Spokane Street and S. Holgate Street is largely bounded by railyards on either side. When railroad cars are not parked to the west, Port of Seattle container terminals are visible.

#### Views Toward the Road

The major viewing populations in the area are employees and persons passing through the area on north-south streets. For the most part, persons on SR 99 would include employees commuting to and from work and commercial and private drivers passing through the area.

The through streets closest to SR 99 are First Avenue S. and E. Marginal Way S. The view from First Avenue S. is almost entirely a corridor of industrial buildings. Views down east-west streets generally terminate at railyards. Cranes from the Port of Seattle container terminals on the Duwamish Waterway dominate the skyline with the wooded West Seattle hilltop as background. E. Marginal Way S. is designated by the City of Seattle as a Scenic View Route. It is developed with sidewalks and street trees on the west side where it is framed by Port of Seattle container terminals, characterized by stacked shipping containers, warehouse buildings, and large cranes. Rail lines are located directly east of the roadway. These lines generally are occupied by several rows of parked railroad cars.

SR 99 currently transitions from a surface highway to an aerial double-level structure at S. Holgate Street. The views from the at-grade portion of the roadway are of parked railroad cars or railyards on both sides of the highway. Views from the viaduct are discussed below for the stadium area.

All views from the Duwamish Industrial Area tend to lack a vivid visual focus, have low intactness due to the widely disparate range of building styles and condition, and have low visual unity, with many elements of visual

clutter. The SR 99 corridor in both its aerial and at-grade sections represents little departure from the visual quality of the visual environment.

No photographic visual depiction of the visual context of the existing highway is provided for this area because the SR 99 facilities are generally not visible from surrounding public areas or are not a substantial element of the view.

#### **Light and Glare**

The existing SR 99 is lighted with standard street light fixtures in this area. The light from the highway is a minor source of light and glare compared to the higher intensity and mounting height of lighting for the railyard to the east and the Port of Seattle container terminals to the west.

#### **3.2.2 Stadium Area**

The Safeco Field baseball park extends between S. Atlantic Street and S. Royal Brougham Way from First Avenue S. to the rail lines west of Fourth Avenue S. Qwest Field extends north of S. Royal Brougham Way to about S. King Street. These structures visually dominate the area.

#### **Views from the Road**

Occupants of vehicles traveling northbound on the existing viaduct are likely to primarily experience views of the downtown skyline. The orientation of the roadway south of S. Royal Brougham Way places the Bank of America Tower in the center of the field of vision. Between S. Royal Brougham Way and Yesler Way, the viaduct is on a north-south orientation and the Washington Mutual Tower is centered in the view, as shown in Exhibit 3-1. Views to the northwest and west across the container terminals are centered on the West Point/Magnolia area and include Elliott Bay in the middle-ground, as shown in Exhibit 3-2. The peaks of the northern Olympic Mountains are visible on clear days in the background; from south to north they include Mt. Washington, The Brothers, Mt. Constance (in the middle and largest), and on the far north end Mt. Townsend.

For a driver to see the Olympic Mountains to the west and northwest requires looking away from the orientation of the roadway. These views are readily available to passengers during the entire drive over the viaduct. The drive on the existing viaduct within the project area requires between 45 and 65 seconds, depending on speeds and congestion. (Traversing the entire viaduct from S. Holgate Street to the Battery Street Tunnel requires about 2.5 to 3 minutes.) However, most vehicles using the viaduct are occupied only

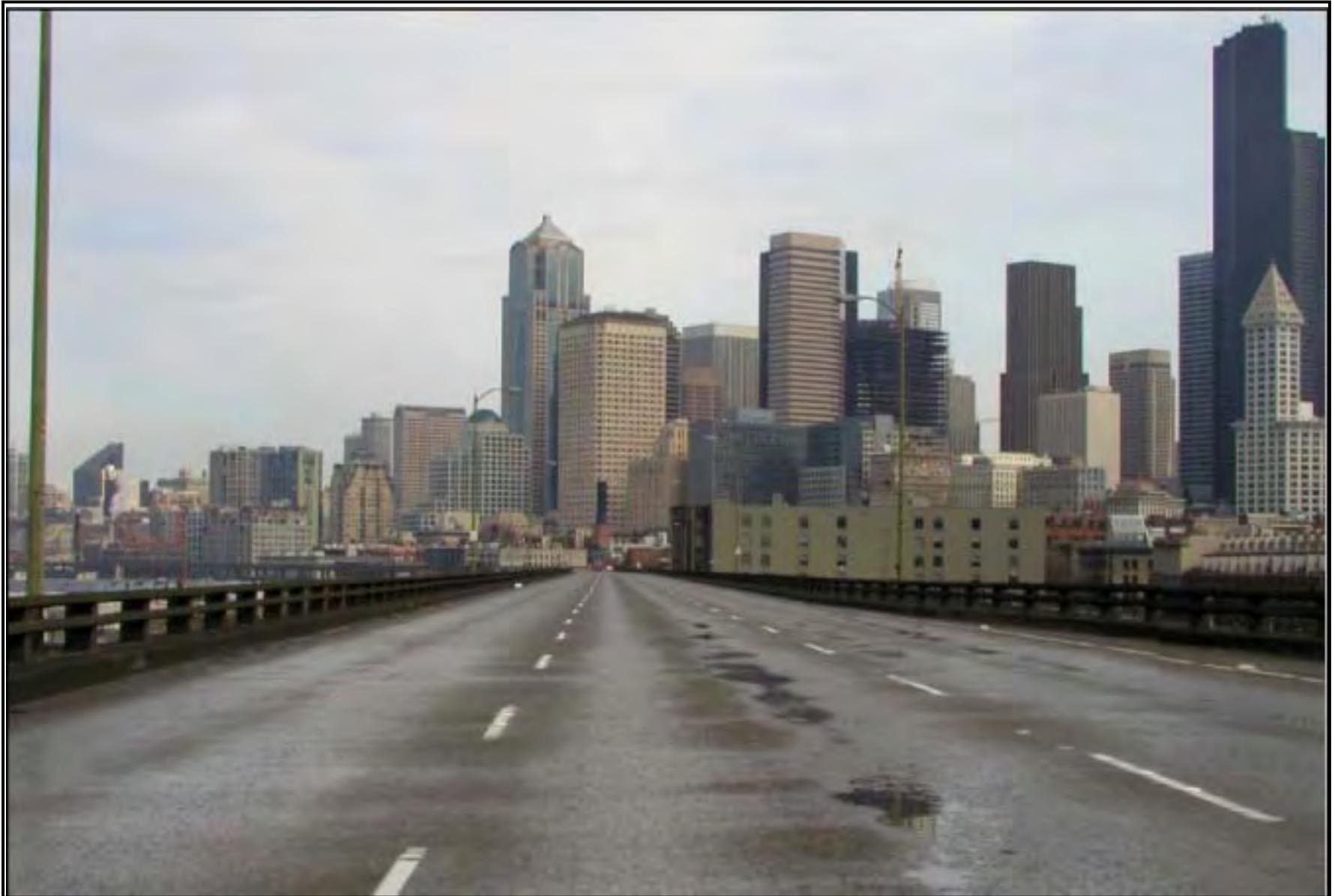


Exhibit #:

Title:

**3-1**

View to the North, Alaskan Way Viaduct at S. Dearborn Street

Existing Condition



Exhibit #:	Title:
<b>3-2</b>	View to the Northwest, Alaskan Way Viaduct at S. Charles Street
	Existing Condition

by the driver, and drivers are less likely to turn their attention from the orientation of the roadway, except for brief glimpses. This portion of the roadway, however, presents few driving challenges from maneuvering traffic and is likely to allow most drivers an opportunity to divert attention to the views to the west for brief periods. When container ships are loading at Terminal 46, they substantially block middle-ground views of Elliott Bay to the west and northwest.

Views to the east and northeast from the at-grade portion of the roadway feature the railroad cars and stacked shipping containers of the BNSF railyard directly east of the highway. The nine-story Starbucks Center with its distinctive lighted crown is east of the roadway and is generally a peripheral element of both the northbound and southbound views. The tall buildings in the downtown skyline are visually dominant in views from the roadway both to the north and northeast. Views to the east feature the high buildings on First Hill and Beacon Hill as the dominant elements. The distinctive arches that support the roofs of Safeco Field and Qwest Field are visually interesting but remain peripheral elements in the northbound views, which are centered on the downtown skyline. At the transition from the at-grade to aerial structures, the curve of the roadway places the sports stadiums close to the direct line of sight for northbound traffic for several blocks until the viaduct curves to its north-south orientation north of S. Royal Brougham Way. The roofline arches of the stadiums frame the easterly margin of near and middle views. The Bank of America Tower, the tallest building in downtown Seattle, is centered in the view down the roadway and is the dominant visual focus of northbound views.

The visual quality of the view to the north of the downtown skyline view is high, as shown in Exhibit 3-1. The tallest buildings provide a vivid focus, while other buildings are similar in visual character and provide a balanced and coherent composition. The Smith Tower is visible along the eastern margin of the view to the north. The Space Needle is also visible in the distance to the northeast. These two designated City of Seattle historic landmarks are moderate in scale as compared to high-rise towers in the downtown that dominate the view to the north. Other designated historic landmarks, such as the Exchange Building, are visible but are nestled among taller buildings and form part of the general background of downtown buildings.

Views to the northwest have a vivid focus when the Olympic Mountains are visible. Without the distant view of the mountains, the view still encompasses the water areas of Elliott Bay and Puget Sound to the left and the downtown skyline to the right, which have great compositional interest. The significance

of the water and mountain views for persons who regularly trace the route may be related to how the view is imprinted upon the memory as a landmark. It likely takes very little time or distraction from driving to glance at the view and derive aesthetic pleasure from its elements. As the vehicle moves to the north, additional elements unfold, which likely add to the positive aesthetic experience.

The views from the southbound lower-level traffic lanes are more oriented to the roadway or the view to the southwest. The southwest views in this area include port and industrial facilities at Terminals 37 and 46 as well as Terminal 18 on Harbor Island, across the Duwamish East Waterway. The Port of Seattle cranes are the most vivid element of these views. Views to the side require orientation away from the direction of movement and are interrupted by vertical support elements. The vertical range of views is constricted by the upper deck and the height of railings on the lower deck. The view to the southeast includes industrial and loft buildings along First Avenue S. and the stadium complexes to the east.

#### **Views Toward the Road**

The viewing population of the exterior of the viaduct is largely composed of attendees at sporting events and persons passing through the area on First Avenue S. and S. Royal Brougham Way, which each have daily volumes of about 13,000 average daily trips. The existing viaduct is generally blocked from line-of-sight views from First Avenue S. by buildings between the viaduct and First Avenue S. Where it is visible, it is an extended horizontal element above a long, low warehouse building. It is visible where S. Atlantic Street and S. Royal Brougham Way cross under the viaduct. S. Royal Brougham Way terminates at a Port of Seattle terminal where multi-colored stacks of shipping containers are visible under the viaduct and bright red Port of Seattle cranes tower above. S. Atlantic Street terminates at the U.S. Coast Guard facility, at Pier 36, specifically at a neutral gray three-story building with considerable rooftop visual clutter from antennas. There are no backdrop views behind these features.

The existing viaduct is a minor element of views to the west down S. Royal Brougham Way between Fourth and Occidental Avenues S., where it is designated a City of Seattle Scenic View Route, as shown in Exhibit 2-3. This street section is dominated by the bulk of Safeco Field and the Qwest Field Event Center that towers over the street from each side. As shown in Exhibit 3-3, the existing viaduct is a visible but minor element of the view to the west, because of the lack of a memorable visual focus and the lack of unity in the view of stacked shipping containers.



Exhibit #:	Title:
<b>3-3</b>	View to the West, S. Royal Brougham Way at First Avenue S.
	Existing Condition

The views of the existing viaduct for pedestrians at the street level in the vicinity of Safeco Field are most significant from the corners of First Avenue S. with S. Royal Brougham Way and S. Atlantic Street, where entrances to the ballpark are located. The visual character of the view to the west is dominated by the cranes in the background and the low-rise buildings in the foreground facing the ballpark across First Avenue S. (see Exhibit 3-3). These buildings contain a restaurant with exterior seating and a retail store. Neither of these elements provides a vivid focus. The street frontage down both S. Royal Brougham Way and S. Atlantic Street alternates between buildings and parking lots. There are street trees on S. Royal Brougham Way, but the short block does not provide the sense of a unified corridor due to the number of disparate elements, including uncoordinated signs, a variety of overhead utility lines, and an unremarkable asphalt roadway section. The distance from First Avenue S. to the viaduct is longer on S. Atlantic Street by approximately one block, but lacks elements that would provide unity, such as continuous street trees or consistent building frontages.

The Bemis Building at the corner of S. Atlantic Street and Colorado Avenue S. is a prominent early 20<sup>th</sup> century brick building that is somewhat taller than the adjacent viaduct. It is not, however, part of a continuous or homogenous street corridor and therefore functions as an isolated element. The more interesting view available for pedestrians along First Avenue S. outside of Safeco Field is to the north, where the downtown skyline provides a vivid focus.

The view for attendees at baseball games from the outdoor viewing areas on the west side of the ball field at the 300 level includes the existing viaduct as a linear feature. The viaduct is above the roof height of buildings across the street on First Avenue S. and is a linear feature that stretches across most of the field of vision. The viaduct blocks the direct line of sight to the water's edge at Elliott Bay, but does not block or obstruct views of Elliott Bay, Alki Point, or distant views of the wooded hills of the Kitsap Peninsula and the more distant peaks of the Olympic Mountains. Terminal 46 stacked containers and docked ships obstruct some of the range of views of Elliott Bay but do not generally obstruct distant views of the Olympic Mountains. In the context of the lack of visual unity and complexity of the views of the container terminals to the west, the linear features of the viaduct have little effect on visual quality. Elliott Bay, the distant views of wooded hills and the Olympic Mountains, and the tall buildings in the downtown skyline to the northwest and north are the most prominent features. The existing viaduct is a minor close to middle-distance feature. It differs from other elements in scale, linear form, and color, but does not disrupt the low level of unity or change the visual interest of the scene.

The Qwest Field complex consists of two parts: the Event Center which fronts on S. Royal Brougham Way, and Qwest Field about a block to the north. The Event Center and Qwest Field front to the west on Occidental Avenue S., which is a block east of First Avenue S. Views of the existing viaduct for pedestrians at street level are blocked by a row of loft buildings that front First Avenue S. The main entrance to Qwest Field is oriented to the north, but a secondary northwest entrance is aligned with Railroad Way S., a diagonal street extending from Occidental Avenue S. to Alaskan Way S.

The view from First Avenue S. down Railroad Way S. is depicted in Exhibit 3-4. The ramps from First Avenue S. to the existing viaduct are on the south side of Railroad Way S. These ramps are the dominant feature of the view to the northwest from the stadium entry and tend to obscure or visually overpower the surrounding buildings. The Triangle Hotel at the northwest corner of First Avenue S. and Railroad Way S. is visible, but obscured by the ramps. This building is a designated City of Seattle historic landmark<sup>1</sup> and is listed on the National Register of Historic Places (National Park Service 2007). Views for pedestrians at the Occidental Avenue S. frontage of the stadium where there are arcades and multiple entrances is dominated by the historic brick loft buildings facing the street. Where there are vacant lots providing parking areas, the viaduct is visible as a linear element lower than the adjacent buildings or cranes on Terminal 46. The view with greatest visual interest for pedestrians along Occidental Avenue S. outside of the stadium is to the north, where the downtown skyline provides a vivid focus.

The view to the west for attendees at football games or other persons leasing the space on the Sky Deck level on the west side of the stadium includes the existing viaduct as a linear feature extending from S. Atlantic Street to Railroad Way S. The viaduct is largely below the line of sight to the water's edge. The stacked containers and port cranes at Terminal 46 are the dominant features in near to middle views. The viaduct is well below the line of sight to distant mountain views. The buildings west of the stadium are generally lower than the Sky Deck and the west-facing corridors, lounges, and lofts of the Club Level. The six-story Palmer Building, which blocks views to the west, is approximately even with the south end of the stadium. The views from the Club Level are of most of the viaduct from the Palmer Building to Railroad Way S., with lower levels partially obscured in places by buildings

---

<sup>1</sup> Seattle Ordinance 106141



Exhibit #:	Title:
<b>3-4</b>	View to the Northwest, Railroad Way S. at First Avenue S. Existing Condition

between First and Occidental Avenues S. The containers and cranes of Terminal 46 are higher than the line of sight over the viaduct. These levels also have a substantial view down the Railroad Way S. corridor that are dominated by the existing ramps with the viaduct in the background. The view of the existing viaduct is close to the line of sight to distant features from this level.

The viewing population in this area is likely to be primarily composed of attendees of sports events and persons driving local streets. Pedestrian volumes are unknown, but the seating capacity of Safeco Field is 47,000. The majority of Safeco Field attendees can be expected to enter and exit along First Avenue S. at the S. Royal Brougham Way and S. Atlantic Street entrances (Washington State Major League Ballpark Public Facilities District 1997). Qwest Field is designed to seat 67,000 to 73,500 people, depending upon the type of event (Seattle Seahawks Webpage 2007). Both pedestrians and vehicle occupants are likely to be sensitive to the surrounding visual environment because they are involved in elective activities and have chosen the destination because of specific amenities they plan to enjoy. Some persons in stadium complex seats enjoy views of the downtown, Elliott Bay, and the Olympic Mountains. The existing viaduct, however, is well below the view from the seats.

#### **Light and Glare**

The lighting for the existing viaduct upper level is similar to normal arterial street lighting but elevated. For most viewers in this area, light and glare is blocked by adjacent buildings. The elevated light source is an additional intrusive source of glare for upper windows of buildings that would not be directly affected by lighting for surface streets.

### **3.2.3 Pioneer Square Historic District**

This area consists largely of late 19<sup>th</sup> century and early 20<sup>th</sup> century brick buildings built in a consistent style. Views of the viaduct are available from east-west streets, which are perpendicular to the viaduct, and from adjacent to the viaduct. Topography is generally flat.

Although only a small portion of the Project would be within or adjacent to the Pioneer Square Historic District, the following discussion provides a broad overview of the historic district to provide an appropriate context.

The Pioneer Square area consisted largely of storage and warehouse uses adjacent to Alaskan Way when the viaduct was constructed in the early 1950s. The area had been in economic decline for several decades as new development in the downtown moved further north. Faced with virtually no

pressure for redevelopment, the district's remarkable stand of turn-of-the-century buildings remained. In 1970, through the efforts of a solid grass-roots movement, Pioneer Square was designated a National Register Historic District and Seattle's first preservation district. A special review board, the Pioneer Square Preservation Board, was created and guidelines were developed to preserve the area's architectural and historic character and to ensure sensitive restoration of buildings for economically viable purposes.

The visual context of the area has changed substantially since the existing viaduct was constructed. Alaskan Way itself has transitioned from a roadway shared largely by railroad tracks and truck traffic related to the port and light industrial use to a corridor that carries pedestrians along the waterfront, with sidewalks, street trees, and a multi-purpose trail. The Pioneer Square area has transitioned to a balanced mix of tourist, office, and residential uses and is one of the liveliest pedestrian-oriented neighborhoods in the city.

#### **Views from the Road**

Views for vehicle occupants traveling northbound on the existing viaduct are similar to those discussed for the stadium area above for the segment south of Yesler Way. Northbound near views from S. King Street to the left of the roadway are no longer dominated by the modern container port in the foreground, but include the more traditional freight shed building of Pier 48 and the ferry loading headworks of the Seattle Ferry Terminal parking areas and the Colman Dock building.

Distant views from the existing viaduct are available to the vehicles that traverse the corridor during the daytime. The most vivid views are available to northbound vehicles, or about one-third of the total daily volume of 110,000 vehicles. Views of Puget Sound with the Olympic Mountains in the distance are oriented to the northwest. Near views of the waterfront are available from the far left lane. The plane of the roadway cuts off most of the near view of the waterfront from the right lanes, with only a few visible elements such as the peaks of the roofs of transit sheds. In this area, on-ramps from First Avenue S. merge at S. King Street and require more driver attention than the section of roadway to the south.

Views to the east between S. Royal Brougham Way and Railroad Way S. include the buildings between First and Occidental Avenues S. that are in the City of Seattle Preservation District but are excluded from the National Register Historic District, which ends at Railroad Way S. These buildings are largely brick loft buildings constructed in the early 20<sup>th</sup> century, although some have altered upper floors that were either added or remodeled to accommodate residential development. North of Railroad Way S., historic brick buildings are located immediately adjacent to the viaduct, with some

newer concrete garage buildings that are within the historic district but are generally considered not to contribute to the historic context. The view of buildings adjacent to the viaduct includes only the upper floors of the buildings. This truncated view provides little opportunity to view the unity of the historic buildings as a whole, or the milieu of the district as a whole.

The views from the southbound lower-level traffic lanes are constricted by the upper deck and the height of railings on the lower deck and interrupted by columns. The southwest views in this area include stacked containers and docked ships at Terminal 46 and Harbor Island. The Port of Seattle cranes are the most vivid element in the middle distance of these views, with some views of the West Seattle ridge in the background.

### **Views Toward the Road**

The existing viaduct is the most prominent element in street-level views of the Pioneer Square Historic District as seen from Alaskan Way S. looking to the east, as shown in Exhibit 3-5. The viaduct dominates near views and obstructs views of historic structures. There are some distant views of high-rise buildings in the downtown further to the north, but they are minor elements compared to the scale of the viaduct. The visual dominance of the structure is reinforced by the visual distraction of vehicles flashing by and the associated noise of vehicles, especially the thump as they cross expansion joints.

Views of the existing viaduct from the Pioneer Square Historic District are most significant from the east-west perpendicular streets. Within the project area, Railroad Way S. is a diagonal street, the north side of which is included in the historic district. S. King Street is an east-west street that marks the northerly extent of the Project. The visual context of the east-west streets within the historic district is similar. All are tightly framed by three- to eight-story brick buildings. The complexity of the framing tends to increase on the northerly streets because the building scale tends to be smaller and more complex. All the streets have buildings at the sidewalk line, street trees, and no overhead utilities. The streets provide a unified and consistent corridor of urban development of a historic character.

The unity of architectural style, the inherent interest of the buildings, the unity of composition, and complementary elements such as street trees provide high visual quality throughout the historic district. The main focus of activity and interest in the historic district is at Pioneer Square and along First Avenue S. to the south, which has a landscaped median and the largest concentration of shops and restaurants. The northern portions of the historic



Exhibit #:	Title:
<b>3-5</b>	View to the Southeast, Alaskan Way at S. Main Street
	Existing Condition

district are generally more visually interesting because of the smaller scale of the buildings and the more complex interactions between the buildings and the streetscape. Buildings to the south are generally larger and have fewer storefronts, resulting in a less diverse streetscape.

The existing viaduct substantially reduces the intactness and unity and therefore the overall visual coherence of streetscapes in which it is a feature. The aerial structure contrasts in line, materials, scale, and character with the context of this historic area. The horizontal character of the viaduct contrasts with the generally vertical character of historic brick buildings composed of pierced vertical windows with narrow piers between. The concrete structure contrasts in materials and color with the red brick that is the predominant building material in the Pioneer Square area. The horizontal levels of the viaduct bear no relation to the scale of the horizontal divisions of buildings in the area into regular floors at about 12- to 16-foot increments. The greatest contrast in character is at the termination of the linear view down the east-west streets, where the contrast in building character is most apparent and where the presence of vehicles above grade level moving across the field of vision provides the greatest visual dissonance. Traffic on the viaduct is both a visual and noise intrusion. To people on the street, vehicles appear and disappear as a stream of irregular flashes. Noise from the viaduct reinforces the visual effects with an irregular pulse as tires cross expansion joints.

None of the surface streets from which the existing viaduct is visible are designated City of Seattle Scenic View Routes. Further to the north, Yesler Way and S. Jackson Street are both designated City of Seattle Scenic View Routes.

The visual effect of the existing viaduct differs somewhat among the perpendicular streets according to the view available at the end of the street. At S. King Street, the terminus of the view includes a fairly neutral building elevation on Terminal 46, with Port of Seattle cranes in the background above the building.

The effects of the existing viaduct become greater for viewers in closer proximity. The visual effects at closer distances are of an increasingly dominating scale with greater contrasts with the linear rhythm of the street corridor and the details of building form and materials. The effects of traffic noise also contribute to the sense of domination by the viaduct structure. The visual barrier of the viaduct is reduced somewhat for closer viewers because of the ability to see more clearly under the viaduct to the scene beyond. The scene looking toward the waterfront is, however, truncated horizontally by the traffic levels and interrupted by vertical supports.

Close to and underneath the viaduct, the change in character becomes even more pronounced. The open sky above the street is cut off, the influence of weather and sun is absent, no street trees or other vegetation are present, and the temperature in the shadows under the viaduct is often lower. The visual effect of the viaduct is reinforced by the character of the traffic noise that is not only at higher decibel levels, but comes from above and reverberates in the space beneath. The character of the sound includes the irregular thuds of tires passing over expansion joints, which is notably different in character from the traffic noise on surface streets.

The visual effects and the reinforcing noise effects of the viaduct decrease at a distance. It is greatest for the blocks between Alaskan Way S. and First Avenue S. By Fourth Avenue S., the relative size of the viaduct in relation to other elements of the streets and the attenuation of noise effects render the existing viaduct only marginally intrusive, although it remains visible.

The population of viewers in the Pioneer Square Historic District is high and consists of persons involved in activities that make them likely to be among the most sensitive to visual quality. The area has among the greatest concentrations of small shops, restaurants, and entertainment in the downtown area. The visual qualities of the historic area are also one of the prime attractions. The Pioneer Square area is estimated to receive about 2.5 million tourist visitors a year. A high proportion of viewers are likely to be involved in elective activities, which makes them highly sensitive to the features of the environment. No pedestrian volumes are available at S. King Street or Railroad Way S. Volumes near Occidental Avenue S. and S. Main Street in 2003 were about 1,800 pedestrians for the lunch hour and about 4,300 pedestrians daily (Seattle 2001). The viewing population is typically highest at Pioneer Square, which is the focus of activity in the area. Pedestrian volumes drop off to the south, except on days when events are scheduled in the stadiums to the south.

Views from private property include views from buildings that face the viaduct, and from buildings along perpendicular street corridors. Buildings east of First Avenue S. south of Railroad Way S. currently have unobstructed views of the viaduct over the top of the transit shed building on the west side of the street.

For buildings adjacent to the viaduct, ground floor views are of the parking area under the viaduct. The second to fourth floors adjacent to the viaduct are likely to look out upon traffic decks with substantial view blockage. In addition, the presence of high-speed traffic flashing past windows can be quite visually intrusive. Several buildings adjacent to the viaduct have floors above the viaduct level. In these cases, views of the waterfront, Elliott Bay,

Puget Sound, West Seattle, and the Olympic Mountains are not blocked or intruded upon by the viaduct.

#### **Light and Glare**

The lighting for the existing viaduct upper level is similar to normal arterial street lighting. The presence of a lighted structure above grade level emphasizes the extent to which the structure cuts across the orientation of the surface street for nighttime views and the degree to which the viaduct is an intrusive element in this historic district. The elevated light source is an additional intrusive source of glare for upper windows of buildings that would not be directly affected by lighting of surface streets.

---

# Chapter 4 OPERATIONAL EFFECTS, MITIGATION, AND BENEFITS

This chapter describes the visual change created by the Project, and the extent to which the effects would be experienced as adverse or beneficial by viewer groups using the facility and viewing the facility within the study area. Potential mitigation measures are described in Section 4.2.

## 4.1 Operational Effects

### 4.1.1 Duwamish Industrial Area

#### Views from the Road

Occupants of vehicles on the at-grade roadway south of S. Atlantic Street, the single-level aerial structure at S. Atlantic Street, and the at-grade roadway to the north are likely to have similar views of the downtown skyline to the north along the roadway alignment as from the existing viaduct, as shown in Exhibit 3-1. The lower elevation of the single-level roadway over S. Atlantic Street and the at-grade portion of the roadway would largely preclude views to the northwest. Views to the south would continue to be framed by the Port of Seattle terminals on the west and the stadiums on the east, but would no longer be obscured by the upper deck.

#### Views Toward the Road

Because the proposed single-level aerial structure would be lower than the existing viaduct section in this area, views toward the viaduct would be similar to today or somewhat improved. Views down east-west streets would continue to include the railyards with the cranes from the Port of Seattle container terminal at the skyline and the wooded West Seattle ridge as background.

Views from E. Marginal Way S. to the south of S. Atlantic Street would be almost the same, with the easterly side of the street bounded by railroad lines with parked railroad cars. The shorter aerial structure would not change the skyline view to the east, which is dominated by the Starbucks Center building with Beacon Hill behind it.

#### Light and Glare

The proposed at-grade SR 99 roadway and elevated structure in this area is expected to be lighted with standard street light fixtures and is likely to be typical of urban street lighting levels. For the elevated structure, the lower

overall height would reduce the extent of light spillover and glare. The light from the highway, however, would be a minor source of light and glare compared to the higher intensity and mounting height of lighting for the BNSF railyard to the east and the Port of Seattle terminals to the west.

#### 4.1.2 Stadium Area

The new aerial structure would be about a single level high at S. Atlantic Street. It would begin to transition to an at-grade roadway to the north, and then would rise again to connect to the existing double-level viaduct.

##### Views from the Road

Occupants of vehicles on the single-level aerial structure at S. Atlantic Street and the at-grade roadway to the north are likely to have similar views of the downtown skyline to the north along the roadway alignment as from the existing viaduct, as shown in Exhibit 3-2. The single-level elevated structure would be lower in elevation, resulting in views that would include more of the upper stories of adjacent buildings. The same would be true of views from the at-grade roadway. The transition to the existing viaduct and the new transition structures near S. King Street would be somewhat more complex than the level roadway shown in the exhibit.

Vehicles northbound on the single-level aerial structure would have views of Pier 48 to the northeast, although the peaks of the Olympic Mountains in the distance would be obscured or blocked in some cases because of intervening buildings and stacked containers. These intervening features would completely block views of Elliott Bay. The at-grade portion of the roadway would have no distant views to the northwest. Views to the northeast would be framed by the distinctive arched roofs of the sports stadiums. The lower portions of the buildings would be obstructed by intervening buildings. The downtown skyline would continue to be the dominant element.

Views from the southbound lanes on the transition from the double-level viaduct and on the single-level side-by-side aerial structure and at-grade roadway would continue to be framed by the Port of Seattle terminals on the west and the stadiums on the east, but would no longer be obscured by the upper deck. The cranes of the Port of Seattle terminals to the west and the arched trusses of the stadiums on the east would be the dominant skyline features.

##### Views Toward the Road

The majority of the viewing population would be composed of attendees at sporting events and persons passing through the area on roadways. The single-level SR 99 passing over at-grade S. Atlantic Street would be a less

prominent feature than the existing viaduct. The view of the front of the Bemis Building on the south side of S. Atlantic Street west of First Avenue S. would be unobstructed and maintain its visual integrity.

A vehicle or pedestrian traveling to the west down S. Royal Brougham Way, a designated City of Seattle Scenic View Route, is likely to be most conscious of the bulk of Safeco Field and the Qwest Field Event Center, which frame and dominate the street. The views to the west down S. Atlantic Street would include the aerial portion of the SR 99 roadway. The terminus of the view on S. Royal Brougham Way would be a sloping retaining wall supporting SR 99, which would be about 10 feet high at the road centerline. The stacked shipping containers at Terminal 46 would be the dominant middle-distance feature, with the Port of Seattle cranes as a skyline feature.

For baseball fans congregating on First Avenue S. adjacent to Safeco Field, the new single-level configuration of the SR 99 aerial structure would not change the low unity of street-level views to the west or the skyline features of the port cranes to the west. However, most of the single-level aerial structure would be screened from the views from First Avenue S. by existing buildings. The more vivid view available for pedestrians along First Avenue S. would remain to the north, where the downtown skyline provides a visual focus.

The view for attendees at baseball games from the outdoor viewing areas on the west side of the ball field at the 300 level would not be affected substantially by the Project. Like the existing viaduct, the new single-level structure would be below the line of sight to the water's edge at Elliott Bay and to distant views of the wooded hills of the Kitsap Peninsula and the more distant peaks of the Olympic Mountains. Viewers would look down upon a wider highway with additional features, such as the transition to the existing double-level viaduct. In the context of the Terminal 46 buildings, stacked shipping containers, and cranes, the new highway structures would have little influence on the low visual coherence or general lack of unity of the scene.

The section of SR 99 north from S. Royal Brougham Way connecting to the existing viaduct is within the viewshed that includes the Olympic Mountain peaks in the distance with Elliott Bay and Magnolia in the middle-distance. The new transition structures near S. King Street would be below the line of sight to the water's edge at Elliott Bay and would not interfere with the views of Elliott Bay or the wooded hills of the west shore of Puget Sound or of the peaks of the Olympic Mountains. The transition structures would add another element with multiple levels and weaving roadways. The new transition structures near S. King Street would be close to the existing ramps to First Avenue S. and could be perceived as a new structural element in an already complex visual environment. Given the lack of visual unity of the

middle-ground view of Terminal 46 with its stacks of multi-colored containers, cranes, and the existing ramps from First Avenue S., the new transition structures would not likely be perceived as an intrusive element.

The visual context for pedestrians on the west side of Qwest Field along Occidental Avenue S. down Railroad Way S. would continue to be dominated by the existing on- and off-ramps from the viaduct to First Avenue S., which are closest to the stadium. The ground-level view down Railroad Way S. to the east would continue to be obstructed by the existing ramps, which would obstruct most views of the new transition structures leading from the at-grade roadway to the existing double-level viaduct.

The view to the west for attendees at football games or other persons leasing the space on the Sky Deck level on the west side of the stadium would be largely of the at-grade section of the highway and the new transition structures connecting from the at-grade portion of the roadway to the existing viaduct. Both the at-grade highway section and the new transition structures are farther below the line of sight to the water's edge of Elliott Bay at the edge of Terminal 46 than the existing double-level viaduct. These elements would not obstruct more distant views of the wooded hills of the Kitsap Peninsula and the peaks of the Olympic Mountains. The roadway would be wider, but would not likely be a visual focus. The corridors, lounges, and lofts of the Club Level of the stadium are generally lower than the Sky Deck but higher than existing buildings between First and Occidental Avenues S. These levels also have a substantial view down the Railroad Way S. corridor.

The at-grade portion of the roadway generally would be screened by existing buildings. The new transition structures connecting the at-grade highway with the existing viaduct would be readily visible in views directly to the west; however, the existing First Avenue S. ramps are closer to the viewpoint and would continue to be the dominant element in views to the northwest down Railroad Way S. The new transition structures would add complex features with multiple levels and sloping and weaving elements. The existing lack of unity of the middle-ground views of Terminal 46 provides a context in which the additional element of the connecting transition structures is not likely to be perceived as a substantial encroaching element. The ramps would not obstruct distant views of the wooded hills of the Kitsap Peninsula and the peaks of the Olympic Mountains.

The viewing population of attendees of sports events and persons driving local streets are likely to be moderately sensitive to the visual context. The general lack of visual coherence and interest provided by the shipping terminals west of the SR 99 corridor and south of Railroad Way S. is likely to result in little perception of difference.

## Light and Glare

Lighting in this portion of the corridor would be on the single-level aerial structure, the at-grade portion of the roadway, and the transition structures connecting to the existing viaduct. The lighting on portions of the structure lower in elevation would be less noticeable as a part of the urban environment. Lighting on the connecting ramps and the existing viaduct is expected to be similar to existing conditions. Overall, there would be little or no change in glare effects to the surroundings.

### 4.1.3 Pioneer Square Historic District

#### Views from the Road

Occupants of vehicles would have the same views as described above for the stadium area.

#### Views Toward the Road

The existing viaduct structure would remain a prominent feature in street-level views from east-west streets within the Pioneer Square Historic District north of S. King Street. The new transition would connect the at-grade roadway to the existing double-level viaduct structure just south of S. King Street. This transition structure would be more complex than the existing viaduct. The sloping level climbing to the upper level would provide additional contrast to the horizontal rhythms of the linear street corridor. The visual effects of the new structure would be visible primarily from the west, from First Avenue S. to the east, and from Railroad Way S.

Views to the west from First Avenue S. would be enhanced somewhat by the single-level aerial structure and the at-grade portion of the roadway. This section of roadway is located directly west of the portion of the City of Seattle's Pioneer Square Preservation District that extends between First and Occidental Avenues S. from Railroad Way S. to S. Royal Brougham Way. Views of the single-level structure for pedestrians at street level would be blocked by the intervening Washington-Oregon Shippers Cooperative Association (WOSCA) building, or buildings resulting from future redevelopment.

The transition from the side-by-side to stacked lane configuration would be somewhat more visually prominent than the existing viaduct because of its lack of parallel continuous elements across the visual plane and its visual contrast with the at-grade portion of the roadway and the at-grade ferry parking. The overall roadway section would be more complex, with a rise to a single-level aerial structure at S. Atlantic Street, an at-grade section, and transition structures connecting to the existing viaduct. For the views from

the upper floors of buildings along First Avenue S. south of Railroad Way S., the visual effects would be somewhat greater than from Safeco Field or Qwest Field because the viewpoint is closer and the WOSCA building does not block the view. For the at-grade portions of the roadway, the view obstruction of the existing viaduct would be lower in the single level portion, or eliminated at the grade level section. The view would continue to feature the Terminal 46 stacks of multi-colored containers, with the silhouette of large cranes. The absence of the viaduct would eliminate a continuous, horizontal, above-grade visual element along the entire north to south viewing area. The overall effect on the visual quality of the scene is likely to be a slight improvement, largely from elimination of the cars and trucks traversing the field of view rather than the structure itself.

The transition structure connecting the at-grade roadway with the existing viaduct would add another complex element. The sloping and weaving structures with partially free-standing columns and beams projecting from the main structure would be similar, but likely less of a visual intrusion than the existing ramps on Railroad Way S., which also project from the viaduct at an angle. This additional structure would contribute to the existing lack of unity of the context. The middle-distance views of Terminal 46 containers and cranes to the west would likely continue to be the dominant element. The new transition structures are not likely to be perceived as encroaching into the landscape because of the existing overall lack of unity of the view.

Views of the new roadway from portions of the Pioneer Square Historic District north of Railroad Way S. would be blocked by existing buildings (and a new building under construction north of the Triangle Hotel) or substantially obscured by the existing ramps on First Avenue S.

Views from Alaskan Way S. to the east and southeast would include the new connecting transition structures to the viaduct, the at-grade highway, and the single-level aerial structure. Viewers would be unlikely to interpret these transition structures or the aerial structure as substantial intrusions into the view. The existing viaduct is currently the dominant visual element in this area and substantially obscures views to the east. With the new at-grade and single-level structure, additional views to the south would feature the Bemis Building and the Starbucks Center as the dominant visual focus in the future. Views to the east and southeast would feature the historic structures facing First Avenue S.; the rooflines of Qwest Field and Safeco Field would become the dominant elements of the middle view, with Beacon Hill the distant skyline element.

The population of viewers in the Pioneer Square Historic District is highest north of the project area. Within the project area the sidewalk fronting First

Avenue S. is likely to have the highest pedestrian volumes because of ground-level retail uses, which are currently dominated by art galleries and restaurants catering to the sports venues. The existing view of the upper level of the viaduct with cars speeding past, above the WOSCA building, would be replaced by a more conventional urban streetscape.

The new remote holding area for Seattle Ferry Terminal traffic on the east side of SR 99 would not be visible from First Avenue S. because of intervening buildings and is not likely to be observed from the west because of the intervening highway. The views of the holding area from upper floors of buildings would include a landscaped parking area that is likely to be perceived as a neutral element of the visual environment.

### Light and Glare

Lighting in this portion of the corridor would be on the single-level aerial structure, the at-grade portion of the roadway, and the transition to the existing viaduct. The lighting on the at-grade portions of the structure would be less noticeable as a part of the urban environment. Lighting on the transition structures and the existing viaduct are expected to be similar to existing conditions. Overall, there would be little or no change in glare effects to the surroundings.

## 4.2 Operational Mitigation

Because the views from and toward the new SR 99 structure would be similar to views from and toward the existing Alaskan Way Viaduct, no mitigation measures would be needed.

A variety of visual amenities can be incorporated into a linear corridor transportation project such as this to address the contrast in line, materials, scale, and character with the context of the urban area traversed.

Opportunities include development of design guidelines for the Project to address the visual design, architectural, signing, and lighting parameters. Using these guidelines during design can result in a consistent visual palette for the built condition. This would provide greater consistency with the surrounding streetscape. These guidelines could help to ensure that the visual composition of the roadway improvements is more unified with other built elements along the highway corridor.

Design guidelines could include the following elements:

- Consistent design for structural elements throughout the corridor, or in segments of the corridor. This could include a similar architectural design theme and surface materials throughout, or might include specific elements that reflect specific sub-areas. For example, it may be

possible to design vertical piers within the Pioneer Square area to incorporate a brick veneer that better reflects the building materials within the historic district.

- Landscaping, including street trees planted adjacent to the aerial structure, could soften the appearance of the vertical elements and partially screen the structure. Climbing plants could also be used to soften the appearance and texture of the concrete structure.
- Landscaping, artwork, or other features providing visual interest (such as aesthetic improvements to the surface treatments of structures) could be used to reduce the visual effect of sections of the roadway that are supported by retaining walls (such as at the termination of S. Royal Brougham Way).
- Lighting and special sidewalk materials, as well as buffer areas between sidewalks and roadways, could provide a clearer and more inviting visual environment for crossing under the elevated portions of the corridor.
- Consistent sidewalk, median, and crosswalk treatments could provide visual unity and also reinforce wayfinding by clearly demarcating pedestrian routes and continuing those themes into the area on either side of the corridor.
- Consistent landscape materials and street trees could provide a more pleasant visual experience, and may be placed so that they do not block view corridors.
- Designation of a design standard for street lighting poles and fixtures, which may include recessed or shielded lighting, could minimize light and glare effects on adjacent uses. The hue of lighting also could be coordinated for consistency with surrounding streets.
- Consistent placement, size, and design of signage within or adjacent to the corridor could provide for a more unified visual experience for users of the road.

---

## Chapter 5 CONSTRUCTION EFFECTS AND MITIGATION

### 5.1 Construction Effects

The discussion of construction effects is based on preliminary design plans for construction staging and construction duration. Visual elements common to construction activities include staging areas, closed roadway sections, detours, heavy equipment, drill rigs, scaffolding, cranes, and temporary storage of materials.

Visual effects of construction are unlikely to change the overall regional views. Where distant views of water features and mountains are currently visible, they likely would remain visible, although in some cases views at the pedestrian level may be blocked by fencing, construction barriers, and temporary noise walls. The overall visual intactness of the construction site is likely to be reduced by encroaching elements, including the general clutter of construction activities, construction equipment, stored materials, and a general disruption of normal streetscapes with fencing, equipment, vehicles, and activity.

### 5.2 Construction Mitigation

Construction mitigation generally is of limited effectiveness in addressing the general disruption of the visual environment during construction. A number of features can be incorporated in project scheduling to help restore the visual character of the near or middle ground and add visual interest during construction.

The most effective construction mitigation for visual clutter is to restore the construction corridor where construction has been completed in intermediate stages rather than waiting until completion of the entire project. After completion of each section, complete reconstruction to the final configuration would allow that portion of the corridor to return to a stable landscape while other portions are still disrupted.

Local visual interest can be added to construction sites to compensate for the reduction in overall visual intactness by incorporating viewing areas with information to make the construction activity a point of visual interest. Detours for vehicles and pedestrians can include common graphic themes of wayfinding displays.

This Page Intentionally Left Blank

---

## Chapter 6 INDIRECT AND CUMULATIVE EFFECTS

Indirect effects are effects that are caused by the Project but occur later in time or farther away. Cumulative effects are effects that could result when relatively minor independent effects from multiple past, present, or reasonably foreseeable future projects become substantial collectively over time if not mitigated. Indirect and cumulative effects must be identified and examined in an effort to avoid or minimize their possible effects and incorporate mitigation and project planning where needed.

### 6.1 Indirect Effects

No adverse indirect visual effects of the Project have been identified.

### 6.2 Cumulative Effects

Cumulative visual effects may occur both from public and private projects unrelated to this Project.

#### 6.2.1 Operational Effects

##### SR 519 Intermodal Access Project Phase 2

This project includes a grade-separated railroad crossing at S. Royal Brougham Way to eliminate train and freight traffic conflicts at S. Royal Brougham Way and Third Avenue S. to reduce the number of collisions and delays for the pre- and postgame event traffic. The elevated structure will change the relationship between elements of the visual context and provide a less unified and coherent streetscape where the elevated structure is present.

##### Private Development

Private development in the area is likely to occur as separate projects that will cumulatively affect the visual context. An area likely to attract private development would be the block between First and Occidental Avenues S. between Railroad Way S. and S. Royal Brougham Way, where vacant lots are currently used as parking, and newer non-historic buildings are attractive for redevelopment. In addition, older loft buildings are likely to be reconditioned for higher-value residential use on the upper floors. The development in this area is likely to increase the visual quality of the area by increasing visual unity and coherence by filling in vacant lots and providing a more consistent architectural palette. Taller buildings in this area also will likely screen views of the roadway elevated structures. The 85- to 120-foot zoning height limit in this area may also obstruct views of scenic elements such as Elliott Bay and the Olympic Mountains from Qwest Field.

The block between First Avenue S. and SR 99 also may see some redevelopment toward office or mixed use with residential and possibly street-level mixed uses more oriented to the sports stadiums in the vicinity. The parcels between Railroad Way S. and S. Royal Brougham Way currently have a 65- to 85-foot zoning height limitation. Redevelopment at that height would block any views of the SR 99 structure from the pedestrian level of First Avenue S., from upper floors of buildings on the east side of the street, and from Safeco and Qwest Fields. Development is proposed at the former parking lot at the corner of First Avenue S. and S. Atlantic Street consisting of a 300,000-square-foot office and 23,000-square-foot residential building. Views of the transition from the surface highway to the elevated structure are likely to be blocked by the new building. Redevelopment farther south may include mixed-use office development and may change the character of the area, although the lack of visual focus of views in that direction are unlikely to change the character of views from Safeco Field.

## 6.2.2 Construction Effects

Cumulative effects during construction may occur from projects that are expected to be under construction in the project area. If schedules overlap, they could have temporary cumulative visual effects due to the visual clutter and general reduction in visual unity and coherence.

### City of Seattle's Bridging the Gap – Downtown Paving Plan: 2006–2013

The goals of the Seattle Department of Transportation (SDOT) Bridging the Gap plan that are relevant to the Project include:

- Improving pedestrian and bicycle safety and creating safe routes to schools.
- Increasing transit speed and reliability.

Over a period of several years, SDOT will:

- Resurface, restore, or replace approximately 300 lane-miles of arterial streets.
- Support the development of a Pedestrian Master Plan.
- Provide bike lanes in accordance with the Bicycle Master Plan.
- Add 4 miles of new multi-use (shared) paths.
- Secure up to 45,000 hours of new Metro Transit service.
- Enhance transit and safety improvements on three key transit corridors.
- Fund four major capital improvement projects: Spokane Street Viaduct, Lander Street Overpass, Mercer Street Corridor, and King Street Station.

---

## Chapter 7 REFERENCES

FHWA (Federal Highway Administration). 1988. Visual Impact Assessment for Highway Projects. FHWA-HI-88-054.

Jacques, J.L. 1980. Landscape appraisal: The case for a subjective theory. *Journal of Environmental Management*, 6, 153-170.

Kaplan, R. 1983. The role of nature in the urban context. In: I. Altman and J.F. Wohlwill (Eds.). *Human behavior and environment: Advances in theory and research*. Vol.6, pp. 127-161. New York: Plenum Press.

Kaplan, R. 1985. The analysis of perception via preference: A strategy for studying how the environment is experienced. *Landscape Planning*, 12, 161-176.

National Park Service. 2007. Seattle: A National Register of Historic Places Travel Itinerary. Available at: <http://www.nps.gov/nr/travel/seattle/s30.htm>. Accessed October 25, 2007.

Real, E., C. Arce, and J.M. Sabucedo. 2000. Classification of Landscapes Using Qualitative and Categorical Data and Prediction of their Scenic Beauty in Northwestern Spain. *Journal of Environmental Psychology*, Vol. 20, No. 4, Dec 2000, pp. 355-373.

Roma Design Group. 2002. Alaskan Way Viaduct and Seawall Project Urban Design Assessment.

Seattle, City of. 1998. Pioneer Square Neighborhood Plan, November 1998. Pioneer Square Neighborhood Plan Approval and Adoption Matrix, Resolution 29814.

Seattle, City of. 2001. Metropolitan Improvement District Pedestrian Study. Seattle Department of Transportation. Available at: <http://www.downtownseattle.com/EconomicInfo/EconomicProfile/ParkingTrafficPedestrians.cfm>. Accessed December 5, 2003.

Seattle, City of. 2003. Seattle, Shoreline Master Program and supporting studies, Seattle Land Use Code Chapter 23.60.

Seattle, City of. 2006. Central Waterfront Concept Plan, Mayor's Recommendation, June 2006. Available at [http://www.seattle.gov/DPD/Planning/Central\\_Waterfront/DraftWaterfrontConceptPlan/default.asp](http://www.seattle.gov/DPD/Planning/Central_Waterfront/DraftWaterfrontConceptPlan/default.asp). Accessed October 25, 2007.

Seattle, City of. 2005. Seattle's Comprehensive Plan, Toward a Sustainable Seattle, City of Seattle Department of Planning and Development, Adopted

December 2005. Available at: [http://www.seattle.gov/DPD/Planning/Seattle s Comprehensive Plan/ComprehensivePlan/default.asp](http://www.seattle.gov/DPD/Planning/Seattle_s_Comprehensive_Plan/ComprehensivePlan/default.asp). Accessed October 25, 2007.

Seattle, City of. 2006. Seattle's Parks and Recreation 2006 Development Plan, City of Seattle Department of Parks and Recreation. Available at: <http://www.seattle.gov/parks/Publications/DevelopmentPlan.htm>. Accessed October 25, 2007.

Seattle Seahawks Webpage. 2007. [www.seahawks.com](http://www.seahawks.com). Accessed October 25, 2007.

Sekuler, R. and R. Blake. 1994. Perception, 3rd edn. New York: McGraw-Hill.

Washington State Major League Ballpark Public Facilities District. 1997. New Pacific NW Baseball Park, Draft Pedestrian Connections Plan. Weinstein Copeland Architects, Seattle, Washington.

WSDOT (Washington State Department of Transportation). 1996. Roadside Classification Plan. Available at: <http://www.wsdot.wa.gov/eesc/design/roadside/default.htm#rcp>. Accessed October 25, 2007.

WSDOT (Washington State Department of Transportation). 2003. Roadside Manual, M 25-30. Available at: <http://www.wsdot.wa.gov/publications/manuals/fulltext/M25-30/Roadside.pdf>. Accessed October 25, 2007.

WSDOT (Washington State Department of Transportation). 2006. Washington State Ferries, Traffic Statistics Rider Segment Report, January 1, 2006 thru December 31, 2006. Available at: [http://www.wsdot.wa.gov/ferries/traffic\\_stats/annualpdf/2006.pdf](http://www.wsdot.wa.gov/ferries/traffic_stats/annualpdf/2006.pdf). Accessed October 25, 2007.

WSDOT (Washington State Department of Transportation). 2007. Ferry System - Seattle Ferry Terminal at Colman Dock website. Available at: <http://www.wsdot.wa.gov/projects/ferries/SeattleColmanDock/>. Accessed October 25, 2007.

Yarbus, A.L. 1967. Eye Movements and Vision. New York: Plenum Press.