

SEPA ENVIRONMENTAL CHECKLIST

South Spokane Street Viaduct Widening Project

February 2006

Prepared for the City of Seattle Department of Transportation

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SEPA ENVIRONMENTAL CHECKLIST

ABSTRACT

The State Environmental Policy Act (SEPA)¹ requires that all governmental agencies consider the environmental impacts of a proposal before a proposal is decided upon. This Environmental Checklist has been prepared in compliance with the State Environmental Policy Act; the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and the Seattle City Code (25.05), which implements SEPA. The City of Seattle, Department of Transportation, is the SEPA lead agency for the proposed project.

The South Spokane Street Viaduct Widening Project would provide improvements to the existing viaduct and surface roadway in the south downtown Seattle area. The purpose of this Environmental Checklist is to identify and evaluate potential environmental impacts that could result from this project and to identify measures to mitigate those impacts.

This Environmental Checklist is organized into three major sections. Section A provides background information concerning the proposed project (e.g., purpose, proponent/contact person, project description, project location, etc.). Section B contains the analysis of environmental impacts that could result from implementation of the proposed project, based on review of major environmental parameters. This section also identifies possible mitigation measures. Section C contains the signature of the proponent.

This document is intended to serve as SEPA review for proposed project construction work and operation of the South Spokane Street Viaduct Widening Project. No significant environmental impacts associated with project-related activities are expected to occur. Based on this checklist and its supporting studies, a Determination of Non Significance (DNS) would be issued by the City of Seattle.

¹ Chapter 43.21C, Revised Code of Washington

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A. BACKGROUND

1. Name of proposed project, if applicable:

South Spokane Street Viaduct Widening Project

2. Name of applicant:

City of Seattle

3. Address and phone number of applicant and contact person:

Stuart Goldsmith, Project Manager
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P.O. Box 34996
Seattle, WA 98124-4996
(206) 684-5150

4. Date checklist prepared:

February 2006

5. Agency requesting checklist:

City of Seattle, Department of Transportation

6. Proposed timing or schedule (including phasing, if applicable):

Construction of the proposed project could occur in one, two or three phases, depending on the availability and timing of funding. Construction would begin in 2007 at the earliest and be completed in either 2009 or 2010, depending on how the project is funded. All three phases, if constructed together, could be completed in two years: if constructed separately, it would take about three and one-half years.

Phase 1 (about 18 months): This phase would include widening the viaduct from about 300 feet east of 1st Avenue South, the eastern terminus, to the Harbor Island off-ramp near East Marginal Way, which is the project's western terminus. The viaduct, which is currently 45 feet wide, would be widened to 86 feet wide. A new westbound on- and-off ramp would be constructed at 1st Avenue South. The existing westbound 4th Avenue South off-ramp would remain open during Phase 1 construction, which is planned for mid-2006 through 2007.

Phase 2 (about 15 months): This phase would include widening the viaduct from the eastern terminus of the Phase 1 improvement to the Interstate 5 (I-5) interchange (the project's eastern terminus) and removing the old westbound 4th Avenue South ramps. Phase 2 construction is planned for 2008 through mid-2009.

Phase 3 (about 9 months): This phase would include building the eastbound 4th Avenue South off-ramp. Phase 3 construction is planned for mid-2009 through early 2010. Depending on the availability of funding, this component could also be built as part of Phase 2 and potentially as an independent project prior to Phases 1 and 2. Construction of the ramp may involve relocation of a 12 inch high-pressure petroleum pipeline and a 30-inch diameter water main.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No future additions, expansions or activity is planned at this time.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following documents have been prepared in support of this project:

- *Transportation Technical Report* (Parsons Brinckerhoff, Inc., August 2005)
- *Air Quality Technical Report* (Parsons Brinckerhoff, Inc., August 2005)
- *Noise Memorandum* (Parsons Brinckerhoff, Inc., September 20, 2005)
- *Social, Economic, and Environmental Justice Technical Report* (Parsons Brinckerhoff, August 2005)
- *Hazardous Materials Discipline Report* (Parsons Brinckerhoff, August 2005)
- *Draft Cultural and Historic Resources Report* (Northwest Archeological Associates, Inc., November 2005)
- *Section 4(f) Evaluation—WSDOT South Spokane Street Maintenance Facility* (Parsons Brinckerhoff, Inc., September 2005)
- *No Effect Letter* (Herrera Environmental Consultants, October 2002)

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The East Marginal Way flyover is a proposed project near the western terminus of the proposed project. No other applications are pending for governmental approvals of other proposals directly affecting the property covered by the proposed project. The proposed work for the South Spokane Street Viaduct Widening is a separate project from the proposed Alaskan Way Viaduct Replacement project. Both projects have independent utility.

10. List any government approvals or permits that will be needed for your proposal, if known.

The following list of potential approvals and permits may be required for the proposed project:

- National Historic Preservation Act, Section 106 review (Department of Interior, Washington State Department of Archaeology and Historic Preservation)
- Clearing and Grading Permit (City of Seattle)
- Drainage Approval/Permit (City of Seattle)
- Temporary Dewatering Permit for construction (City of Seattle)
- Waste Discharge Permit for dewatering (King County)
- Street Use Permit (City of Seattle)

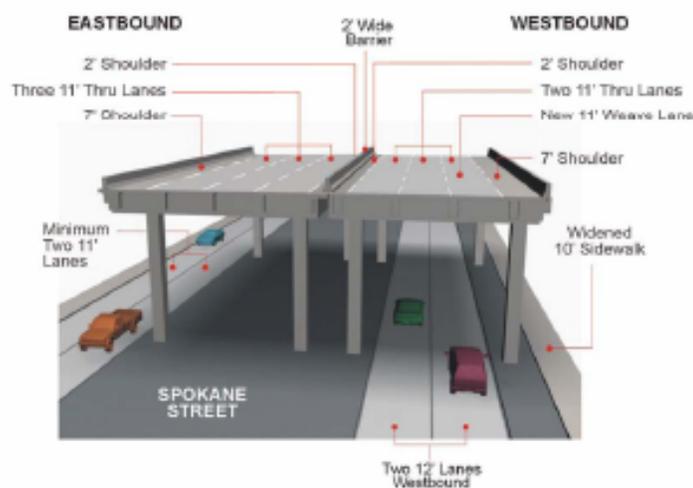
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description).

The proposed project would reduce conflicts among freight movement, intercity rail passenger traffic, commuter traffic, and ferry access, as well as increase the safety and mobility of people and goods. The project would also improve lane channelization and signage on the ground-level South Spokane Street roadway, which also has a high accident rate. Components of the proposed project are described below.

Project Components

Widen Roadway: The existing viaduct is 45 feet wide. The proposed project would widen the viaduct to the north by 41 feet, for a total width of about 86 feet (see illustration below). The widened viaduct would accommodate a new westbound “weave” lane between I-5 and the new 1st Avenue South on/off-ramp (described below) and replace two narrow existing lanes. Traffic lanes on the widened viaduct would be reconfigured to a width of 12 feet with 8-foot-wide shoulders and a wider relocated permanent median, or remain at a width of 11 feet with reduced 7-foot-wide shoulders if a third eastbound lane is added in conjunction with a two-lane eastbound 4th Avenue South off-ramp. The decision on final lane widths and configuration will be based on ongoing preliminary design work for the 4th Avenue South loop off-ramp. Under either option, the elevated structure’s entire roadway surface would be repaved in concrete. The portion of the viaduct that would be widened is about 0.7 mile in length.

Viaduct after Widening



Relocate Westbound 4th Avenue South On/Off-Ramp: New westbound on- and off-ramps that meet current design standards would be constructed at 1st Avenue South, replacing existing ones at 4th Avenue South, which would be removed. The existing westbound 1st Avenue South on-ramp would also be removed.

Build New Eastbound 4th Avenue South Off-Ramp: A new eastbound off-ramp to 4th Avenue South would be built. The new ramp would touch down on 4th Avenue South, south of South Spokane Street, and provide improved access to the E-3 Busway.

Build Lower-Level Roadway Improvements: Full curbs and sidewalks would be constructed on the north side of South Spokane Street to serve as a multi-use pathway, improving pedestrian and bicycle safety and access. The new sidewalk would connect to a planned bicycle path along 5th Avenue South (also known as the E-3 Busway).

The roadway would be repaved and a paved median would be added to some areas under the viaduct. These improvements would be built along the entire project length. Please refer to Item 6 above for details related to phasing of the proposed project.

Other Improvements

- The South Spokane Street stormwater system was recently replaced. The proposed project would result in additional upgrades to the system. Runoff from existing impervious surface areas would be treated for water quality improvement.
- A fire protection system would be provided for the viaduct roadway along the entire length of the widening.
- Viaduct and ground-level lighting would be built along the entire length of the widening.
- Final seismic improvements would be made, as identified in the original 1994 project plan, which would meet current standards.
- The electrical transmission lines along the north side of South Spokane Street and the electrical service connections to properties along the north side of South Spokane Street would be relocated underground.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposed project is located in Township 24N, Range 04E, Sections 17 & 18. The proposed project Vicinity Map is shown in Figure 1, and the location of proposed project components is shown in Figure 2.

The project would provide improvements to the existing South Spokane Street viaduct and ground-level roadway in the south downtown area of Seattle. Improvements, which would be constructed between 6th Avenue South and East Marginal Way, would include widening and new on- and off-ramps at 1st Avenue South, as well as a new eastbound loop ramp to 4th Avenue South.

Figure 2: Project Area



B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one):** Flat, rolling, hilly, steep slopes, mountainous, other.

The project site area is generally flat. Topography in the area has a gentle slope from east to west as the land approaches the Duwamish Waterway. The existing viaduct is about 25 feet above the ground-level South Spokane Street roadway.

- b. What is the steepest slope on the site (approximate percent slope)?**

The steepest slope is approximately 3 percent.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Soils are predominantly fine-grained with some areas of thin, coarse-grained layers. Fill is present in the area, ranging from 5 to 15 feet thick. The fill is underlain by deposits of very loose to loose sandy silt and very soft to soft clayey silt with localized areas of peat or organic soil. Below the estuarine fill deposits lies a thick sequence of alluvial sediments consisting of sand and silt layers to depths up to 23 feet below the ground surface.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

Fill and clay are present in the area, and these soils could be prone to potential liquefaction during seismic events.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Minor fill would occur. Imported gravel would be used for construction of proposed sidewalks along the surface-street portion of the project. Structural fill would be needed for the 1st Avenue South and 4th Avenue South ramps. Approximately 1,340 cubic yards of fill would be needed for 1st Avenue South, and approximately 3,240 cubic yards of fill would be needed for 4th Avenue South.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Erosion could occur from soils that become exposed during excavation and other construction activities. Much of the site consists of impervious surfaces, so erosion is not expected to be great. Best Management Practices would be implemented to prevent runoff.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The proposed project is in an urban area that is about 90 percent impervious pavement surfaces. After construction there would be approximately 2,200 square feet of additional impervious surfaces in the form of new pavement. The new pavement would be added along the northern edge of the ground-level South Spokane Street roadway, between 1st Avenue South and East Marginal Way.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

- Temporary Erosion and Sedimentation Controls (TESC) would be used during construction to ensure that excavated soils and construction materials are not deposited on city streets or flow into city stormwater facilities.
- The TESC would follow Seattle Standard Specifications for *Road, Bridge and Municipal Construction* (Section 8-01).

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Fugitive dust emissions from particulate matter and vehicle and equipment emissions could occur during construction. Emission levels would vary daily, depending on specific construction activities and weather conditions. Following construction, emissions from vehicles using the roadway would occur. The maximum eight-hour carbon monoxide (CO) concentration from vehicle emissions would be approximately 4.8 parts per million in 2009 and 3.3 parts per million in 2030. These concentrations would not exceed air quality standards for the project area. Refer to the attached South Spokane Street Viaduct Project *Air Quality Technical Report* (Parsons Brinckerhoff, August 2005).

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No. Vehicular traffic in downtown Seattle, the Duwamish industrial area, and I-5 are sources of CO emissions in the area. This traffic is not anticipated to affect the proposed project.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Potential mitigation to control emissions and particulate matter during construction would include the following:

- Evaluating all structures to be demolished for asbestos-containing materials.
- Covering stockpiles and spraying exposed soil with water or other dust palliatives to reduce particulate matter (PM₁₀) emissions and deposition.
- Covering all trucks transporting materials, wetting materials in trucks, or providing adequate freeboard (space from top of the material to the top of the

truck) to reduce PM₁₀ and deposition of particulates during construction.

- Sweeping to remove particulate matter deposited on paved, public roads to reduce mud on the roadway.
- Routing and scheduling construction trucks to reduce traffic delays during peak travel times to reduce secondary air quality impacts caused by reduced speeds while waiting for construction trucks.
- Placing quarry spall aprons where trucks enter public roads to reduce mud track-out.
- Requiring appropriate emission-control devices on all construction equipment powered by gasoline or diesel fuel to reduce carbon monoxide and nitrogen oxide emissions in vehicular exhaust.

3. Water

a. Surface

- 1) *Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.***

No surface-water bodies are located on the site. The Duwamish River is approximately 700 feet west of the proposed project's western limits. Elliott Bay is approximately one mile northwest of the proposed project site.

- 2) *Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.***

No. The proposed project would not involve any work over, in, or adjacent to surface waters. The proposed project site lies outside the City's designated shoreline boundary for Puget Sound and the Duwamish River.

- 3) *Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.***

No fill or dredge material would be placed in or removed from any surface-water body.

- 4) *Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.***

No surface-water withdrawals or diversions would be needed.

- 5) *Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.***

No. The project site is not located within a flood-prone area as designated on the city's Critical Areas Map.

- 6) *Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.***

No discharges of waste materials to surface waters are expected.

b. Ground:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

Groundwater may be encountered and withdrawn during construction.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals... agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No wastewater material would be discharged into groundwater.

c. Water Runoff (including stormwater)

- 1) Describe the source of runoff (including stormwater) and method of collection and disposal, if any (including quantities, if known). Where will this water flow? Will this waste flow into other waters? If so, describe.**

Stormwater runoff from the existing viaduct structure and street system would flow into the city conveyance system, and from there into the regional wastewater treatment facility.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

Waste materials are not expected to enter ground or surface waters during construction or operation of the improved roadway.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any.

Erosion Control measures and Best Management Practices would be implemented to reduce and control runoff and surface and groundwater impacts. Minor improvements would be made to the stormwater system. Best Management Practices, following City of Seattle Standard Specifications, that might apply would include the following: silt fencing on the perimeter of work areas, sediment ponds and/or traps; use of mulch or other temporary ground cover where soils might be exposed for long periods of time; staging of clearing and grading work to limit the extent of disturbed soil at one time; and seeding in cleared areas.

4. Plants

a. Check or circle types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

No vegetation is found on the project site.

b. What kind and amount of vegetation will be removed or altered?

No vegetation would be removed or altered.

c. List threatened or endangered species known to be on or near the site.

No threatened or endangered species are known to be in or near the proposed project site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

A 3-foot wide landscaped strip of approximately 18,074 square feet would be provided along the north side of South Spokane Street between the proposed curb and sidewalk. The landscape strip would be planted with shrubs. No other plantings are proposed.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, **eagle, songbirds**, other: **seagulls**, Canada geese

Mammals: deer, bear, elk, beaver, other: **none**

Fish: bass, **salmon, trout**, herring, shellfish, other:

The proposed project site is in an urbanized area. The nearest bald eagle nesting site is approximately one mile west of the proposed project site, near the West Seattle Bridge. Salmon and trout are present in the Duwamish River and Elliott Bay. The Duwamish River is approximately 700 feet west of the proposed project's western terminus.

b. List any threatened or endangered species known to be on or near the site.

No threatened or endangered species are known to be in or near the proposed project site, and no known data indicate that the site serves as a breeding, resting, or roosting location for threatened or endangered species. Bald eagles (*Haliaeetus leucocephalus*) have been observed occasionally near the Duwamish River and Elliott Bay. The nearest bald eagle nesting site is approximately one mile west of the proposed project site, near the West Seattle Bridge. Puget Sound chinook salmon (*Oncorhynchus tshawytscha*) and bull trout (*Salvelinus confluentis*) are present in the Duwamish River and Elliott Bay. The Duwamish River is about 700 feet west of the proposed project's western terminus.

- A Biological Assessment prepared for the project concluded that a "no effect" determination was appropriate for the proposed project's impact on federally listed chinook salmon and bull trout.

Source: *No Effect Letter* prepared for the South Spokane Street Viaduct Project (Herrera Environmental Consultants, 2002).

c. Is the site part of a migration route? If so, explain.

The proposed project site is not part of a migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

The entire proposed project site is an existing transportation corridor and no wildlife is present. Measures to preserve or enhance wildlife are not necessary.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Lighting proposed along the viaduct and at ground level would require electricity.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The proposed project is not expected to affect potential solar energy use by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None proposed.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.**

During construction and operation of the proposed project, a risk of fire, explosion and/or spills exists from vehicles and equipment using the roadway. Accidents may also result in the release of hazardous materials in the area, either during construction or in future operation of the roadway.

A comprehensive search of environmental regulatory agency databases was conducted for the project by Environmental Data Research (EDR), Inc. Of the sites identified in the EDR Report, all but 11 were reviewed and eliminated from consideration for having potential impacts on the proposed project area. The 11 remaining sites were further evaluated during site reconnaissance. As a result of field review, seven of these sites were found to have a low potential to adversely affect the proposed project area; three sites were found to have a high potential to adversely affect the proposed project area; and one site was recommended for additional testing. A *Hazardous Materials Discipline Report* (Parsons Brinckerhoff, 2005) was prepared for this project and is on file at SDOT offices.

1) Describe special emergency services that might be required.

Special emergency services, including police, fire, and emergency medical services, could be required for construction or operation activities during accidents.

2) Proposed measures to reduce or control environmental health hazards, if any:

Construction workers would be educated about safety procedures related to environmental health hazards that could result from spills or accidents.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Because of its urbanized setting, existing noises are not expected to affect the proposed project site. Existing noise occurs from traffic on surrounding streets, manufacturing and industrial activities from nearby buildings, and freight movement via trains on nearby railroad tracks. It is possible that random noises, either from construction in the area or as a result of accidents or events near the project site, could temporarily produce sounds that may disturb on-site workers or vehicles using the roadway.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Short-term increases in noise could result from equipment or vehicles using the proposed project site during construction. Specialized equipment may be needed at times during construction, which may produce short-term noises in the area. Maximum noise levels from construction equipment would range from 69 to 106 dBA at a distance of 50 feet. Following construction, long-term noise levels associated with vehicles using the

roadway would be present. With or without the proposed project, future traffic noise levels are expected to increase approximately 1 to 3 dBA nearest the roadway. Noise levels during operation of the roadway are not expected to differ greatly from existing noise levels on surrounding streets or at nearby buildings.

During construction, noise may be present during regular construction hours, primarily between 6am and 6pm. Following construction, noise levels associated with vehicles on the roadway would be present all day and may be greater during morning and evening peak travel hours when more vehicles would be present.

3) *Proposed measures to reduce or control noise impacts, if any:*

No measures to reduce or control noise are necessary or proposed during operation.

Construction noise could be reduced by using enclosures or walls to surround noisy equipment, installing mufflers on engines, substituting quieter equipment or construction methods, minimizing times of operation, and locating equipment farther from sensitive receptors. To reduce construction noise at nearby receptors, the following mitigation measures could be incorporated into construction plans and contractor specifications:

- Limiting construction activities to between 7am and 10 pm to reduce construction noise levels during sensitive nighttime hours.
- Equipping construction equipment engines with adequate mufflers, intake silencers, and engine enclosures to reduce their noise by 5 to 10 dBA (U.S. EPA, 1971).
- Specifying the quietest equipment available to reduce noise by 5 to 10 dBA.
- Turning off construction equipment during prolonged periods of nonuse to eliminate noise from construction equipment during those periods.
- Requiring contractors to maintain all equipment and train their equipment operators to reduce noise levels and increase efficiency of operation.
- Locating stationary equipment away from receiving properties to decrease noise from that equipment as the distance increases.
- Constructing temporary noise barriers or curtains around stationary equipment that must be located close to residences to decrease noise levels at nearby sensitive receptors.

For additional information, see the attached South Spokane Street Viaduct Widening Project *Noise Technical Memorandum* (Parsons Brinckerhoff, 2005).

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The proposed project site is currently used as a primary transportation roadway that connects the south downtown area with the West Seattle Bridge, I-5, and State Route (SR) 99. The roadway is in an industrial part of the city, and adjacent properties have primarily industrial, manufacturing and commercial land uses.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

The site consists of South Spokane Street between approximately 6th Avenue South and East Marginal Way, and includes the elevated South Spokane Street Viaduct, which is about 25 feet above the ground-level South Spokane Street roadway. The viaduct is a large concrete and steel roadway structure that was completed in the 1940s and includes concrete support columns along the roadway's at-grade portion.

d. Will any structures be demolished? If so, what?

The existing 1st Avenue South on-ramp and 4th Avenue South on- and off-ramps would be demolished and removed.

e. What is the current zoning classification of the site?

The proposed project area is within the IG 1 (General Industrial 1) zone.

f. What is the current comprehensive plan designation of the site?

The proposed project area is within the Industrial designation on the Comprehensive Plan map.

g. If applicable, what is the current Shoreline Master Program designation of the site.

Not applicable. The proposed project site is outside the boundary of the Shoreline Master Program.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The proposed project site is classified as a geologic hazard area due to its location in a designated liquefaction-prone area and is listed in the City of Seattle's Environmental Critical Areas (ECA) Map. The liquefaction-prone area is usually underlain by cohesionless soils of low density and is associated with a shallow groundwater table that could lose substantial strength during earthquakes. The proposed project would be designed to meet applicable City seismic and liquefaction zone design criteria.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Displacements would not occur.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed project would be generally consistent with plans for the proposed project area, which include future industrial and manufacturing uses. Many of these uses require infrastructure that supports the movement of goods to and from the proposed project area. The proposed project would support the existing and future use of the roadway as a primary link to local and regional transportation routes and would facilitate travel in the area.

9. Housing

- a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**
None.
- b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**
None.
- c. **Proposed measures to reduce or control housing impacts, if any:**
None.

10. Aesthetics

- a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The elevated structure would be approximately 30 feet above the ground. The proposed structure would be concrete and steel.

- b. **What views in the immediate vicinity would be altered or obstructed?**

Views in the proposed project vicinity would remain largely the same. The proposed improvements would widen the existing viaduct from 45 feet to 86 feet, increasing the size and scale of the structure in relation to surrounding buildings. The proposed widening would occur along the northern side of the roadway and would extend the existing structure's footprint approximately 40 feet closer to buildings to the north. The existing ramp on 4th Avenue South would be removed, resulting in an open view to building facades along the east side of the street. New on/off ramps would be provided north of the viaduct at 1st Avenue South and south of the viaduct at 4th Avenue South. The 4th Avenue South ramp would form an arc connecting to 4th Avenue South (see Figure 2). Views toward buildings nearest South Spokane Street would be altered in these locations. The proposed project would include replacing some portions of the deteriorated median area beneath the viaduct with new gravel, which would improve the existing roadway's appearance.

- c. **Proposed measures to reduce or control aesthetic impacts, if any:**

With the proposed improvements, the general appearance of the project area would be improved. The proposed surface street would include new sidewalks, curbs and gutters. Dirt and gravel open space beneath the viaduct, currently used for informal parking, would be paved. New gravel would be placed in the existing median area. Each of these features would upgrade the present appearance of the roadway in the proposed project area.

11. Light and Glare

- a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

During construction, the proposed project would produce light and glare from construction vehicles traveling to and from the site. Exterior lighting and on-site light and glare associated with construction equipment would also occur. Operation of the proposed roadway would produce light and glare during evening hours from vehicles

using the roadway and from proposed lighting on and below the elevated structure.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

After completion, light and glare from the proposed project would be similar to levels of light and glare on the existing roadway and from nearby streets and buildings. No safety hazard or view disturbances are expected to result.

c. What existing off-site sources of light or glare may affect your proposal?

Off-site light and glare is not expected to affect operation of the roadway.

d. Proposed measures to reduce or control light and glare impacts, if any:

Downward-directed lighting could be used for the proposed roadway.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

No recreational facilities are located in the immediate proposed project area (bicycling routes are considered transportation facilities by the City of Seattle, not recreational facilities).

b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None are necessary or proposed.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Twenty-seven cultural and historical resources were identified within the proposed project's area of potential effect for historic resources. Of these resources, only two were recommended or determined eligible for the National Register of Historic Places: an archaeological site identified as Site 45KI529, and a historic building, the Washington Department of Transportation South Spokane Street Maintenance Facility. Please refer to the South Spokane Street Viaduct Project *Cultural and Historical Resources Report* (Northwest Archaeological Associates, 2005), which is on file at the SDOT office.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Twenty-five historic buildings or structures (including the existing South Spokane Street Viaduct structure) and two archaeological sites have been identified at or near the proposed project site. Prehistoric sites in the Puget Sound region suggest continuous habitation throughout the past 11,000 years. The two archaeological sites were present prior to human contact and could be encountered during construction.

More recently the Duwamish Valley, including Seattle, was first settled by Euroamericans in the 1850s. Tidelands reclamation in the 1890s extended Seattle's business district to the south, near the present proposed project area. Commercial and industrial development followed in the early 1900s and thereafter. Historic buildings in the project area were constructed in the 1900s. The oldest building in the proposed project area was constructed in 1910, and the most recent was constructed in 2005 (a secure community transition facility).

c. Proposed measures to reduce or control impacts, if any:

Probable areas of archaeological resources would be monitored during construction and presented in an updated Archaeological Monitoring and Discovery Plan. A memorandum of agreement with the State Historic Preservation Office and FHWA regarding potential archeological discoveries and mitigation measures will be prepared.

Measures to mitigate changes in the setting of the WSDOT South Spokane Street Maintenance Facility could include large-format black-and-white photographs of the historic property and preparation of a statewide historical context for similar WSDOT facilities.

14. Transportation

a. Identify the roadway's function and access points to and from the facility. Also describe the existing street system surrounding the roadway. Show on site plans, if any.

The South Spokane Street Viaduct is an elevated, limited-access roadway that serves local and regional east-west traffic primarily between the I-5 corridor and West Seattle. This roadway is one of the only limited-access east-west routes in the entire Seattle area, so it not only carries significant volumes of traffic during peak-hour periods, but also a wide range of vehicle types. Within the targeted study area, access to and from the roadway is limited to ramps at 1st Avenue South (to/from the west) and 4th Avenue South (from the east only). The existing roadway network surrounding the viaduct primarily consists of collector and principal arterials. Outside the South Spokane Street Viaduct corridor, east-west travel generally occurs along South Lander Street and South Spokane Street. North-south traffic is concentrated on 1st Avenue South, 4th Avenue South, 6th Avenue South, and East Marginal Way. The key roadways are described below.

- *South Spokane Street* is a principal east-west arterial configured as a one-way couplet. It lies below the South Spokane Street Viaduct. This arterial consists of two or three eastbound and westbound lanes, and the speed limit is posted at 30 mph. Grades are generally modest (less than 3 percent). Lane widths are 10 to 12 feet and sidewalks are generally not provided.
- *South Lander Street* is a four- to five-lane principal east-west arterial that lies north of the South Spokane Street Viaduct. Sidewalks are provided along most segments and grades are minor. Posted speeds are 30 mph and lane widths are 11 to 12 feet.
- *1st Avenue South* is a two-way principal north-south arterial that provides access to and from the downtown core from the South Spokane Street Viaduct. This

arterial consists of two to three lanes in each direction, and parking is generally allowed on both sides. The posted speed limit on 1st Avenue South is 35 mph. Grades are minor and lane widths range from 10 to 12 feet.

- *4th Avenue South* is a principal north-south arterial that serves as a critical spine between downtown, the sports stadiums, and the South Spokane Street Viaduct. Speeds are posted at 35 mph and parking is generally allowed on both sides. Grades are modest within the study area. In addition to the various signalized intersections in the overall study area, a pedestrian signal is provided on 4th Avenue South just south of South Spokane Street.
- *6th Avenue South* is a two-way north-south principal arterial with two lanes in each direction and posted speeds of 30 mph. Grades are modest and lane widths vary from 10 to 12 feet. Sidewalks are generally not provided within the study area.
- *East Marginal Way* is a north-south, two-way arterial that consists of one to two travel lanes in each direction. Speeds are posted at 35 mph and grades are modest in the study area. Lane widths are 11 to 14 feet and sidewalks are provided on the west side of the roadway in the study area.

For additional information, see the attached South Spokane Street Viaduct Project *Transportation Technical Report* (Parsons Brinckerhoff, 2005).

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is served by Metro and Sound Transit buses. Several routes use SR 99 and 1st Avenue South to and from the proposed South Spokane Street project area. Bus routes 21, 56, and 57 use the SR 99 corridor and bus routes 22, 56, 57, 116, 117, and 119 use 1st Avenue South. Routes 23, 32, 35, 131, and 163 use 4th Avenue South. Several regional bus routes use the E-3 Busway (5th Avenue South), including Seattle-Tacoma Sound Transit (Routes 590-595) and Sea-Tac Airport-related buses (Routes 174, 194, and others).

c. How many parking spaces would the completed project have? How many would the project eliminate?

The existing viaduct has provided informal parking areas on dirt and gravel open space beneath the structure, which is not striped or otherwise dedicated to parking. The proposed project would allow parking to continue in these areas. New open space beneath the structure would be paved and driveways would be provided for access. The proposed loop ramp on 4th Avenue South would eliminate some existing parking at the Seattle City Light parking lot at South Spokane Street and 4th Avenue South. Approximately 290 stalls currently exist at this lot, and the proposed project would eliminate approximately 50 of these parking spaces.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The proposed project would improve the existing South Spokane Street Viaduct by widening the roadway, providing additional lanes and shoulders, and adding new on/off ramps. These new ramps would include an eastbound off-ramp to 4th Avenue South and

westbound on/off ramps at 1st Avenue South. The new 4th Avenue South ramp would touch down on 4th Avenue South south of South Spokane Street and would potentially connect the South Spokane Street Viaduct to the E-3 Busway, creating a new transit link between West Seattle and downtown Seattle during replacement of the Alaskan Way Viaduct. The westbound off-ramp to 1st Avenue South would replace the existing 4th Avenue South westbound off-ramp while the on-ramp from 1st Avenue South would replace the existing on-ramp from the lower (at-grade) roadway just west of 1st Avenue South. The proposed project also includes improvements to the existing lower roadway. See the response to Question 11 in Section A for a more complete project description.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The proposed project would occur in an industrial area where existing railroad tracks are present. Major railroad lines through the area include the Burlington Northern Santa Fe (BNSF) rail network, concentrated between East Marginal Way and 1st Avenue South and east of 1st Avenue South, and the Union Pacific railroad, which lies east of 4th Avenue South. Several at-grade crossings of these rail lines currently exist on east-west arterials such as South Spokane Street, South Lander Street, and South Holgate Street. On South Spokane Street, flashing railroad crossing lights and control gates are currently used to stop east-west traffic during train crossings. Improvements to existing rail crossings are being investigated in various other studies. Please refer to the project description (Question 11 in Section A) for more details regarding specific traffic-related elements.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The proposed project is not expected to generate significant “new” trips through the corridor or on surface arterials. Volumes on the mainline viaduct segment are expected to vary by less than 5 percent between Baseline (No-action) and Build conditions (2009 and 2030 horizons). The *distribution* of traffic at the on/off ramps and on various north-south and east-west arterials is expected to change due to the mainline viaduct access revisions (i.e., new or reconfigured ramps). However, at the screenline or system level no significant changes in total peak hour (or daily) volume should occur. Please refer to the South Spokane Street Viaduct Project *Transportation Technical Report* for more detail regarding traffic volumes.

In 2030, AM peak-hour volumes would range from approximately 2,995 eastbound trips at 6th Avenue South to approximately 4,120 eastbound trips at Colorado Avenue South. In the PM peak hour, 2030 volumes would range from approximately 2,605 eastbound trips at 6th Avenue South to approximately 4,070 westbound trips at Colorado Avenue South.

g. Proposed measures to reduce or control transportation impacts, if any:

Short-term measures: Local traffic detour routes similar to those effectively used during previous work would be defined and implemented during the widening/construction effort. Because of expected increases in peak-hour traffic along these detour routes, mitigation in the form of intersection capacity enhancements (via dual left-turn lanes) would be applied at affected locations (see the South Spokane Street Viaduct Project *Transportation Technical Report*). Signal timing changes and/or phase sequence changes would also be implemented to accompany the turning movement capacity improvements.

In the context of the Alaskan Way Viaduct & Seawall Replacement Project (AWV), local arterial traffic volumes during the SR 99 closure would increase noticeably along key north-south routes such as 1st Avenue South and 4th Avenue South and on critical east-west bypass arterials such as South Lander Street. The roadway and signal improvements included as part of the South Spokane Street Viaduct Widening Project would provide much needed mitigation to accommodate the expected congestion on surface streets due to the AWV project (assuming these improvements could be completed prior to the AWV construction).

Long-term measures: Following construction and over the long-term (i.e., 2030 horizon), no significant mitigation measures would likely be needed to maintain reasonable levels of traffic flow during peak traffic periods. However, after the proposed reconfiguration of the South Spokane Street Viaduct ramps, elevated levels of congestion could occur at specific intersections during the weekday peak-hour periods. Critical high-congestion locations may require some form of mitigation, such as more extensive and expansive peak-period parking restrictions, lane striping and alignment changes, and/or signal progression enhancements. The majority of these mitigation measures could be implemented within the existing right-of-way on South Lander Street and by using the existing signal controllers at 1st Avenue South, 4th Avenue South, and 6th Avenue South.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.**

The proposed project is not expected to result in an increased need for public services. The proposed project includes improvements that would, in part, result in safer driving conditions. This could reduce the need for emergency protection associated with accidents that may occur along the roadway.

- b. Proposed measures to reduce or control direct impacts on public services, if any.**

None.

16. Utilities

- a. Circle utilities currently available at the site:** electricity, natural gas, water, refuse service, telephone, storm drain, sanitary sewer, septic system, other.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

Construction of Phases 1 and 2 must be preceded by the relocation of an electrical transmission line underground, including electrical service to nearby properties. The proposed project would include a new stormwater system for the roadway. New lighting would be provided on the viaduct and along the surface street below the viaduct. Seattle Public Utilities would provide storm drainage, and Seattle City Light would provide electricity for the proposed project area. City of Seattle standards and specifications would be followed, as would regulations of utility providers, Washington State, and

Federal authorities as appropriate for construction of new utilities in the proposed project area. The eastbound 4th Avenue South off-ramp may necessitate the relocation of a 12-inch high-pressure petroleum pipeline and a 30-inch diameter water main.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:

Date Submitted: