

**SEPA ENVIRONMENTAL CHECKLIST**

*Terminal 5 BNSF West Seattle Communications Tower*

**A. BACKGROUND**

**1. Name of proposed project, if applicable:**

Terminal 5 BNSF West Seattle Communications Tower

**2. Name of applicant: BNSF Railway**

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

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**4. Date checklist prepared: May 2, 2006**

**5. Agency requesting checklist: Port of Seattle SEPA File Number: 06-06**

**Port contact:**

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

Pending approval of city permits, BNSF plans to construct the communications tower in approximately June 2006.

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

There are no current plans for additions, expansion or further changes in structures or uses at Terminal 5. No other construction activities or improvements are related to this proposal.

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

Geotechnical Engineering Report. Proposed Radio Tower, West Seattle Rail Yard. Prepared by Milbor-Pita & Associates, Inc. for BNSF Railway. June 2005.

**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.**

No.

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

- City of Seattle – Land Use Review; Building Permit

- 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.)**

BNSF Railway proposes to install an 80' steel tripod-style communications tower between existing intermodal and switching rail yard tracks at Terminal 5 (see attached elevation drawing and location map). The tower will relay low wattage (1 watt) signals for a remote control locomotive system, which will improve the safety and efficiency of on-terminal rail operations. The location has been chosen to optimize radio transmission within the rail yard and marine terminal. The wire frame tower will be placed on a concrete base approximately 10' by 10'. The tower will be 3.5' wide at the base and 1.5' wide at the top. No changes in land use or terminal operations are proposed.

- 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, 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.**

Terminal 5 is located on the west side of the West Duwamish Waterway. The proposed tower will be located in the southwest corner of the terminal, within the intermodal railyard and northeast of the intersection of SW Spokane Street and Harbor Avenue Southwest in West Seattle. The street address at Terminal 5 is 2850 SW Spokane Street, Seattle, Washington 98126.

## **TO BE COMPLETED BY APPLICANT**

### **B. ENVIRONMENTAL ELEMENTS**

#### **1. Earth**

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

The site is an active existing marine container cargo terminal, and the tower will be located within the on-terminal rail yard. The installation site is flat, between existing train rails, including continuous fractured rock ballast substrate cover.

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

The steepest slopes at the Terminal 5 in the project area are approximately 3%.

- 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.**

All existing upland areas are constructed on filled former tideland area of the Duwamish River estuary in south Elliott Bay. Fill at the site consists of sediments dredged from the previous tideland area, excavated in the first two decades of the last century in order to create deep draft navigational access, and more recently placed fill materials from adjacent upland locations. The rail yard and cargo facilities included in the present proposal consist entirely of filled upland and have no previous, existing, or potential agricultural uses.

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

As a filled former aquatic area site, Terminal 5 is subject to liquefaction and is identified by City of Seattle Critical Area maps as within a liquefaction zone. Liquefaction potential zones are considered environmentally sensitive but not environmentally critical areas.

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

No dredging or filling of existing aquatic area is proposed. Approximately 22 cubic yards of gravelly soils will be removed and replaced with crushed rock and Portland cement concrete for the tower foundation.

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

No erosion due to the proposed project is anticipated.

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

Approximately 90 percent of existing area at Terminal 5 is covered by impervious surfaces. The tower foundation will cover approximately 100 square feet of level crushed rock surface within an existing railroad yard. No changes in impervious surfaces are proposed.

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

Best management practices for control of potential sources of erosion will be implemented during all construction activities as consistent with the City of Seattle Stormwater, Grading, and Drainage Control Ordinance and Department of Planning and Development Director's Rule 6-93.

**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.**

Air emissions expected as a result of construction activities include vehicle and equipment emissions during installation. Equipment anticipated for use at the site will include motor-powered, land-based construction machinery and trucks.

The Terminal 5 container cargo shipping and marine terminal facilities included in the present proposal have been in continuous operation from 1965 to the present, and the cargo shipping capacity, also referred to as through-put capacity, of the combined use site will not be expanded or be increased in comparison with the most recent cargo shipping activity at the site as a result of the proposed project. The overall cargo capacity of the site will not be expanded. Therefore, air emissions from facility-wide cargo operations at the site will not change significantly in comparison with past cargo operations at the entire site.

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

No off-site sources of air emissions are present that have the potential to adversely affect the present proposal.

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

Motor-powered equipment used for the proposed installation will be operated and maintained consistent with existing air emissions requirements.

**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.**

The proposed project is within Terminal 5, located on the west margin of the West Waterway in south Elliott Bay. Please note that the West Waterway is continuous with the Duwamish Waterway, and tributary to the Green/Duwamish watershed (WRIA 9).

- 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.**

The proposed project at the Terminal 5 site will take place in existing upland area built and committed to marine industrial use, located approximately 1,800 feet from the shoreline. No activities will take place within 200 feet of the shoreline.

- 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 dredging or filling of surface waters or wetlands is proposed.

- 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 are proposed as part of the proposed project.

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

The proposed project at Terminal 5 will take place in existing shoreland area used for the past four decades as a marine industrial, water-dependent site. Existing working surfaces at the site (existing top-of-pier deck elevation) are approximately plus 17-20 feet MLLW. The aquatic areas water-ward of the existing shoreline and beneath existing pier structures at the east margin of the site are subject to fluctuations in the 100-year floodplain.

- 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.**

The proposed project does not include discharge of waste materials to aquatic area in the adjacent West Waterway.

All operating equipment at the site will be subject to best management practices (BMPs) and Spill Prevention, Containment and Countermeasures (SPCC) plans implemented to avoid and minimize potential releases of fuel and petroleum products used by construction equipment to the marine environment. Best management practices intended to avoid and minimize potential releases of fugitive materials to the aquatic environment will control the proposed construction activities.

**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.**

The proposed project does not include withdrawal of groundwater or discharge of materials to groundwater at the project site.

- 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.**

The proposed project does not include any discharge of waste material to ground water at the site.

**c. Water Runoff (including storm water):**

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

As a result of construction, a portion of the existing crushed rock rail yard surface will be covered with approximately 100 square feet of concrete. No changes in existing storm drainage systems are proposed.

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

Only minimal volumes of waste materials will be generated during construction activities.

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

All construction activities will be controlled to avoid and minimize potential releases of debris to the aquatic environment. Motorized equipment used to perform construction activities will be subject to prudent best management practices and stringent discharge controls.

**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

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

No significant shoreline vegetation is present in the area of existing container and marine cargo facilities at Terminal 5. No emergent plants or significant algal growth is present at the site. The existing container

cargo facilities include existing sidewalk and street tree improvements at the street margins. Landscape conditions consist of boulevard trees, shrubs, and turf areas. No existing landscape vegetation at Terminal 5 will be affected by the proposed project.

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

No threatened or endangered plant species are known to be in the project area.

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

No existing landscape vegetation will be affected by the proposed project.

**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:**  
**mammals: deer, bear, elk, beaver, other:**  
**fish: bass, salmon, trout, herring, shellfish, other:**

The built and committed marine cargo use area in existing upland and shore land at Terminal 5 includes active cargo, warehouse, and industrial operations and does not include significant upland habitat for birds or mammals. Aquatic area in the adjacent East Waterway, and nearby south Elliott Bay and upstream Duwamish Waterway, provides habitat important to numerous species of resident and migratory fish and wildlife.

The proposal is within an existing rail yard. No adverse effects to aquatic habitats are expected.

Bald eagles that may be present in the project area, and their prey, could be temporarily disturbed by construction activities. However, bald eagles that have been observed near the project area appear to be habituated to a relatively high level of human activity, and installation of the communications tower is not expected to adversely affect eagles. Further, given the large feeding territories occupied by bald eagles, temporary construction activity at the small work site is not expected to impair foraging opportunities for these birds. An existing bald eagle nest site is located approximately 5,500 feet northwest of the proposed communications tower

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

Species listed under the Endangered Species Act (ESA) that may be present in the vicinity of the proposed project include: (1) Puget Sound Chinook salmon – threatened; (2) bull trout- threatened; (3) Stellar sea lion – threatened; (4) humpback whale – endangered; and (5) bald eagle – threatened.

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

South Elliott Bay, the East and West Waterways, and the Duwamish Waterway, comprise a portion of the migration corridor important to anadromous salmon species, linking Elliott Bay and the Green/Duwamish watershed.

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

None are proposed.

## 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.**

No significant change in use of energy at the project site will take place due to the proposed project. The new tower will be connected to electrical power in the adjacent signal bungalow.

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

The proposed project will have no adverse effect on potential use of solar energy at adjacent sites.

- 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:**

Fuel-efficient electrical and motorized equipment will be used to the extent possible throughout the construction and operation of the proposed project.

## 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.**

The proposed project does not include any new activities at Terminal 5. No operational changes will result that have the potential to introduce environmental health hazards to the project area. Please note that motorized equipment used for construction activities may include potentially hazardous materials in the form of fuel, lubricants, and associated materials. These materials will be subject to local, state, and federal controls and regulations pertaining to use, handling, and storage. No increase in exposure is anticipated.

- 1) **Describe special emergency services that might be required.**

No special emergency services are anticipated or necessary due to the proposed project.

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

Potentially hazardous fuels, lubricants, and associated materials used for operation of motorized equipment as part of the proposed construction activity will be subject to existing local, state, and federal controls for use, handling, and storage, with the objective of avoiding potential environmental health exposure and hazards.

- b. **Noise**

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

The project site is located within the existing rail yard at Terminal 5, on the west shoreline of the West Waterway, northeast of the West Marginal Way Southwest/Spokane Street intersection, in the South Elliott Bay/Duwamish industrial area. Existing sources of noise at the site include motor-driven vehicles, particularly heavy forklifts, and container cargo hauling trucks. Adjacent sources of noise include Spokane Street Viaduct traffic, heavy vehicle traffic on West Marginal Way Southwest, rail traffic from rail lines, and adjacent industrial facilities.

**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.**

Noise-generating construction equipment will include motorized cranes, trucks, and a backhoe. It is expected that noise generated from construction equipment will be within existing industrial area day/night baseline levels. Installation activities are not expected to produce noise levels in excess of industrial noise code standards implemented by City of Seattle.

No significant increase in the volume of cargo operations is anticipated in comparison with the cargo capacity represented by the existing marine cargo facility configuration. Therefore, no significant increase in noise resulting from continuing marine cargo operations at the site is expected to result from the proposed project.

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

All motorized equipment will be maintained and operated consistent with prudent measures to control potential noise emissions.

**8. Land and Shoreline Use**

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

Terminal 5 includes sites built and committed to marine industrial cargo use. Additional marine industrial and industrial facilities and operations, at privately owned sites, are present west, south, and east of the project site. Existing marine service uses and activities are consistent with the industrial shore-land and upland character of the project location.

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

The project site, as filled, former aquatic area, has no historic agricultural use.

**c. Describe any structures on the site.**

The existing Terminal comprises approximately 182 acres of upland and shore land marine cargo marshaling area, including the on-dock intermodal rail yard, warehouse structures, cargo piers, repair and maintenance facilities.

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

No.

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

The existing zoning classification is Heavy Industrial (IG2/U 85)

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

Existing comprehensive land use designations for the site include Heavy Industrial, General Industrial, and Manufacturing.

**g. If applicable, what is the current shoreline master program designation of the site?**

Not applicable.

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

City of Seattle Critical Area Maps indicate that the Terminal 5 site is within a liquefaction zone, since the area was created on fill in a portion of former south Elliott Bay tidelands. Liquefaction zones are considered environmentally sensitive but not environmentally critical areas. A project specific geotechnical report prepared by Milbor-Pita Associates, Inc. for BNSF concluded that the foundation design is adequate for the proposed tower in this zone.

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

No residential uses are present at the project site and no residential occupancy is proposed. Approximately the same number of workers currently engaged in marine cargo and rail operations would remain at the site. No change in the number of workers at the site is expected.

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

The completed project is not expected to result in displacement of workers.

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

No displacement of residents will result from the proposed project; therefore, no measures for avoiding or reducing displacement impacts are included in the present proposal.

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

The proposed project is consistent with the permitted uses and activities at the site.

**9. Housing**

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

No housing units are included in the proposed project.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

No housing units would be eliminated due to the proposed project.

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

Since no housing resources will be affected, no measures to reduce or control adverse effects on housing are included in the present proposal.

**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 proposed galvanized steel wire frame tower is 80' high.

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

No adverse effects on views of adjacent water and shoreline areas are expected to result from the proposed tower. The tower will be within an active marine industrial area with many higher vertical structures, including nearby on-terminal 100' light poles, stacked containers, power transmission towers, container cranes, elevated truck overpasses, and the West Seattle bridge.

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

No significant changes in view conditions at the existing marine cargo terminal are anticipated and no offsetting aesthetic measures are included in the present proposal.

**11. Light and Glare**

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

No new lights are proposed.

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

No.

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

No off-site sources of light and glare in the area of Terminal 5 are expected to adversely affect the present proposal.

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

None is necessary.

**12. Recreation**

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

The Port of Seattle has constructed and maintains a public shoreline access site north of the proposed project area: the Jack Block Public Shoreline Access and Park, 2130 Harbor Avenue Southwest. Public use improvements include 15 acres of landscaped buffer areas with interpretive information, pedestrian/bicycle pathways, shoreline access.

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

The proposed project will not alter or disrupt public shoreline or recreational uses in the project area.

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

None is 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.**

No listed historic or cultural resource sites are known to be present at or adjacent to the project site. The possibility that historic or cultural resources are present at the site is low since the present marine cargo facilities consist of more than 185 acres of fill, with the majority of fill placed in former aquatic area of south Elliott Bay and the Duwamish estuary.

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

No landmarks or evidence of historic, archaeological, scientific, or cultural features of importance are known to be at the project site or potentially affected by project actions.

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

No potential adverse effects on historic resources are anticipated and no measures are proposed to reduce or control such effects.

**14. Transportation**

**a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

Terminal 5 is bordered by public rights-of-way: Southwest Spokane Street to the south and Harbor Avenue Southwest to the west. The site includes arterial street connections to: (1) the south Elliott Bay/Duwamish industrial area via West Marginal Way Southwest and Harbor Avenue Southwest; (2) adjacent marine cargo facilities via West Marginal Way Southwest and Southwest Spokane Street; and (3) highway networks via existing direct links to arterial traffic routes.

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

Southwest Spokane Street is located immediately south of Terminal 5, and is served by five Metro transit bus lines; 21, 22, 37, 56, and 57. Harbor Avenue Southwest borders the west side of Terminal 5 and includes Metro bus line 37.

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

No changes to parking are proposed.

**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).**

No.

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

No changes in adjacent rail or air transportation will result from the proposed project. The proposed communications tower will improve rail operations, efficiency, and employee safety.

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

No significant change in the volume of trucks transporting marine cargo to and from the terminal is expected, nor is a significant increase in the number of vehicles used by workers at the site anticipated. During construction it is expected that vehicle use will include truck trips necessary for material hauling.

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

No negative effects on transportation are anticipated as a result of the proposed project. No additional measures for reduction/minimization of potential adverse transportation effects are included in the project.

**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.**

No increase in public services is anticipated as a result of the proposed project.

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

No measures for offsetting, reducing or controlling negative effects on public services are required.

**16. Utilities**

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

The project site receives electric, natural gas, water, solid waste, sanitary sewer, and telephone service.

**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 that might be needed.**

No change in utilities serving the site is proposed in the present project.

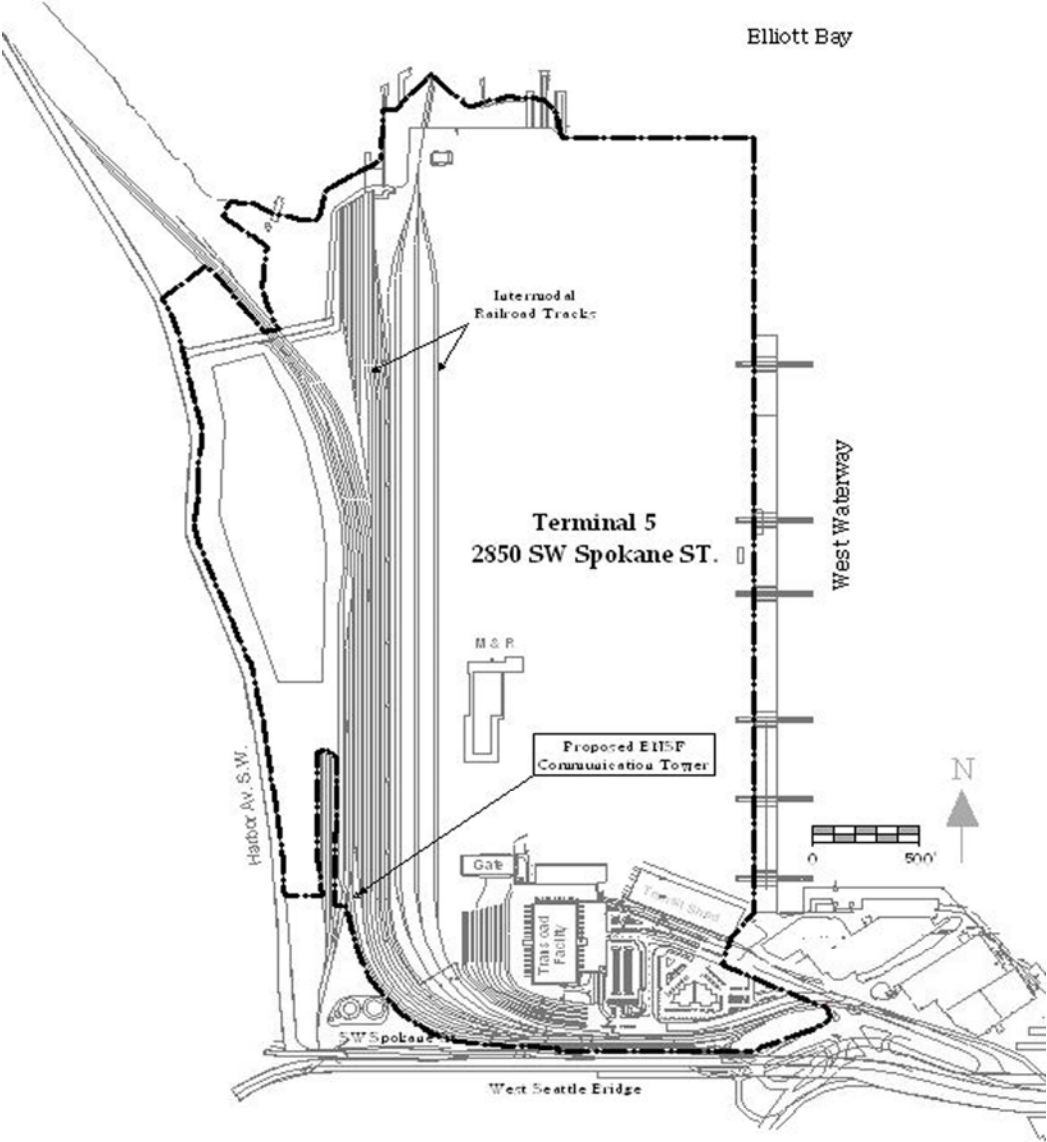
**C. SIGNATURE**

**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:** \_\_\_\_\_ Signature on File

**Date Submitted:** \_\_\_\_\_ May 25, 2006

Site Map



**Proposed BNSF Communication Tower  
Terminal 5 Container Cargo Facility**