

Appendix L: Hazardous Materials Discipline Report

Point Defiance Bypass Project



Hazardous Materials Discipline Report



**Washington State
Department of Transportation**

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Summary

What is the purpose of a Hazardous Materials Discipline Report?

The purpose of a Hazardous Materials Discipline Report is to determine whether the Project may encounter hazardous materials that may pose a significant unavoidable adverse impact that cannot be reasonably mitigated for. The report is conducted to support environmental documentation requirements established by NEPA and SEPA. The level of analysis and documentation of a discipline report is customized according to proposed construction activities and previously conducted environmental documentation, and helps gauge the significance of the effect to the environment and the project schedule and budget. The report allows FRA and WSDOT to make informed decisions regarding the selection of alternatives, minimization measures and/or the necessity of initiating early coordination with relevant regulatory agencies.

Hazardous materials are substances that may harm construction workers, the public, or the environment because of their physical or chemical characteristics. An investigation was conducted to identify existing or potential hazardous materials that may be encountered along the project alignment. The objective was to identify potential environmental hazards from past or present land uses on or near the rail corridor, evaluate potential effects, and identify possible minimization measures. The investigation identified and evaluated known or potentially contaminated sites that may:

- Affect the environment during construction work,
- Create construction effects, and/or
- Incur cleanup liability to WSDOT.

How was the research and evaluation conducted?

The research was conducted in accordance WSDOT's *Environmental Procedures Manual* (M31), [Chapter 447](#), Hazardous Materials. The investigation for the Project builds upon the work previously conducted in the 2007 *Point Defiance Bypass Hazardous Materials Technical*

*Memorandum.*¹ The research included a review of the 2007 *Technical Memorandum* along with other related reports that provided documented historic and geologic information. Historic information indicates past land use or business operations that may have used hazardous materials and had the potential to contaminate soil or groundwater. Geologic information helps assess possible contaminant migration routes.

Regulatory records were reviewed using Ecology's and USEPA's online databases. The study area of the regulatory review focused on two specific areas where the Project could encounter hazardous material effects through acquisition or ground disturbance work. For the purposes of this analysis, the study area was divided into two areas (see Exhibit : a quarter mile study area around Freighthouse Square, which has proposed parking areas that might be acquired along with possible utility work; and the rail corridor between Rail MP 10.4 and Rail MP 21.5 (between Bridgeport Way Southwest and the end of the Project at the Nisqually Junction terminus) where ground disturbance work within the rail right-of-way intermittently extends below two feet of the existing surface.

A screening and risk analysis was initially conducted on a compiled list of identified sites of concern, which was screened to eliminate sites that pose little or no risk to the Project, creating a smaller relevant list of sites that warranted additional investigation. Sites were eliminated based on the following factors:

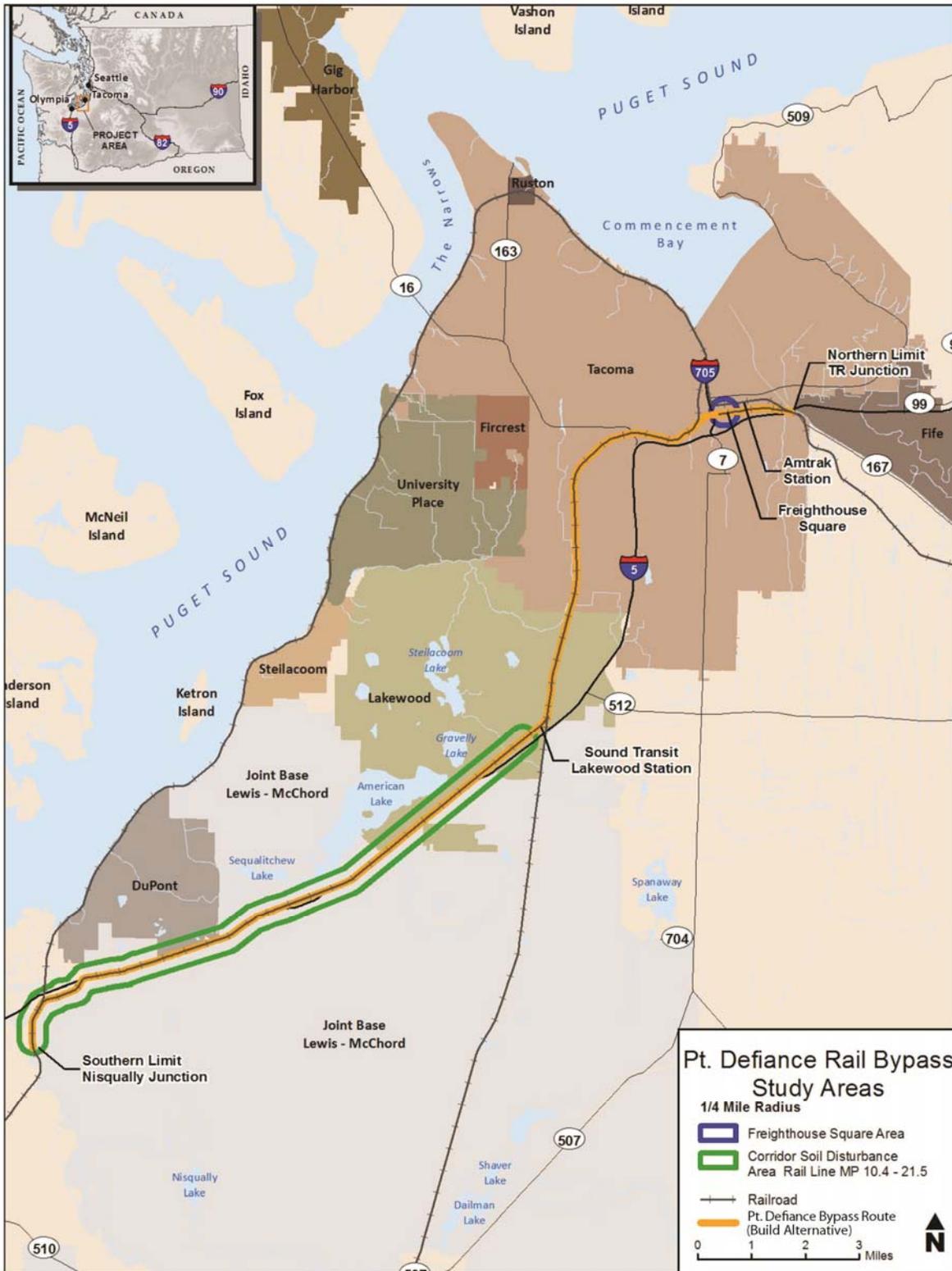
- Distance and hydraulic gradient
- Listed solely as a permitted hazardous waste generator site that had no indication of potential releases
- Listed solely on the SPILLS database which indicates a one-time spill occurred.

Sites that were retained for further review were Superfund sites, sites with document releases, and regulated sites located on or immediately adjacent to Freighthouse Square, proposed parking areas, or soil disturbance areas. These sites were compiled into a validated list that was maintained for further evaluation and risk analysis.

Ecology hard files and USEPA online Superfund site files were reviewed for selected sites. These files can provide site specific information regarding the type and extent of contamination, remediation work performed, and site specific soil and groundwater information.

¹ *The Point Defiance Bypass Project Hazardous Materials Technical Memorandum (August 2007) was prepared for WSDOT by HDR Engineering, Inc., and The Resource Group Consultants, Inc.*

Exhibit . Point Defiance Bypass Study Area



To evaluate and prioritize sites, a risk level was assigned based on the probable extent of contamination as they related to the Project's acquisition and excavation work. Site risk ranking categories included the following:

- **Low Impact:** The risk of encountering contamination is low.
- **Moderate Impact:** The risk of potential contamination to exist on the site is probable, yet, if encountered during Project work, the contamination is relatively straightforward to manage.
- **High Impact:** The risk of extensive and/or highly toxic contamination is known or suspected to exist on the site.

Lastly, identified sites of concern and Project construction activities were evaluated to determine whether there may be an effect that cannot be reasonably minimized. Evaluating effects considers effects to the environment, effects to project schedule and budget, and inheriting potential long term clean liability.

What are the Existing Conditions and Potential Effects?

No Build Alternative

Under the No Build Alternative, the tracks would remain in their current condition and would have the same or similar train operation and usage at the present time. The No Build Alternative would have no construction, thus no direct effects.

Build Alternative

Since 1873 the rail alignment has transported people and goods through western Washington. Current land use is industrial and commercial zoning along much of the project corridor, especially from Lakewood northward to Tacoma. Military bases and residential areas are located off the project corridor in Lakewood, Tillicum, and DuPont. The southern portion of the Project remains largely undeveloped.

The topography and near-surface geology has a pattern of north-trending ridges and swales with large topographic channels that trend westerly. The majority of the project alignment is covered by Steilacoom Gravel (commonly 20 feet thick) and is highly permeable. Precipitation primarily infiltrates directly into the ground instead of flowing overland. The groundwater table in the area is shallow, on the order of 10-40 feet below the ground surface. The rapid infiltration and shallow groundwater system makes the area highly susceptible to contamination.

Three properties near Freighthouse Square are being considered for acquisition as proposed parking areas. There would be limited ground disturbance work within existing rail right-of-way, with no surface water or groundwater work. The majority of excavation work is limited to surface grading to resurface the existing track sub-grade, or to prepare new surface for new track and power turn outs. Other excavation work that may go below 2-3 feet would include isolated areas for improved drainage features, new railroad control signal systems and relocating utilities. Exhibit illustrates areas of ground disturbance, showing where excavation occurs between 2-5 feet below the existing surface and areas where excavation may go below five feet. Existing ground surface could be disturbed by as much as eight feet in depth. Project construction activities are not expected to be deep enough to encounter groundwater.

The regulatory record search identified a total of 149 sites. After a screening process, 67 sites were validated as sites of concern. Out of 67 sites, 11 were ranked as Potential Moderate Impact, and eight were ranked as Potential High Impact.

In the Freighthouse Square area, the Potential High Impact Sites included:

- **Freighthouse Square (Site #2)** has contamination in place and is subject to an environmental Restrictive Covenant that would require pre-coordination and approvals with Ecology and liable parties prior to any construction work.
- **Airspares (Site #53 / PP1)** is a proposed parking area that may require acquisition and demolition. The site is located in a historically commercial and industrial area where past business operations on or adjacent to the property may have contaminated the site.
- **Stone Property Transit (Site #58 / PP2)** is a vacant lot that may require acquisition for a proposed parking area. The site is participating in Ecology's Voluntary Cleanup Program to address known contaminated soil, and suspected contaminated groundwater.
- **Industrial Parts Frictions I (Site #26 / PP3)** is a proposed parking area that may require acquisition and demolition. The site is located in a historically commercial and industrial area where past business operations on or adjacent to the property may have contaminated the site.

In the Corridor Soil Disturbance Areas, the Potential High Impact Sites included:

- **Sound Transit Rail Property (Site #83)** may contain shallow soil contamination from creosote-treated railroad ties, Tacoma Smelter Plume, slag rail ballasts, herbicides used for vegetation control, fuel, solvents and other hazardous materials spills.
- **Tacoma Smelter Plume (Site #84)** may have surface soils contaminated with lead and arsenic along the rail alignment with lead and arsenic.
- **USEPA Lakewood Superfund Site (Site #80)** has contaminated groundwater beneath the rail alignment that extends approximately between Clover Creek Drive Southwest and New York Avenue Southwest.
- **Fort Lewis Logistics Center Superfund Site (Site #82)** has contaminated groundwater beneath the rail alignment that extends east of the alignment from approximately Lake Street to 41st Division Way.

Construction activities in contaminated areas could result in public health or environmental effects that could result in the following:

- Release and spread of contaminated soil encountered during Project construction activities such as trenching, excavation, and grading.
- Altering the flow direction and gradient of contaminated groundwater (although Project construction plans do not extend into groundwater).
- Creating preferential pathways for contamination to migrate due to construction activities that change soil porosity, such as the installation or alteration of utility trenches and roadbeds.
- Accidental hazardous materials spills.

All encounters and releases of hazardous materials could delay construction and increase construction costs because of the complex laws governing the cleanup of contaminated media and the expense associated with cleanup and disposal. However, the identified effects can be reasonably managed.

In addition to general worker safety and public health concerns, the types of construction effects specific to the Project may include managing and disposal of:

- Contaminated Soil
- Creosote Treated Railroad Ties
- Rail Ballasts

- Spills
- Underground Storage Tanks (*unlikely*)
- Demolition Waste

During operations, parking areas would be a source of potential contaminants from oil and fuel dripping from parked vehicles that could enter stormwater or pervious surfaces and eventually reach groundwater. Possible fuel or lubricant dripping from train engines along the rail line and in the stations, as well as maintenance of rail cars in the layover yard is expected. There would be no increase in the transport of hazardous materials as the Amtrak Cascades trains would not be carrying hazardous material in bulk. Per current practice, freight trains would continue to transport hazardous materials along the Puget Sound route.

WSDOT can inherit cleanup liability when:

1. It acquires a contaminated site,
2. Construction activities spread or cause contamination to become worse, or
3. Final project construction prevents or obstructs a potentially liable party from conducting remedial activities.

In situations where there is more than one liable party, each party is jointly and severally liable for costs associated with cleanup of a site and cost to repair damages to natural resources. Cleanup liability can become an expensive immediate or long-term cost.

How can identified effects be minimized?

No Build Alternative

No minimization is proposed under the No Build Alternative since there are no effects.

Build Alternative

Minimization measures can provide details for minimizing environmental risks, construction costs and schedule delays. Minimization measures such as pre-construction planning documents can reasonably address the specific concerns related to contaminated soil, creosote treated wood and rail ballasts. Standard minimization measures that help avoid, control and manage these potential effects include, but are not limited to:

- Site-specific hazardous material investigations,
- Project-specific hazardous material management plans,
- Stormwater Site Pollution Prevention Plans,

- Temporary Erosion and Sedimentation Control Plans,
- Spill Prevention, Control and Countermeasure Plans, and
- Design plans and contract provisions to require BMPs that prevent or minimize environmental and project effects.

With respect to inheriting cleanup liability, the preference is to avoid acquiring, excavating, or dewatering contaminated sites. However, when no feasible alternative or design option is available, WSDOT must manage the risks by performing all appropriate inquiry before acquiring and building on potentially contaminated property. Prior to acquisition of any the proposed parking areas, a combined Phase I and II Environmental Site Assessment is recommended.

With respect to construction work at Freighthouse Square, prior coordination with Ecology must be made to ensure any ground work is in compliance with the environmental Restrictive Covenant. Construction controls can be managed through the variety of standard minimization measures bulleted above.

Chapter 1 – Project Description

Introduction

Under the High-Speed Intercity Passenger Rail (HSIPR) Program and pursuant to a programmatic Tier I Environmental Assessment (EA) the Federal Railroad Administration (FRA) has approved an application from the Washington State Department of Transportation (WSDOT) to improve the Pacific Northwest Rail Corridor (PNWRC), a federally designated high-speed rail corridor. One project included in the PNWRC application is the Point Defiance Bypass Project (the Project), which would respond to deficiencies in the existing rail operations around Point Defiance. This Discipline Report has been prepared in support of the project-specific EA for the Point Defiance Bypass project.

The Project is located in Pierce County along an existing approximately 20-mile rail corridor between Tacoma and Nisqually.² The Project would provide for the re-routing of Amtrak passenger trains from the BNSF rail line that runs along the southern Puget Sound shoreline (Puget Sound route) to the Point Defiance Bypass route, an existing rail corridor that runs along the west side of I-5. The Project would consist of railroad track and support facility improvements, and relocation of the Tacoma Amtrak Station to Freighthouse Square in Tacoma.

Purpose and Need

As described above, the Point Defiance Bypass route is part of the larger PNWRC. Within Washington State, the vision for the PNWRC is to “...improve intercity passenger rail service by reducing travel times and achieving greater schedule reliability in order to accommodate growing intercity travel demand...”³.

The purpose of the Project is to provide more frequent and reliable high-speed intercity passenger rail service along the PNWRC between Tacoma and Nisqually. In conformity with the decisions under the Tier 1 Programmatic EA, the PNWRC Improvement Program has reduced the overall environmental effects of providing improved passenger rail service with the use of an existing transportation corridor and associated infrastructure, rather than creating a new corridor.

² *The three owners of the project corridor are Sound Transit, Tacoma Rail, and BNSF.*

³ *WSDOT 2009*

The Project is needed to address the deficiencies in the existing rail alignment around Point Defiance. The existing alignment (Puget Sound route), shared by freight and passenger rail traffic, is near capacity and is therefore unable to accommodate additional high-speed intercity passenger rail service without substantial improvements. In addition, the existing alignment has physical and operational constraints that adversely affect both passenger train scheduling and reliability.

Improving intercity passenger rail service in the project area and meeting the Project needs would be accomplished by:

- **Enhanced Frequency:** Increasing Amtrak Cascades round-trips from four to six by 2017 to meet projected service demands.
- **Improved Reliability:** Reducing scheduling conflicts with freight trains that often result in delays, and by minimizing or avoiding operational delays (e.g., drawbridge openings) and weather-related delays (e.g., mudslides), and improving on-time performance from 68 percent to 88 percent.
- **Enhanced Efficiency:** Enhancing the efficient movement of people by decreasing trip times by 10 minutes, and reducing the amount of time passenger trains spend yielding to freight movements.
- **Improved Safety:** Constructing at-grade crossings with upgraded safety features, including wayside horns, median barriers, advance warning signals, and traffic signal improvements.

What alternatives are being considered for the Point Defiance Bypass Project?

FRA and WSDOT conducted an evaluation of three build alternatives: the Point Defiance Bypass Alternative, the Shoreline Alternative, and the Greenfield Alternative. Two of the alternatives (the Shoreline Alternative, and the Greenfield Alternative) were eliminated from further study. Although both alternatives could meet the Project's purpose and need, they were determined to be impracticable and unfeasible due to technical constraints, high construction costs, and significant environmental effects. Grade separations were also evaluated for further consideration. FRA and WSDOT's preliminary analysis revealed that current and projected future traffic volumes do not warrant the construction of new grade-separated crossings.

What's happening in the bypass corridor today?

The rail line between TR Junction and East "D" Street in Tacoma hosts both freight and commuter trains, including freight operators Tacoma Rail

and BNSF, and Sound Transit's *Sounder* commuter rail service. Freight train traffic between TR Junction and East "D" Street averages under two trains per day, while Sound Transit currently operates 18 trains per day between Freighthouse Square and Seattle each weekday, and also offers occasional special event trains, usually on weekends, to serve sporting and other events in Seattle. *Sounder* service to Lakewood begins in late 2012.

What would happen if the Project were not built?

If the Project were not built (the No Build Alternative), Amtrak's Cascades and Coast Starlight passenger train service would continue to use the existing Puget Sound route. The No Build Alternative includes only the minor maintenance and repair activities necessary to keep the existing Puget Sound route operational. With the No Build Alternative, it would be expected that as freight traffic increases, congestion would adversely affect Amtrak service reliability, and the travel time for Amtrak trains between Seattle and Portland would increase.

Along the Point Defiance Bypass route, the Tacoma Rail and BNSF freight services would continue. The at-grade crossings at Clover Creek Drive Southwest, North Thorne Lane Southwest, Berkeley Street Southwest, 41st Division Drive, and Barksdale Avenue Southwest would not be upgraded.

Sound Transit's *Sounder* commuter passenger trains will become operational in late 2012 between the Tacoma Dome Station at Freighthouse Square in Tacoma and Sound Transit's Lakewood Station (on the Point Defiance Bypass route) with as many as 18 *Sounder* trains per day.

What are the proposed improvements and related activities of the Point Defiance Bypass Project?

The Project consists of railroad track and support facility improvements, and the relocation of Amtrak's Tacoma Station. Exhibit shows the components of the Build Alternative. The following details specific components of the Build Alternative.

- **Construct New Track Adjacent to the Existing Main Line** – A new 3.5-mile track adjacent to the existing main line would be constructed from South 66th Street (Rail MP 6.9) in Tacoma to between Bridgeport Way SW (Rail MP 10.4) and Clover Creek Drive SW (Rail MP 10.9) in Lakewood.
- **Reconstruct and Rehabilitate the Existing Main Line** – Starting just southwest of Bridgeport Way Southwest (Rail MP 10.4) in Lakewood, the existing track would be reconstructed to a location southeast of the I-

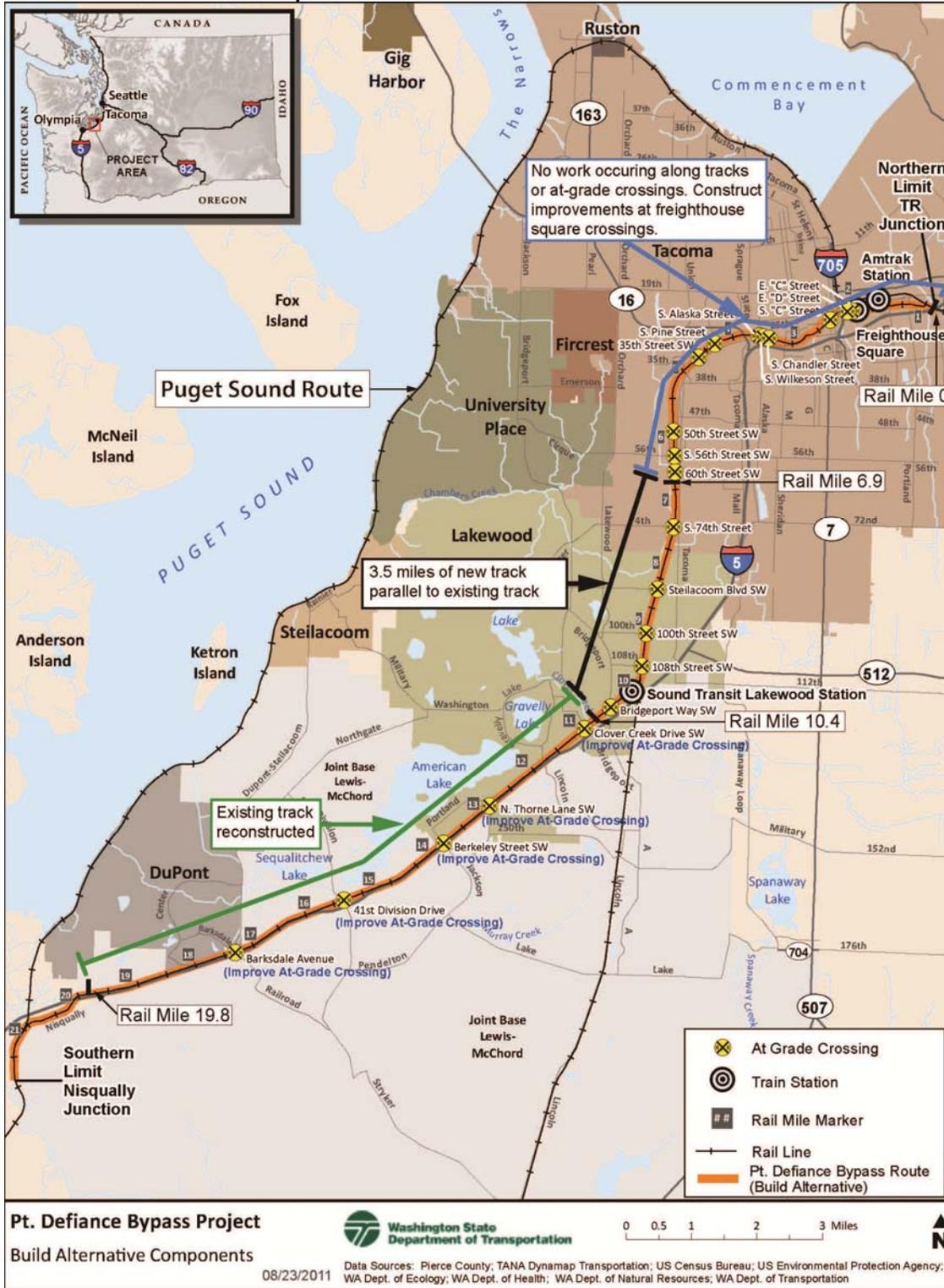
5/Mounts Road Southwest interchange (Rail MP 19.8) at Nisqually Junction.

- **Improvements at at-Grade Crossings** – Several grade crossings would be improved with wayside horns, gates, traffic signals and signage, sidewalks, median separators, and warning devices. These crossings include Clover Creek Drive Southwest, North Thorne Lane Southwest, Berkeley Street Southwest, 41st Division Drive and Barksdale Avenue.
- **Tacoma Amtrak Station Relocation** – The existing Tacoma Amtrak Station would be relocated from its Puyallup Avenue location to the Tacoma Dome Station at Freighthouse Square, at 430 E. 25th Street in Tacoma.

What are the proposed operational changes that would result from the Point Defiance Bypass Project?

Amtrak's existing Cascades and Coast Starlight passenger train service would be rerouted from the Puget Sound route along the Puget Sound shoreline to the Point Defiance Bypass route. The Project would also provide for additional Amtrak Cascades service by increasing the number of round trips provided from 4 to 6, or a total of 12 Cascades service train trips. Amtrak Coast Starlight would also travel on the Point Defiance Bypass route for a total of two Coast Starlight service train trips. The speed of these passenger trains would be up to 79 mph.

Exhibit . Build Alternative Components



Chapter 2 – Methodology

Discipline Study Overview

A Hazardous Material Discipline Report is broad in scope and identifies sites of concern, particularly those located along the right-of-way that have documented contamination or are suspected based on current or historical practices.

The purpose of a Hazardous Materials Discipline Report is to identify and evaluate known or potential contaminated sites that may:

- Affect the environment during construction work,
- Create significant construction effects, and/or
- Incur cleanup liability to WSDOT.

The objective of a discipline report is to conduct an appropriate level of documentation and analysis necessary to allow informed decisions regarding the selection of alternatives, minimization measures, and/or the necessity of initiating early coordination with relevant regulatory agencies.

This report was conducted in accordance with the WSDOT's *Environmental Procedures Manual* (M31), [Chapters 411.04](#) and [447.05\(2\)](#) for Discipline Reports.

Methodology

This section describes the research conducted to identify and evaluate contaminated sites that may affect the environment, construction, or cleanup liability. The research is conducted by an environmental professional who reviews previous investigations, evaluates geologic information, researches regulatory and historic records, and conducts outside field inspections from public access points. After gathering information, the specialist evaluates identified sites of concern and assigns a risk ranking to prioritize sites that may need avoidance and minimization. The following subsection describes additional details of the research and analysis involved.

Previous Investigations

Reviewing past investigations such as NEPA/SEPA documents, and discipline and sampling reports can provide valuable information. The environmental professional uses discretion to evaluate the referenced report's scope of work, study area, technical quality, and relevance. With careful consideration, previous investigations can be a useful resource.

Geologic Review

Geologic information is used to assess potential migration of known or suspected contaminants that may affect a project. In areas where contaminated groundwater may be a concern, a review of soils and groundwater conditions can be researched in Washington State Department of Ecology (Ecology) well logs and site cleanup files.

Regulatory Review

Regulatory database records are reviewed to identify known or suspected environmental concerns. The US Environmental Protection Agency (USEPA) and Ecology are responsible for regulating the generation, use, transport, and disposal of hazardous materials and waste in the state of Washington. These agencies maintain databases of known and suspected contaminated sites and businesses, and industries that use, store, or generate hazardous materials. The objective of the regulatory review is to identify and document known releases of hazardous wastes into the environment, and to identify those businesses and industries that generate, store, or transport regulated hazardous materials where potential releases could occur.

Historical Review

A historical records review assesses the nature of past and current land uses of the study area and adjacent properties. Historical record sources are reviewed for indications of past occupants or businesses that may have had the potential to affect soil or groundwater. Where available, the historical record sources include historical aerial photos, city directories, Sanborn and topographical maps, site assessor records, interview records, and any applicable historical records reasonably available.

Windshield Survey

A windshield survey physically observes properties within and immediately adjacent to the project corridor. The windshield survey is limited to features readily observed from public access points and does not include entering or viewing conditions within buildings. The windshield survey physically observes and field verifies the location of properties

identified from the regulatory database and historical records review. The windshield survey includes a visual review to identify and record any land uses likely to generate hazardous materials and the presence of recognized environmental conditions which have the obvious potential to affect a project at identified ground disturbance areas.

Screening and Risk Analysis

A screening process narrows a long list of identified sites of concern to a smaller, more relevant subset of sites that warrants additional investigation (such as Ecology file reviews, interviews, or a site visits). Each site is analyzed individually and is screened based on an environmental professional's judgment when considering:

- Acquisition plans (e.g., minor strip or total parcel);
- Type of construction planned in the area (e.g., trenching, cut slopes, drilling, depths of excavation);
- Affected media on the site of concern (e.g., soil, groundwater, surface water);
- Chemical of concern on the site (e.g., petroleum vs. solvents); and
- Groundwater depths and flow direction.

After screening, a validated list of sites of concern is compiled. This list only identifies sites that have the potential to affect the environment, project construction or cleanup liability.

A risk analysis is applied to the list of sites of concern. The risk analysis prioritizes sites to help determine the need for avoidance and minimization, while taking associated costs and liability into consideration. Risk levels are based on probable extent of contamination related to planned acquisition and excavation work. Sites are ranked as defined below:

- **Low Impact:** This risk level identifies sites where a potential concern exists, but the likelihood for the site to affect a project is low. Example sites include heating oil tanks, asbestos and lead-based paint associated with residential homes. Another example is a site with minor soil contamination located at a distance and gradient that makes migration of contaminants highly unlikely.
- **Moderate Impact:** This risk level identifies sites where concern exists because of historical activities, and/or the site may likely affect the study area but sufficient evidence is not available. A site labeled as a moderate risk is typically straightforward to manage, where the area of contamination is small to medium in size and the potential contaminants are not extremely toxic or difficult to treat. Example sites include gas stations, auto repair shops, most

underground storage tanks and large buildings with asbestos or lead-based paint.

- **High Impact:** This risk level identifies sites where concern exists because of historical activities, contamination is known and extensive, and/or the site may have a significant impact to the project. In general, high impact sites are properties that possess a potential for substantial soil, groundwater, or sediment contamination, or the information necessary to predict remedial costs is lacking. The site may be contaminated over a large area by a single contaminant or over a smaller area by multiple contaminants. Potentially, high impact sites typically are large, have large volumes of contaminated materials, or have a long history of industrial or commercial use. Sites that are complicated by widespread contamination or contamination that is difficult to treat would typically involve additional research, investigation and possible regulatory involvement. Examples of complicated sites are dry cleaners, wood treating operations, metal plating facilities, or other operations that use or used large amounts of hazardous materials.

Regulatory File Review

Additional investigations through regulatory website and/or file reviews are performed when additional site specific information is needed to further evaluate potential effects. Web site and file reviews are typically necessary for moderate and high risk sites that:

- Have insufficient information,
- Are listed on a state or federal cleanup database (e.g., SCS, VCP, LUST) that are located immediately adjacent to or hydraulically up gradient of a project, or
- Are located where ground disturbance or acquisition is planned.

Deviations

In accordance with WSDOT's *Environmental Procedures Manual* (M31), [Chapters 411.04](#) and the *Guidance and Standard Methodology for WSDOT Hazardous Materials Discipline Reports (June 2009)*, it is appropriate to "right size" discipline reports and tailor the work to meet a project's specific documentation needs. As such, a reduced level of investigation is appropriate for the Project for the following reasons:

- The *Hazardous Materials Technical Memorandum*⁴ prepared in 2007 evaluated the corridor from South 66th Street south to Nisqually.

⁴ WSDOT 2007a

- A Final Environmental Impact Statement (FEIS)⁵ conducted in 2002 evaluated hazardous materials in the rail corridor from East “D” Street in Tacoma south to Bridgeport Way Southwest in Lakewood.
- The area of ground disturbance is minimal, where excavation work is minor and would not generate large volumes of soil for disposal.
- Groundwater would not be encountered during construction work.
- Only three proposed parking areas are evaluated for potential acquisition.

To scale the work to an appropriate level of detail based on Project specifics, the following standard work was altered:

- Geologic review was limited to referencing Ecology’s records, the 2007 *Hazardous Materials Technical Memorandum*,⁶ the *Soils and Geology Discipline Report*,⁷ and the *Hydrology and Water Quality Technical Memorandum*.^{8,9}
- The regulatory record search radius of one mile was scaled back to ¼ mile based on limited ground disturbance and no groundwater work.
- The regulatory record search focused on two areas; first, the Freighthouse Square area due to facility improvements and proposed parking lot areas that may be acquired; second, the area of the rail corridor between Rail MP 10.4 and Rail MP 21.5 involving soil disturbance below two feet of the existing surface. Soil disturbance below two feet generally spans 11 miles from Bridgeport Way Southwest (Rail MP 10.4) south to the Nisqually Junction terminus (Rail MP 21.5).
- Historical review was limited to referencing the previous reports conducted in the study area.

These deviations would not compromise the purpose or key objectives of the report described previously in the Discipline Study Overview section.

⁵ FTA 2002

⁶ WSDOT 2007a

⁷ WSDOT 2007b

⁸ WSDOT 2007c

⁹ The 2007 Point Defiance Bypass Project reports covered the alignment between South 66th Street (Rail MP 6.92) to the BNSF Mainline (Rail MP 21.23). The 2007 reports provided static geologic, hydro-geologic and historical information for this report’s Corridor Soil Disturbance Study Area (Rail MP 10.4 through Rail MP 21.5).

Chapter 3 – Studies and Coordination

This section summarizes the research performed and describes the resources used to identify potential hazardous material effects. This section also provides a list of identified sites of concern.

Previous Investigations

Investigations reviewed to support this report include:

- Point Defiance Bypass Project Discipline Reports for the South 66th Street to Nisqually alignment (Rail MP 6.92 to Rail MP 21.23)
 - *Hazardous Materials Technical Memorandum* (August 2007)¹⁰
 - *Land Use Technical Memorandum* (August 2007)¹¹
 - *Soil and Geology Technical Memorandum* (August 2007)¹²
 - *Cultural Resources Survey / Discipline Report* (March 2008)¹³
 - *Hydrology and Water Quality Technical Memorandum* (August 2007)¹⁴
- Point Defiance Bypass Project Discipline Reports for the Tacoma TR Junction to Nisqually alignment (Rail MP 0.67 to MP 21.5)
 - *Draft Land Use Discipline Report* (October 2011)¹⁵
 - *Soils and Geology Discipline Report* (November 2011)¹⁶
 - *Water Resources Discipline Report* (August 2012)¹⁷
- *Sound Transit Lakewood to Tacoma Commuter Rail and SR 512 Park and Ride Expansion Final Environmental Impact Statement* (Federal Transit Administration, 2002)¹⁸
 - South Tacoma, Section 3.11 – Environmental Health – Hazardous Materials
 - Lakewood, Section 4.11 – Environmental Health – Hazardous Materials

The *Point Defiance Bypass Hazardous Materials Technical Memorandum* was completed in 2007 by HDR Engineering, Inc. The investigation

¹⁰ WSDOT 2007a

¹¹ WSDOT 2007d

¹² WSDOT 2007b

¹³ WSDOT 2008

¹⁴ WSDOT 2007c

¹⁵ WSDOT 2011a

¹⁶ WSDOT 2011b

¹⁷ WSDOT 2012

¹⁸ FTA 2002

covered a 1,000-meter (3,280-foot) search radius of the Project corridor between South 66th Street in South Tacoma to the Nisqually South Terminus. HDR obtained information within the study area through a search of regulatory agency databases (through Environmental Data Resources, Inc., a subcontracted company), reviewing previous Phase I and Phase II Site Assessments, contacts with government agencies, and a review of aerial photographs. This report builds upon HDR's 2007 *Hazardous Materials Technical Memorandum*.

Geologic Review

Geologic information was obtained from the 2007 *Hazardous Materials Technical Memorandum*. For specific areas of interest, site specific geologic information was obtained from Ecology cleanup files. Ecology files that were reviewed are summarized below under the Regulatory File Review section.

Regulatory Review

The *Hazardous Material Technical Memorandum* documents the regulatory records search of the entire project corridor through 2007. The *Technical Memorandum* identified 254 reasonably predictable sites and 13 substantially contaminated sites within the 1,000-meter (3,280-foot) radius study area.¹⁹

Of the 254 reasonably predictable sites, 23 sites were identified as having a potential to affect the Project. Of the 23 sites, 21 appeared on a regulatory list and two were identified for "area wide" contamination (Sound Transit Railroad property and the Tacoma Smelter Plume).

Of the 13 substantially contaminated sites, seven sites were identified as having a potential to affect the Project. Of the seven sites, only three were next to or within the construction areas that would have excavation 2-3 feet below the existing ground surface.

To identify additional sites that may have been listed from 2007-2012, an online review of Ecology's Facility Site Atlas was conducted. The Facility Site Atlas is an interactive mapping tool of Ecology's regulated facilities and the Washington Department of Health's regulated public water systems. In Ecology's Facility Site Atlas, regulated facilities identify known or suspected contaminated sites or businesses that generate hazardous materials and may have had the potential to affect soil or

¹⁹ The terminology "Reasonably Predictable" or "Substantially Contaminated" used to categorize sites is no longer used in WSDOT's Environmental Procedures Manual, Chapter 447- Hazardous Materials. This report uses the terms "low," "moderate," or "high" to gauge the significance of the impact. This is consistent with the current Guidance and Standard Methodology for WSDOT Hazardous Materials Discipline Report, June 2009.

groundwater. Researching environmental databases through Ecology's Facility Site Atlas includes, but is not limited to, the following types of sites:

- Federal, state, voluntary and/or independent sites that are undergoing investigations and/or cleanup
- Location of registered underground storage tanks (USTs) and leaking underground storage tanks (LUSTs)
- Facilities that use, generate, treat, store, or dispose of hazardous wastes and/or substances
- Transporters of hazardous wastes
- Solid waste landfill locations
- Unauthorized spills and releases of hazardous/regulated substances

All active and inactive facilities were researched within a ¼ mile (1,320 feet) radius of Freighthouse Square and areas of ground disturbance that extend below two feet of the existing surface. The ground disturbance areas generally occur along 11 miles between Bridgeport Way Southwest in Tacoma (Rail MP 10.4) south to the Nisqually Junction terminus (Rail MP 21.5). These areas have the potential to either encounter contamination (if present) or have increased risk associated with cleanup liability through property acquisition. Attachment B shows areas of soil disturbance, potential acquisition sites and hazardous materials sites of concern.

The review of Ecology's Facility Site Atlas identified 58 listed sites within the Freighthouse Square area and 65 sites within soil disturbance areas. A list of all identified sites is included in Attachment C, and a validated list of sites of concern is presented in Exhibit and Exhibit under the Site Screening section.

Historical Research

Historical research is documented in the 2007 *Hazardous Materials Technical Memorandum*. The *Land Use*²⁰ and *Cultural Resources*²¹ reports were also reviewed to ascertain any new relevant information that may identify potential hazardous material concerns. Rather than duplicating efforts, this report relied on these reports and no additional historical research was conducted.

Windshield Surveys

A guided tour of the entire project rail corridor was organized on March 10, 2011. The tour provided the opportunity to physically observe current land use patterns and discuss planned Project features. No additional site

²⁰ WSDOT 2007d and 2011a

²¹ WSDOT 2008

visits were performed. The location of every site identified during the regulatory record research was verified by mapping the listed address on both Bing and Google Maps.

Screening

The initial screening process narrows a long list of sites to a subset of validated sites that warrant further investigation. After screening, a list of validated sites of concern is compiled. This list only identifies sites that have the potential to affect the environment, project construction or the cleanup liability.

The regulatory record search identified a total of 149 sites, as listed in Attachment C - Regulatory Record Search: Initial Screening Tables. To identify those sites that pose a potential risk to the Project, the following screening methodology was applied:

- Eliminate sites listed only on a Hazardous Waste Generator database that are located away from areas of interest (Freighthouse Square and soil disturbance areas). The hazardous waste related database identifiers include Resource Conservation Recover Act – Small Quantity Generator (RCRA-SQG), Facility Index System (FINDS), Waste Manifest (WA Manifest), Emergency/Haz Chem Rpt Tier2, Hazardous Waste Planner, Haz Waste Management Activity, Stormwater General Permit, Revised Site Visit Program (RSVP), Local Source Control (LSC), Urban Waters Site Inspection (USI) or Urban Waters Initiative (UWI). Inclusion on these lists indicates that a site uses or generates regulated materials as part of their business practices, but gives no indication of on-site soil or groundwater contamination.
- Eliminate sites listed only on SPILLS database. Inclusion on this list indicates that a one-time spill has occurred. These sites are not included on other lists that indicate soil and/or groundwater contamination is present.
- Eliminate sites listed only on the Underground Storage Tank (UST) database and located a sufficient distance away from areas of interest.
- Maintain a validated list of sites for further review for:
 - All superfund sites
 - Regulated sites with documented releases (known contamination), such as sites listed as a State Cleanup Site (SCS), Confirmed or Suspected Contaminated Site (CSCS), Leaking Underground Storage Tank (LUST), Independent Cleanup Report (ICR), Independent Remedial Action Program (IRAP), or Voluntary Cleanup Program (VCP).

- All regulated sites that are on or immediately adjacent to Freighthouse Square, proposed parking lots or soil disturbance areas.

Through this process, 67 sites were validated as a site of concern as shown in Exhibit and Exhibit .

Regulatory File Review

Following the regulatory record research, Ecology files were reviewed to obtain additional information to further evaluate site risks. Ecology site files were selected based on the locations of those sites, the types of contaminants and Project specific plans, such as acquisition or excavation work.

The following Ecology Toxic Cleanup Program files were reviewed:

- Freighthouse Square, Ecology ID 1351
- Smurfit Stone Container, Ecology ID 17167958
- Precision Pattern, Ecology ID 85239825
- Spring Air NW, Ecology ID 9111625

The following USEPA Superfund on-line files were reviewed:

- American Lake Gardens / McChord AFB, EPA ID 110009314492
- Commencement Bay Nearshort/Tideflats, EPA ID WAD980726368
- Fort Lewis Logistics Center, EPA ID 9214053465
- Lakewood Ponders Corner, EPA ID 110015580469

Exhibit . Validated Sites of Concern – Freighthouse Square Area

| Map ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|-----------|--|---|---|
| 1 | Johnnys Fine Food 319 East 25 th Street Tacoma | Site ID# 10734 Listing: RSVP Release: No documented releases. | Low Impact Located north of proposed parking lot #2 (PP2) ¹ |
| 2 | Freighthouse Square 25 th & "G" Street East Tacoma | Site ID# 1351 Listing: VCP Release: Site received a No Further Action determination in July 2003. An Environmental Covenant restricts certain activities. Site has contaminated groundwater (priority pollutant metals) and reports that petroleum contaminated soils have been remediated. Ongoing monitoring is active. Environmental Restrictive Covenant indicates the remedial work results in residual concentrations of diesel, heavy oil, lead and cadmium exceed MTCA Method A residential cleanup levels for groundwater. The covenant outlines limitations and restrictions for property use. | High impact Contamination exists on site, and construction work would require ground work and excavation. Any disturbance work on this property requires prior Ecology approval and must be in compliance with the limitations set forth in the environmental Restrictive Covenant. |
| 4 | Puget Sound Specialty 706 East 25 th Street Tacoma | Site ID# 23657 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located on rail alignment, east of Freighthouse Square and north of PP4 ¹ |
| 5 | SME Solutions 313 East 26 th Street Tacoma | Site ID# 3722 Listing: UWI Release: No documented releases. | Low Impact Located immediately north of PP2 ¹ |
| 6 | HJB Marine 601 East 26 th Street Tacoma | Site ID# 3081 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located immediately south of Freighthouse Square, west of PP4 ¹ |
| 8 and 20 | Melody Meats 323 East 26 th Street Tacoma Gary W Johnson 323 East 26 th Street Tacoma | Melody Meats Site ID# 24527 Listing: UWI Release: No documented releases. Gary W Johnson Site ID# 14281979 Listing: UST Release: No documented releases. | Low Impact Located immediately south of PP2 ¹ and west of PP3 ¹ |
| 9 | Mystic Mocha 402 East 26 th Street Tacoma | Site ID# 19140 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located immediately south of PP3 ¹ |
| 14 | BNRR Tacoma Yard Pond 605 Puyallup Street Tacoma | Site ID# 1373 / Cleanup Site ID# 274 Listing: IRAP , Industrial Southwest GP) Release: Site received a No Further Action determination in 1996. Soil is suspected to be contaminated with Halogenated Organics. Active O&M/monitoring is ongoing. | Low Impact No groundwater contamination is reported and the site is located a sufficient distance away from areas of interest. The site is hydraulically down gradient ¹ (flows away) from the study area. |
| 15 and 42 | Bulls Eye Indoor Range 414 Puyallup Avenue, Ste B Tacoma Bulls Eye Supply 414 Puyallup Avenue Tacoma | Bulls Eye Indoor Range Site ID# 19339 Listing: RSVP, UWI Release: No documented releases. Bulls Eye Supply Site ID# 11329 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located immediately north of PP1 ¹ |

| Map ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|-----------|---|---|--|
| 17 | Smurfit Stone Container Corp 817 East 27 th Street Tacoma | Site ID# 17167958 / Cleanup Site ID: 4529 Listing: SCS, VCP , HazWaste Generator, Industrial Southwest GP Release: Petroleum contaminated groundwater is confirmed, and petroleum contaminated soil is suspected. Ecology ranking is 5 (with #1 being a high priority and #5 being the lowest priority). | Low Impact Site is located near intersection of East "G" Street and East 27 th Street; a significant distance away from the study area. Petroleum groundwater is confirmed and Ecology's file reports the shallow groundwater at 3-4.5 feet bgs flows to the southwest, which is hydraulically down gradient of (flows away) from the rail line. <u>However</u> , Site 31 across East "G" Street to the west reports groundwater in the opposite direction, which would be toward the rail line. Petroleum contamination is relatively straightforward to manage. |
| 22 and 41 | Gonzalez Motors 301 Puyallup Avenue Tacoma Art The Studio 301 Puyallup, Ste C Tacoma | Gonzalez Motors Site ID# 91599266 / Cleanup ID# 11037 Listing: LUST, UST Release: Petroleum contaminated soil was independently remediated to below cleanup levels. Benzene, lead and other non-halogenated organics exist below cleanup levels in soils. Art The Studio Site ID# 2285826 Listing: UWI Release: No documented releases. | Low Impact No groundwater contamination is reported and the site is located a sufficient distance away from areas of interest. The site is hydraulically down gradient ² (flows away) from the study area. |
| 24 | BNSF Tacoma Fueling Facility 1001 Puyallup Avenue Tacoma | Site ID# 7981609 / Cleanup ID# 1634 Listing: SCS Release: Groundwater is contaminated with solvents and petroleum. Soil has petroleum contamination, and along with suspected solvents. Ecology rank of 5. | Low Impact Groundwater is contaminated, however the site is located a sufficient distance away from the study area. The site is hydraulically down gradient ² (flows away) from the study area. |
| 25 | South Sound Radiator 509 Puyallup Avenue Tacoma | Site ID# 8785404 / Cleanup Site ID# 3600 Listing: SCS Release: Soil is contaminated with solvents and petroleum. Groundwater is suspected to be contaminated with the same. Ecology rank of 2. | Low Impact Groundwater contaminated is suspected, however the site is located a sufficient distance away from the study area. The site is hydraulically down gradient ² (flows away) from the study area. |
| 26 | Industrial Parts Frictions I 409 East 26 th Street Tacoma | Site ID# 99982525 Listing: HazWaste Generator Release: No documented releases. | High Impact This site is PP3 ¹ and may be acquired for parking. The site handles or generates hazardous materials which may have contaminated the site. Any acquisition in a historically heavy commercial and industrial area should be considered a high risk with respect to inheriting cleanup liability. Conducting due diligence (i.e., sampling), property negotiations, and possibly establishing a contractual indemnification clause prior to acquisition may create a significant impact to Project schedule or budget. |
| 27 | F & E Investments 401 East 25 th Street Tacoma | Site ID# 99973128 Listing: UST Release: No documented releases. | Moderate Impact Located immediately east of PP1. An inactive UST is reportedly present, and a release (although not suspected by Ecology) could likely impact PP1 due to the presumed shallow groundwater flow to the north / northeast. ² |

| Map ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|-----------|--|--|---|
| 28 and 40 | Spring Air Northwest 725 East 25 th Street Tacoma For Kids Only 725 East 25 th Street Tacoma | Site ID# 9111625 / Cleanup ID# 5476 Listing: HazWaste Generator (x2), LUST, VCP and UST Release: Soil and groundwater is contaminated with petroleum products. For Kids Only: Site ID# 18665 Listing: UWI, RSVP Release: No documented releases. | Moderate Impact Located immediately to the northeast of (diagonally opposite of) Freighthouse Square. Groundwater is reported contaminated, however Ecology's file documents the groundwater flow to the north east, which is hydraulically down gradient (flows away from) the study area. |
| 29 | SME Corp 311 East 26 th Street Tacoma | Site ID# 82577212 Listing: HazWaste Generator (x3) Release: No documented releases. | Low Impact Located immediately south of PP2 ¹ |
| 30 | Puget Sound Metal 2607 East "G" Street Tacoma | Site ID# 9147902 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located south of the Freighthouse Square and Project rail alignment. |
| 31 | Precision Pattern Inc 2620 East "G" Street Tacoma | Site ID# 85239825 Listing: HazWaste Generator (x4), SCS, VCP , UWI, and Industrial Southwest GP Release: Ground water and soil was historically contaminated with solvents and petroleum products. Ecology rank of 5. Site received a No Further Action determination in March 2009. Active ongoing O&M/Monitoring. | Moderate Impact Located near intersection of East "G" Street and East 26 th Street, south of the study area. Ecology File shows diesel contaminated groundwater exists at concentrations below MTCA Method A cleanup levels. Ecology's file reports that "based on surrounding topography, which slopes up steeply to the west of the site, the direction of groundwater flow is presumed to flow east." A figure shows groundwater flowing, primarily to the north. This is hydraulically up gradient (flows toward) the study area. |
| 33 | Don Engle Distributing Inc 2601 East "F" Street Tacoma | Site ID# 75382517 Listing: UST , UWI and RSVP Release: No documented releases. | Moderate Impact Located south of Freighthouse Square. The site is located within 500 feet of the study area. Although no contamination is suspected, an unknown release from the UST may have contaminated shallow groundwater. The site is hydraulically up gradient ¹ (flows toward) of the study area. |
| 34 | Sound Transit 25 th Street 802 East 25 th Street Tacoma | Site ID# 5117180 Listing: UWI, RSVP Release: No documented releases. | Low Impact Located north of the rail alignment. |
| 37 | Industrial Tire Service ITS 423 Puyallup Avenue Tacoma | Site ID# 3291385 / Cleanup ID# 5316 Listing: UST, SCS, VCP (x2) , UWI Release: Soil is contaminated with metals, solvents and gasoline. Groundwater is suspected to be contaminated with the same. | Low Impact Although groundwater contamination is suspected, the site is located a sufficient distance away from the study area. The site is hydraulically down gradient ¹ (flows away) from the study area. |
| 38 and 55 | Golden Line Recycling Corp 217 East 25 th Street Tacoma Frontier Transportation Company 217 25 th Street Tacoma | Golden Line Recycling Corp Site ID# 610068 Listing: UWI, RSVP Release: No documented releases. Frontier Transportation Company Site ID# 27655611 Listing: UST Release: No documented releases. | Low Impact Located north of PP2 ¹ . Although a UST exists, the site is hydraulically down gradient ¹ (flows away) from PP2. ¹ |

| Map ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|-----------|--|---|--|
| 39 | Paramount Electric 225 South Tacoma Way Tacoma | Site ID# 77241262 Listing: LUST, UST , HazWaste Generator Release: Soil contaminated with Benzene, lead, non-halogenated organics and gasoline is reportedly cleaned up to below cleanup levels. Contaminated groundwater was not suspected. | Low Impact Located on intersection of South "C" Street and South Tacoma Way, which is a significant distance away from the Freighthouse Square area. It is next to the rail alignment, but this stretch does not require excavation or acquisition. |
| 44 | Tacoma Dome Station 500 Puyallup Avenue Tacoma | Site ID# 1266 Listing: SCS , Industrial Southwest GP Release: Petroleum contaminated soil and groundwater was reported as remediated. Ecology issued a No Further Action determination in January of 2001. An Environmental Covenant is assigned. Active O&M/Monitoring is ongoing. Ecology file is archived. | Moderate Impact This is the parking garage located west of PP1 ¹ and north of Freighthouse Square. Although the site is reported as remediated, it has an Environmental Covenant which typically indicates property restrictions due to residual contamination left in place. Any disturbance work (possible utility work) on this property requires prior Ecology approval and must be in compliance with the limitations set forth in the Environmental Covenant. |
| 45 | BNRR Tacoma Yard Parcel 8950001730 21 st Street & South "D" Street Tacoma | Site ID# 1267 Cleanup ID# 3554 Listing: VCP Release: Soil and groundwater is contaminated with petroleum products and "base/neutral/acid organics." Soil and groundwater is suspected of being contaminated with Polynuclear Aromatic Hydrocarbons. Ecology rank of 3. | Low Impact Located on 21 st Street and South "D" Street, which is a significant distance away from the study area. The site is hydraulically down gradient ¹ (flows away) from the study area. |
| 46 and 50 | Joseph Simon & Sons 2200 East River Street Whse 1 Tacoma PSE Tacoma Historical Coal Gas 2200 East River Street Tacoma Commencement Bay – Nearshore Tidelands Superfund Site - Tacoma Tar Pits OU3 | Site ID# 76785838 Listing: HazWaste Generator Release: No documented releases. Site ID# 48791451 Listing: HazWaste Generator (x2) Release: No documented releases. Site ID# EPA Superfund Site ID WAD980723795, Ecology Site ID# 221 & 48791451 Listing: SUPERFUND Release: Soils are contaminated with metals, non-halogenated solvents, Polychlorinated biPhenyls and Polynuclear Aromatic Hydrocarbons (PAHs). Groundwater is contaminated with metals, non-halogenated solvents and PAHs. | Moderate Impact Superfund site encompasses 12 square miles of tidelands, shoreline and adjacent land. The site is divided into four Operable Units (cleanup areas). The unit closest to the Freighthouse Square area is the Tacoma Tar Pits (OU3). <u>OU3 is located north of SR 509 on East River Street; a sufficient distance and hydraulic gradient away from the study area.</u> Although construction does not anticipate large amounts of excavation or encountering groundwater, if design plans change, special consideration must be made to ensure the Project does not contribute contamination via runoff that potentially affects soil, sediment, surface water, or alters or affects existing groundwater pathways (i.e., infiltration). Superfund sites require special precaution with respect to avoiding long-term cleanup liability. Construction work proven to spread or contribute to existing contamination may identify the agency as a liable party for cleanup. |
| 47 | TNT Reddaway Truck Line Inc 801 East 26 th Tacoma | Site ID# 64849946 Listing: HazWaste Generator, RSVP, UWI Release: No documented releases. | Low Impact Located east of the Freighthouse Square area. |
| 48 | Golden West Motel 503 East 26 th Tacoma | Site ID# 62113225 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located east of PP3 ¹ . |

| Map ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|---------|---|---|--|
| 49 | Manna Pro Co 518 Puyallup Avenue Tacoma | Site ID# 46689617 / Cleanup ID# 9332 Listing: LUST, UST Release: Soil and groundwater is contaminated with petroleum. | Moderate Impact Located on or near the parking garage (Tacoma Dome Station, Site #44) which is west of PP1 ¹ and north of Freighthouse Square. Any disturbance work (possible utility work) on this property might encounter petroleum contamination in the shallow groundwater. The site is hydraulically down gradient (flows away) from the study area. |
| 53 | Airspares 415 East 25 th Street Tacoma | Site ID# 39438729 Listing: HazWaste Generator Release: No documented releases. | High Impact This site is the PP1 ¹ area and may be acquired for parking. The site handles or generates hazardous materials which may have contaminated the site. Any acquisition in a historically heavy commercial and industrial area should be considered a high risk with respect to inheriting cleanup liability. Conducting due diligence (i.e., sampling), property negotiations, and possibly establishing a contractual indemnification clause prior to acquisition may create a significant impact to Project schedule or budget. |
| 54 | Pierce Transit Tacoma Dome 609 East 25 th Street Tacoma | Site ID# 25441163 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located at the eastern parking garage across from Freighthouse Square. |
| 58 | Stone Property Transit Site East 25 th & East "C" Street Tacoma | Site ID# 3782573 / Cleanup ID# 401 Listing: VCP Release: Soil is contaminated with Arsenic, other Metals, petroleum products and Polynuclear Aromatic Hydrocarbons (PAHs). Solvents in soil are below cleanup levels. Groundwater is suspected of being contaminated with metals, petroleum and PAHs. Ecology rank of 3. | High Impact This site is the PP2 ¹ area and may be acquired for parking. The soil is contaminated and groundwater is likely to be contaminated as well. Utility work would likely encounter contamination. The site is hydraulically up gradient ² (flows northwest) of Freighthouse Square. Any acquisition in a historically heavy commercial and industrial area should be considered a high risk with respect to inheriting cleanup liability. Conducting due diligence (i.e., sampling), property negotiations, and possibly establishing a contractual indemnification clause or court consent decree to limit liability prior to acquisition may create a significant impact to project schedule or budget. |

¹ The three Proposed Parking areas are referenced as PPI, PP2 & PP3 as shown in Sheet 5 of Attachment B.

² Shallow groundwater is presumed to follow the topography and flow toward the Puget Sound and Puyallup River to the north and northeast. This is consistent with three Ecology files in the immediate area.

Exhibit . Validated Sites of Concern – Soil Disturbance Areas (Coverage: Bridgeport Way in Tacoma to Nisqually Junction Terminus / Rail MP 10.4 to Rail MP 21.5)

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|---------|---|--|---|--|
| 83 | Entire rail alignment | Sound Transit Rail Property Area Wide | Not an Ecology listed site. The 2007 <i>Hazardous Materials Technical Memorandum</i> reports the rail property may contain shallow soil contamination from creosote-treated railroad ties, use of herbicides for vegetation control, fuel, solvents and other hazardous materials spills through the industrial districts of Tacoma and Lakewood, and heavy metal contamination on surface soils from the Tacoma smelter in Ruston, WA. Existing rail sections along the Project corridor are underlain by ballast material which may include slag from the Asarco smelter that historically operated in the north Tacoma area. Slag from this facility has been determined to contain high concentrations of numerous heavy metals, including arsenic. (Sound Transit EIS-Lakewood Section, May 2002) | High Impact Surface soils and rail ballast of entire rail alignment is potentially contaminated with a variety of contaminants. Approximately 11 miles of construction work would likely disturb or remove surface soils, rail road ties and ballast. |
| 84 | Entire rail alignment | Tacoma Smelter Plume – Pierce County Area Wide | FS ID# 62855481, Cleanup Site ID# 643 Listing: SCS Release: Soil is contaminated with arsenic and priority pollutant metals. Surface water is suspected to be contaminated with the same. The 2007 <i>Hazardous Materials Technical Memorandum</i> reports the Project footprint could contain contamination from the Tacoma Smelter Plant. Because the surface soils within the railroad right-of-way may not have been significantly disturbed since railroad construction in 1873, lead and arsenic concentrations in soils within the entire study area have the potential to be above the MTCA Method A cleanup level. | High Impact Top six inches of surface soils along the rail alignment may have arsenic and metals contamination. |
| 87/75 | 10.5 / E | Tune Up and Lube King 11924 Pacific Highway Southwest Lakewood | Site ID# 93774152 Listing: UST Release: No documented releases. | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |
| 88 | 10.2_8 / E | Lakewood Foreign Car Sales Inc. 11726 Pacific Hwy Southwest Lakewood | Site ID# 24535 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located immediately east of the track. No soil disturbance. |
| 90 | 10.3_31 / E | Flying B 18 aka: Flying B 18, NKS Mart, Sunmart 3 11747 Pacific Hwy Southwest Lakewood | Site ID# 89666788 Listings: UST, Enforcement Final, SCS Release: This site is listed for suspected petroleum contamination and is currently awaiting cleanup. An initial investigation was completed and filed 2/2/2011. | Low Impact Located away from rail alignment, east of Pacific Hwy. |
| 91/76 | 10.5_42 / E | AAMCO Transmissions 12006 Pacific Hwy Lakewood | Site ID# 13754378 Listings: UST (I) , HazWaste Generator Release: No documented releases. ISIS: The site was listed as having two USTs, one exempt for use of used waste oil and the other with unidentified contents is listed as closure in process as of 3/15/1982 | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |
| 94 | 10.5_43 / W | Northern Battery Co 12012 Pacific Hwy Southwest Tacoma | Site ID# 88196364 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|-----------|---|--|--|--|
| 95 | 10.6_48 / E | Lakewood Auto Body Inc. 12126 Pacific Hwy Southwest Lakewood | Site ID# 1982929 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |
| 96 | 10.4_38 / E | Texaco Station 632320398 11910 Pacific Hwy Southwest Lakewood | Site ID# 65589345 / Cleanup Site ID: 10058 Listings: UST, LUST , HazWaste Generator (x2) Release: Soil is contaminated with petroleum products (gas and diesel) metals, benzene, PCB contaminated below cleanup levels. Groundwater contamination is not suspected. Clean up started 12/11/1991 and the site was reported as cleaned up 2/4/1992. | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |
| 102/74 | 10.3_31 / E | U Haul Co of Lakewood 11740 Pacific Hwy Southwest Lakewood | Site ID# 2789629 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located immediately east of the tracks. No soil disturbance. ¹ |
| 98 | 10.3_33 / E | U Haul Co of Lakewood 55 11748 Pacific Hwy Southwest Lakewood | Site ID# 46845293 Listing: UST Release: No documented releases. ISIS: Diesel UST has been removed. | Low Impact Located immediately east of the tracks. No soil disturbance. ¹ |
| 99 | 10.3_30 / W | Kentucky Fried Chicken 11717 Bridgeport Way Southwest Lakewood | Site ID# 41671422 Listing: UST Release: No documented releases. ISIS: Unleaded gasoline UST has been removed. | Low Impact Located immediately west of the tracks. No soil disturbance. ¹ |
| 80 | 10.9 – 11.2 | USEPA Lakewood Superfund Site AKA: Lakewood Ponders Corner or Plaza Cleaners Near I-5 and New York Avenue Lakewood | EPA SUPERFUND , EPA ID# WAD050075662, Ecology ID# 224 Release: Groundwater contaminated with halogenated organic compounds. Soil was contaminated with the same, but reported as remediated. Environmental Covenant in place. EPA web page : Shows the groundwater plume extending between Clover Creek Drive Southwest and New York Avenue Southwest. The 2007 <i>Hazardous Materials Technical Memorandum</i> reports the site is located near Rail MP 11 and contaminated groundwater is under railway at 30-40 feet below the surface. Contact with contaminated groundwater is not expected. | High Impact Groundwater plume extends under rail alignment between Rail MP 10.9 to Rail MP 11.2. Most soil disturbance work is between 2-5 feet bgs, with some excavation going beyond five feet bgs around Rail MP 11.1 (assumed cut slope). Although construction does not anticipate encountering groundwater, if design plans change, special consideration must be made to ensure the Project does not intercept, alter or affect existing groundwater pathways (i.e., infiltration). Superfund sites require special precaution with respect to avoiding long-term cleanup liability. Construction work proven to spread or contribute to existing contamination may identify the agency as a liable party for cleanup. |

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|---------------|---|---|---|--|
| 103/77 | 10.4_37 / E | TOSCO Corp Site 25358830522 <i>Alternate names: Lakewood UNOCAL, UNOCAL 3588</i> 11919 Pacific Hwy Southwest Lakewood Conoco Phillips Company / 253588 11919 Pacific Highway Southwest Lakewood | Site ID# 41554792 Listings: UST, LUST , HazWaste Generator (x2) Release: Petroleum contaminated soil and groundwater. ISIS: Confirmed petroleum groundwater and soil contamination. | Low Impact Located away from the rail alignment, East of Pacific Hwy. No soil disturbance. Although there is petroleum contaminated groundwater, there is no soil disturbance planned. |
| 104 | 10.2_26 / W | Tyee Cleaners & Laundromat 4924 115 th Street Ct Southwest Lakewood | Site ID# 24488812 / Cleanup ID# 1783 Listings: VCP , HazWaste Generator Release: Groundwater and soil contaminated with halogenated organics. Soil has solvent contamination below cleanup levels. | Low Impact Located approximately 400 feet away from the rail alignment to the west. Although groundwater is contaminated with solvents, there is no soil disturbance planned at this rail section. |
| 106 | 10.6_50 / E | Jimmy Rays Cycle LLP 12132 Pacific Hwy Southwest Lakewood | Site ID# 11577 Listing: HazWaste Generator Release: No documented releases. | Low Impact Located immediately east of the tracks. Minimal soil disturbance. ¹ |
| 109 | 10.4 – 11.7 / E | Pacific Highway Southwest Improvements Pacific Hwy Gravelly Lake Drive to Bridgeport | Site ID# 8349 Listing: Construction Southwest GP Release: No documented releases. | Low Impact Road improvement work on Pacific Hwy located east of the rail alignment between Bridgeport Way to Gravelly Lake Drive. Road construction does not pose a significant hazardous material risk. |
| 110/78 | 10.9 / E | 7 Eleven 232414469 <i>Alternate names: 7 Eleven Store 14469, Seven Eleven # 14469, Seven Eleven 2324-14469</i> 12336 Pacific Hwy Southwest Lakewood | Site ID# 34768492 / Cleanup ID# 8811 Listings: LUST, UST , HazWaste Generator Release: Petroleum contaminated soil and groundwater. ISIS: Three USTs removed. Confirmed petroleum groundwater and soil contamination. | Moderate Impact Groundwater contamination is located immediately adjacent to rail alignment. Stockpile staging and minimal soil disturbance (2-5 feet) is planned. Petroleum contamination is relatively straightforward to manage, however construction work does not anticipate encountering groundwater. |
| 111/79 | 10.9_65 / E | Ponders Collision Center 12424 Pacific Hwy Southwest Bay A Lakewood | Site ID# 31842252 Listing: Haz Waste Generator Release: No documented releases. | Low Impact Located immediately east of the tracks. Project requires little to no ground disturbance. ¹ |
| 115 | 11.3_86 / E | AAA Loans & Gun Shop 12831 Pacific Hwy Southwest Lakewood | Site ID# 15057 / Cleanup Site ID# 11499 Listing: LUST Release: Soil is contaminated with Benzene. ISIS: Three leaded USTs, two closed in place and one removed. | Low Impact Located on the east side of Pacific Highway; a sufficient distance away from rail alignment. Contaminated groundwater is not suspected. |

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|---------|---|---|---|---|
| 116 | 11.3_85 / E | Ponders Auto Parts Inc. 12828 Pacific Hwy Southwest Lakewood | Site ID# 1289 Listings: UST, State Cleanup Site , Haz Waste Generator (x2) Release: Soil is contaminated with petroleum and metals, and is suspected to be contaminated with Halogenated organics. Groundwater contamination is suspected for all three chemicals. | Moderate Impact Suspected groundwater contamination is located immediately adjacent to rail alignment. Minimal soil disturbance (2-5 feet) is planned. Construction work does not anticipate encountering groundwater. |
| 119 | 11.2_79 / E | Lakewood Lumber Co Inc 12710 Pacific Hwy Southwest Lakewood | Site ID# 55349739 Listing: UST Release: No documented releases. | Low Impact Located immediately east of the tracks. No soil disturbance below two feet bgs. |
| 81 | 11.8-12.8 / E <i>Estimated</i> | American Lake Gardens USAF MAFB American Lake GDN 62ABG DEEV McChord AFB 6411 146 th Street Southwest Tacoma | EPA Superfund, EPA ID# WAD980833065, Ecology ID# 239 Listing: SUPERFUND Release: Groundwater, surface water, soil and air are confirmed to be contaminated with halogenated organics and non-halogenated solvents. Site unit status is reported as cleanup complete with active ongoing monitoring work, along with an environmental covenant. EPA web page : The site occupies approximately ½ square mile west of McChord Air Force Base (AFB) and north of the Fort Lewis Military Reservation. Contamination is believed to have come from Area D of McChord AFB, which contains former landfills now covered by the base's Whispering Pines Golf course. | Moderate Impact Near alignment on the east from approximately Rail MP 11.8 to Rail MP 12.8 (essentially the span of Tacoma Country Golf club). The western edge of the Superfund site is bounded by I-5. The VOC contaminated groundwater plume is <u>not</u> shown to extend under I-5 or the rail alignment. Construction work entails minimal soil disturbance ¹ along this stretch. Although no contact with contamination is expected, the site is ranked as a Moderate Impact because the rail alignment is immediately adjacent to a Superfund Site. If design plans change, special consideration must be made to ensure the Project does not intercept, alter or affect existing groundwater pathways (i.e., infiltration). Superfund sites require special precaution with respect to avoiding long-term cleanup liability. Construction work proven to spread or contribute to existing contamination may identify the agency as a liable party for cleanup. |
| 82 | 13.0–15.4 / E | Fort Lewis Logistics Center US Army Fort Lewis I-5 Corridor AKA: Evergreen Infiltration Range Fort Lewis | EPA Superfund, EPA ID# WA7210090067, Ecology ID# 38394393 Listing: SUPERFUND Release: Soil is contaminated with metals and petroleum, and is suspected to have organic conventional contaminants. Ecology's web page says groundwater is suspected to be contaminated with the same, however USEPA web page documents groundwater contamination is confirmed. Ecology ranking of 2 (with 1 has the highest priority and 5 being the lowest). EPA web page : Contamination primarily originated from several Fort Lewis landfills. TCE contaminated groundwater extends below the rail alignment. | High Impact Contaminated groundwater extends under the rail alignment. The TCE groundwater plumes are located along the rail alignment from Rail MP 13.0 thru Rail MP 15.4 (<i>from approximately Lake Street to 41st Division, east of the rail alignment</i>). Construction extending below 2-3 feet below the surface may occur at approximately Rail MP 13.0 and in sporadic areas from Rail MP 14.0 to Rail MP 14.5 and Rail MP 15.1 to Rail MP 15.5. However, construction work is not expected to encounter groundwater. Although no contact with contamination is |

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|---------------------|---|--|--|--|
| | | | | expected, the site is ranked as a High Impact because the rail alignment is adjacent to a Superfund Site. If design plans change, special consideration must be made to ensure the Project does not intercept, alter or affect existing groundwater pathways (i.e., infiltration). Superfund sites require special precaution with respect to avoiding long-term cleanup liability. Construction work proven to spread or contribute to existing contamination may identify WSDOT as a liable party for cleanup. |
| 124 | 13.1_180 / W | Tillicum Automotive 14612 Union Avenue Southwest Lakewood | Site ID# 18191 Listings: SCS , HazWaste Generator (x2), RSVP Release: Soils is contaminated with metals. Soil and groundwater is suspected to be contaminated with metals, halogenated organics, halogenated solvents and petroleum. | Low Impact Located on the west side of Union Avenue Southwest; a sufficient distance away from rail alignment. Contaminated groundwater is suspected, however minimal ground disturbance. ¹ |
| 125/ 132/ 133 | 13.6_208 / W | Gibbon and Sons Co Inc 15408 Union Avenue Southwest Tillicum Moose's Tillicum Auto Tech 15408 Union Avenue Southwest Lakewood Tillicum Chevron 15408 Union Avenue Southwest Lakewood | Site ID# 84835238 Listing: Haz Waste Generator (x2) Release: No documented releases. Site ID# 22655 Listing: Local Source Control Release: No documented releases. Site ID# 57297299 Listings: UST; LUST; VCP Release: Petroleum contaminated soil and groundwater. | Low Impact Located on the west side of Union Avenue Southwest; a sufficient distance away from rail alignment. Contaminated groundwater exists, however little to no ground disturbance. ¹ |
| 128 | 13.9_222 / E | Camp Murray Bldg 26 No Address Fort Lewis | Site ID# 13890 Listing: UST (A) Release: No documented releases. | Low Impact Located on the east side of I-5, a sufficient distance away from the rail alignment. |
| 129 | 13.5 / E | US Army Fort Lewis Multi Site No Address: Fort Lewis | Site ID# 229 Listing: SCS Release: Soil is contaminated with "Base/Neutral/Acid Organics" and Dioxin/Dibenzofuran Compounds. Soil was remediated for BCBs and is suspected to also be contaminated with pesticides. Groundwater is contaminated with "Conventional Inorganic Contaminants and Halogenated Organics and Radioactive wastes. Groundwater is suspected of PCBs. Ecology has not ranked the site. And received a No Further Action in May of 1994, although the site status still shows "awaiting cleanup." | Low Impact Located east of I-5, near the intersection of Perry Avenue and Tacoma Drive. Although groundwater is contaminated, construction requires little to no excavation in the area west of this site. |
| 131 | 13.7_210 / W | Tillicum Mobile 8202 Berkeley Avenue Southwest Lakewood | Site ID# 15568657 Listings: UST, LUST Release: Petroleum contaminated groundwater. | Low Impact Located on the west side of Militia Drive/Union Avenue Southwest; a sufficient distance away from rail alignment. Contaminated groundwater exists, however little to no ground disturbance. ¹ |

| Map ID# | Rail MP (approx.) / East or West side of tracks | Site Name / Address | Ecology Facility Site ID#, Database Listing and Release Information | Risk Rank / Notes |
|--|---|--|---|---|
| 135 | 14.3 / W | WA Army National Guard Camp Murray AKA: WA NG Org Maint Shop 1 Camp Murray Army National Guard | Site ID#: 91742929 Listings: Enforcement Final, HazWaste Generator (x3) Release: No documented releases. | Low Impact Located on the west side of 41 st Division Way; a sufficient distance away from the rail alignment. Ecology did not suspect contamination. |
| 136 | 14.3_244 / W | Camp Murray Swale Camp Murray Bldg No 36 | Site ID# 57555918 Listings: VCP Release: Soil is contaminated petroleum and metals. Groundwater is contaminated with Polynuclear Aromatic Hydrocarbons, and is suspected to be contaminated with petroleum and metals. The site has an Environmental Covenant. | Moderate Impact Located on west side of 41 st Division Way, in between the roads "Field Artillery Drive" and "Air Defense Lane." Groundwater is contaminated. Depth and directional groundwater flow is uncertain. Construction plans to excavate below five feet between Rail MP 24.3_244 and Rail MP 14.5_252. |
| 138 | 14.4_249 / W | AT&T Wireless Camp Murray Bldg 57 SEC | Site ID# 9754975 Listing: HazWaste Generator Release: No documented releases. | Low Impact Immediately adjacent to rail alignment, however no contamination is expected. |
| 139 | 17.1 / E | JBLM Tank Group 1 Fort Lewis | Site ID# 2983 Listing: SCS Release: Unable to obtain site specific details from Ecology's ISIS and CSCSL databases. | Low Impact Located east of I-5, near intersection of Lewis Drive and West Way; a sufficient distance away from the rail alignment. If groundwater contamination exists, construction down gradient of this site involves minimal ground disturbance (2-5 feet bgs). |
| 146 | 18.1 / E | WA DOT South DuPont Interchange I-5 MP 118 | Site ID# 91112255 Listing: Haz Waste Gen Release: No documented releases. | Low Impact Located along rail alignment to the east. Road construction does not pose a significant hazardous material risk. |
| <p>¹ As shown in the Project Footprint, soil disturbance generally occurs between Rail MP 10.4 and Rail MP 21.5. Excavation is primarily between 2-5 feet bgs, and occasionally beyond five feet in areas along cut lines on side slopes. No groundwater is expected to be encountered during construction activities along this alignment.</p> | | | | |

Chapter 4 – Affected Environment

Examining the historic land use and physical setting provides a general context for describing the hazardous materials characteristics of the study area and potential migration pathways. Included in this section is a summary of existing conditions with respect to the historic and current land use, physical setting, and site specific environmental concerns.

Historical Overview

This section was extracted from the 2007 *Point Defiance Bypass Project Hazardous Materials Technical Memorandum*. Historical land use provides a general context for gauging the likelihood of contamination to be present within the project corridor.

Northern Pacific Railway began operations along its Lakeview Subdivision (Tacoma south towards Olympia) in 1873. The primary purpose of the railroad was to transport people and goods through the Western Washington corridor.

Prior to 1940, development was sparse outside of Tacoma city limits other than the military bases. Fort Lewis was established in 1917. In Tacoma, commercial development was limited to main arterials, primarily Tacoma Way, with some industrial use north of the study area. In the 1950s and 1960s, commercial businesses began developing land in Lakewood along main arterials. Residential developments filled in between the main arterials in both Tacoma and Lakewood. Industrial and commercial development increased along Tacoma Way. Between 1960 and 1975, vacant land continued to be developed, largely for residences.

Current land use includes industrial and commercial zoning along much of the corridor, especially from Lakewood northward to Tacoma. Residential areas are located off the corridor in Lakewood, Tillicum, and DuPont. The southern portion of the study area, from Rail MP 18.4 to Rail MP 21.5 remains largely undeveloped.

Physical Environment

The physical setting of the study area influences the fate and transport of hazardous materials released to the environment. In general, the physical

environment controls the behavior and movement of contamination through environmental media. This includes:

- Mobility of chemicals,
- Rate of degradation for chemicals in the environment, and
- Preferred pathways for contaminants to transport away from the point of release.

Freighthouse Square Area²²

The Freighthouse Square building spans between East “G” Street (Rail MP 1.8 to East “D” Street (Rail MP 2). North of Freighthouse Square, from TR Junction (Rail MP 1.0) to East “G” Street (Rail MP 1.8), the topography along the rail line is a low relief alluvial plain that is south of the Puyallup River Valley. Going west from East “G” Street, the topography begins to rise upward from the Puyallup River Valley to a broad upland plateau. The evaluation is approximately 10-30 feet above sea level.

Surficial geology at Freighthouse Square generally consists of ice contact deposits, Vashon glacial till and pre-Fraser deposits. Puyallup fine sandy loam soil is likely present in the area along the Puyallup River to about East “G” Street (Rail MP 1.8). Puyallup fine sandy loam is derived from sandy alluvium and infiltration is considered moderate to rapid. West of about East “G” Street to the upland area west of South Chandler Street (Rail MP 3.4), the soils are likely of the Alderwood and Kitsap Series. Alderwood gravelly sandy loam is derived from glacial till and permeability is very slow.

Freighthouse Square may sit on fill material. Fill placed during construction and building activities can have widely varying properties, depending on the material used as fill and whether the fill was placed in an engineered or non-engineered fashion.

The immediate vicinity surrounding Freighthouse Square does not have surface water, other than the runoff captured in the stormwater system. Groundwater is controlled primarily by topography and flows generally to the north, northwest towards the Puyallup River. Groundwater is generally shallow (reported at 3-4.5 feet below the surface) and is highly susceptible to contamination.

²² Information in the section was provided by the Soils and Geology Discipline Report (WSDOT 2011g), the Water Resources Discipline Report (WSDOT 2011i), and Ecology State Cleanup Site File for Smurfit Stone Container (Site #17 located at 817 East 27th Street, Tacoma WA).

Corridor Soil Disturbance Areas²³

Most of the study area is situated on a broad upland plateau with elevations ranging from 200-400 feet above sea level. The western side of the upland descends to the Puget Sound along coastal bluffs. The northeast and southwest sides descend to the lowland floodplains of the Nisqually and Puyallup Rivers. The Cascade foothills bound the east side of the plateau. Streams that cross the study area flow in a general east to west direction.

The topography and near-surface geology has a pattern of north-trending ridges and swales with large topographic channels that trend westerly. This pattern was created by the last regional glaciation called the Vashon glaciation. Glacial ice from this event crossed the upland plateau and left deposits of sand and gravels during its recession. This event, along with six or more previous glaciations in the last 15,000 years, deposited a sequence of sands and gravels separated by finer grained silts and clays approximately 1,000-1,700 feet below the ground surface in the study area (Jones, 1996).

The surficial deposit for the majority of the study area is covered by Steilacoom Gravel. The gravel is commonly 20 feet thick with locally greater thicknesses. This gravel is relatively uniform pebble gravel with interstitial sand. The lack of fine-grained particles makes this deposit highly permeable. Precipitation primarily infiltrates directly into the ground instead of flowing overland.

Groundwater migrates laterally through the groundwater system. The groundwater system comprises a series of aquifers and aquitards within the subsurface. The groundwater table in the area is shallow, on the order of 10-40 feet below the ground surface. The water table commonly intersects depressions in the upland surface resulting in standing bodies of water, such as American Lake. Because of the rapid infiltration and shallow groundwater system, the study area is highly susceptible to contamination.

Project Environmental Concerns

This section summarizes site specific environmental concerns for properties identified with known or potential contamination that are

²³ *The section was extracted from the 2007 Point Defiance Bypass Project Hazardous Materials Technical Memorandum. The description is consistent with the recent Soils and Geology Discipline Report (WSDOT 2011g) and the Water Resources Discipline Report (WSDOT 2011i) which states, "...highly permeable deposits at or near the ground surface are significant aquifer recharge areas and are highly susceptible to environmental contamination of groundwater." and "Because of rapid infiltration and the shallow groundwater system, the groundwater in the study area is susceptible to contamination" respectively.*

considered to have a Moderate or High Impact risk to the Project. A validated list of all sites, complete with addresses, regulatory listing and documented releases, and site specific notes with risk ranking rational, is provided in Exhibit and Exhibit , Validated Sites of Concern for the Freighthouse Square area and Soil Disturbance areas, respectively.

Freighthouse Square Area

Eleven sites were identified to have either a Moderate or High potential to impact the Freighthouse Square area. Out of the 11 sites, four were identified to have a potential High Impact to the Project which is described in further detail in the subsection below for Potential High Impact Sites.

The following seven sites, ranked as a potential Moderate Impact, are identified because they either pose some potential risk for cleanup liability or construction work may encounter contamination. Site specific information is provided in Exhibit , Validated Sites of Concern – Freighthouse Square area.

- F & E Investments (Site #27),
- Spring Air Northwest (Site #28),
- Precision Pattern Inc. (Site #31),
- Don Engle Distributing (Site #33),
- Tacoma Dome Station (Site #44),
- Commencement Bay – Nearshore Tidelands – Tacoma Tar Pits, (Sites #46 / #50) and
- Manna Pro Co. (Site #49).

Corridor Soil Disturbance Areas

Eight sites were identified to have either a Moderate or High potential to impact the Project where excavation work is planned to go below two feet of the existing ground surface. Out of the eight sites, four were identified to have a potential High Impact to the Project which is described in further detail in the subsection below for Potential High Impact Sites.

The following four sites, ranked as a potential Moderate Impact, are identified because they either pose a potential risk for cleanup liability or contamination may be encountered during construction. Site specific information is provided in Exhibit , Validated Sites of Concern – Soil Disturbance Areas.

- 7 Eleven (Sites #110/#78),
- Ponders Auto Parts, Inc. (Site #116),
- Camp Murry Swale (Site #136), and
- American Lake Gardens Superfund Site (Site #81).

Potential High Impact Sites

Known or potential contaminated sites were evaluated to identify sites that may pose a high risk to the Project. The sites of highest concern include documented contaminated sites and sites that have a potential for a release that is located immediately adjacent to or within the construction area where groundwater is contaminated and subsurface construction work is probable.

Sites with known releases to groundwater are a high concern because construction work may alter groundwater pathways and potentially spread contamination, and if dewatering is required, special handling and disposal costs would affect the Project. Acquisition of property that has known or potential contamination are also of high concern as they may become a long-term cleanup liability issue. Sites with contaminated soil only, are typically of less concern, unless the site is located directly within the construction footprint.

The sites of highest concern identified within or immediately adjacent to the Project limits are summarized in the following subsections, followed by a description of two other major sites of note.

Freighthouse Square (Site #2)

Freighthouse Square has contamination above MTCA Method A cleanup levels and is subject to an environmental Restrictive Covenant (see Attachment D). The Project would require excavation or some amount of ground disturbance which would require prior coordination with Ecology to ensure any ground disturbance work is in compliance with established restrictions.

Industrial Parts Frictions I (Site #26 / PP3)

This property may be acquired for parking and currently is not listed as a known or suspected contaminated site. However, the site is located in a historically heavy commercial and industrial area and the business has handled or generated hazardous materials. Past and current business operations on or adjacent to the property may have contaminated the site.

Airspares (Site #53 / PP1)

This property may be acquired for parking and currently is not listed as a known or suspected contaminated site. However, the site is located in a historically heavy commercial and industrial area and the business has handled or generated hazardous materials. Past and current business operations on or adjacent to the property may have contaminated the site.

Stone Property Transit (Site #58 / PP2)

This property may be acquired for parking and soil is known to be contaminated with arsenic and other metals, along with petroleum products and polynuclear aromatics. Solvents are also in the soil; however the concentrations are reportedly below Ecology's current cleanup levels. These substances are suspected to also be in the groundwater, which is shallow in this area. Ecology used a ranking system to evaluate the type and level of risk the site poses to human health and the environment. Ecology ranked the site as a 3, where a rank of 1 represents a high priority and a 5 ranking represents a low priority.

Sound Transit Rail Property (Site #83)

Twenty one miles of the Project rail alignment may contain shallow soil contamination from creosote-treated railroad ties, use of herbicides for vegetation control, fuel, solvents and other hazardous materials spills through the industrial districts of Tacoma and Lakewood, and heavy metal contamination on surface soils from the ASARCO smelter in Ruston, WA (see Tacoma Smelter Plume below for more details).²⁴ Existing rail sections along the project corridor are underlain by ballast material which may include slag from the ASARCO smelter that historically operated in Ruston, located north of Tacoma. Slag from this facility has been determined to contain high concentrations of numerous heavy metals, including arsenic.²⁵ Contaminants of concern associated with slag include arsenic, cadmium, copper, and lead.

Tacoma Smelter Plume (Site #84)

The project corridor could contain contaminated surface soils caused by the historical operation of the ASARCO Smelter Plant located north of Tacoma. Because the surface soils within the railroad right-of-way may not have been significantly disturbed since railroad construction in 1873, lead and arsenic concentrations in soils within the entire study area may have the potential to be above the MTCA Method A cleanup.²⁶

USEPA Lakewood Superfund Site (Site #80)

The Lakewood Superfund site (aka Ponder's Corner or Plaza Cleaners) has contaminated groundwater beneath the rail right-of-way. The groundwater plume extends approximately between Clover Creek Drive Southwest and New York Avenue Southwest, which is between Rail MP 10.9 and Rail MP 11.2. The groundwater table is approximately 30-40 feet below the surface, so contact with contaminated groundwater is not expected.²⁷ Most of the soil disturbance in this area is between 2-5 feet

²⁴ WSDOT 2007a

²⁵ FTA 2002

²⁶ WSDOT 2007a

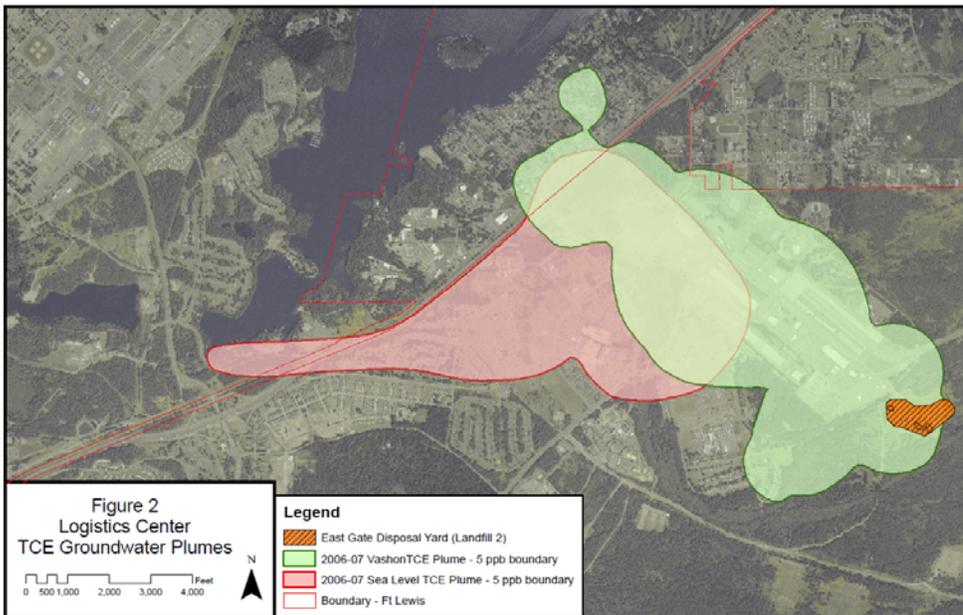
²⁷ WSDOT 2007a

below the ground surface (bgs), with some excavation going beyond 5 feet bgs near Rail MP 11.1.

Fort Lewis Logistics Center Superfund Site (Site #82)

The Superfund site has trichloroethylene (TCE) contaminated groundwater that extends under the rail alignment (see Exhibit). The TCE groundwater plumes are located along the rail alignment from Rail MP 13.0 thru Rail MP 15.4 (from approximately Lake Street to 41st Division Drive, east of the rail alignment). The source of the contamination comes from the US Army's former landfill called the East Gate Disposal Yard. Although the extraction/treatment system is successfully removing chlorinated organics from groundwater, tests show increased contaminant levels in groundwater near the source, and the contaminant plume may be expanding in some areas.²⁸ Construction extending 2-3 feet below the surface may occur at approximately Rail MP 13.0 and in sporadic areas from Rail MP 14.0 to Rail MP 14.5, and Rail MP 15.1 to Rail MP 15.5. However, construction work is not expected to reach groundwater depths.

Exhibit . Fort Lewis Logistic Center TCE Groundwater Plumes



Major Site of Note: Commencement Bay, Nearshore/Tideflats Superfund Site (Sites #46/#50)

The west end of the Project is located within the general boundary of the Commencement Bay, Nearshore/Tideflats Superfund site. This report ranked the Superfund site as a potentially Moderate Impact because the Project footprint does not intercept the boundaries of the Superfund site's

²⁸ EPA Third Five-Year Review Report, September 2007

four operable units (cleanup areas). However, this Superfund site is linked to the Project in three ways. First, Sites #46/#50 at 2200 East River Street, Tacoma, is the closest operable unit (Tacoma Tar Pits) to the Project, which is approximate 2,094 feet north of the rail alignment. Second, the former ASARCO smelter is the source of the slag that was generated from the copper smelting process that was either disposed of in Commencement Bay or used as crushed rock applications (i.e., driveways and roadbed material). Third, 95 years of airborne emissions from the ASARCO smelter facility contaminated surface soil with arsenic and lead. Slag and surface soil contaminates are mentioned above in the section for Sound Transit Railroad Property.

Major Site of Note: American Lake Gardens Superfund Site (Site #81)

This Superfund site is located adjacent to the rail alignment on the east side from approximately Rail MP 11.8 to Rail MP 12.8 (essentially the span of the Tacoma Country Golf Club on the west side). The western edge of the Superfund site is bound by I-5. The site has contaminated groundwater with volatile organic compounds (VOCs), including trichloroethylene (TCE) and dichloroethylene (DCE). Contamination is believed to have come from Area D of McChord AFB, which contains former landfills now covered by the base's Whispering Pines Golf course. This report ranked the Superfund site as a potential Moderate Impact because the contaminated groundwater plume does not extend under I-5 or the rail alignment and construction work entails minimal soil disturbance along this stretch.

Chapter 5 – Potential Project Effects

Chapter 4 of this report identified sites of concern that may pose a potential effect to the Project based on Project plans for acquisition and excavation. This chapter discusses how those sites may affect the environment, the construction project, and cleanup liability.

No Build Alternative

“No Build” means that the Project would not be built, and assumes that the tracks would remain in their current condition and have the same or similar train operation and usage as the present time. Evaluating a No Build Alternative establishes a benchmark to compare the potential hazardous materials effects between current conditions versus the activity of building the Project and the normal operational activities (maintenance and repair work) to support the completed Project.

The No Build Alternative would have no construction, thus no direct, indirect, or cumulative effects.

Build Alternative

Project Involvement Summary

Acquisition on the Project is limited to three proposed parking lot areas near Freighthouse Square. With the exception of the parking lots near Freighthouse Square, required earthwork along the entire rail alignment is constrained within existing railroad right-of-way. The majority of excavation work is limited to surface grading to resurface the existing track subgrade, preparing new surface for new track and power turn outs. Other excavation work that may go below 2-3 feet would include isolated areas for improved drainage features, new railroad control signal systems and relocating utilities. Attachment B illustrates areas of ground disturbance, showing where excavation occurs between 2-5 feet below the existing surface and areas where excavation may go below five feet. Existing ground surface could be disturbed by as much as eight feet in depth. The Project requires no in-water work, and does not expect to encounter groundwater during construction.

Construction elements of the Project include the following:

- At Freighthouse Square, modifications to the station would involve reconstructing a portion of the existing Freighthouse Square building, extending or rebuilding the existing commuter rail platform, modifying existing on-street parking and parking lots, installing new or upgrading existing utilities, and creating additional parking. Excavation would not exceed 2-5 feet below the existing surface.
- Between South 66th Street (Rail MP 6.9) to about 700 feet beyond the Lakewood Station (Rail MP 10.1), track ballast material would be added and new rail would be installed. Excavation would not exceed 2-3 feet below the existing surface.
- Between about 700 feet beyond the Lakewood Station (Rail MP 10.1) to Nisqually Junction (the southern terminus of the Project), the track section would be reconstructed. The reconstruction would involve clearing and grubbing the existing ground of vegetation, cutting into existing slopes, placing new fill for wider track embankments, excavating new drainage ditches, placing track sub-ballast and ballast material, and hauling away and disposing of excavated material. Excavation would exceed 2-3 feet in some locations, primarily cuts into existing slopes and at-grade crossings. Excavation would not exceed eight feet below the existing surface.
- Roadway upgrades would be implemented at Clover Creek Drive Southwest, North Thorne Lane Southwest, Berkeley Street Southwest, 41st Division Drive, and Barksdale Avenue. Excavation would not exceed 2-3 feet below the existing surface.
- At the two bridges crossing I-5 near Rail MP 20.0, additional construction along the rail line could potentially include extending the bridge abutment wing walls with retaining structures, which could require high cuts into existing slopes. Additional construction activities could include protecting the track from upslope debris and removal of existing loose fill. Excavation would not exceed eight feet below the existing surface.
- In the vicinity of the Mounts Road overpass (Rail MP 19.8), the track embankment slopes could potentially be re-graded and new retaining structures may be installed to support the track widening. Excavation would not exceed eight feet below the existing surface.

Potential Environmental Effects

Environmental effects are those that the Project causes to the environment or sensitive receptors. This section identifies the potential Project-specific construction, indirect, and cumulative effects.

Construction and Physical Effects

Construction effects are temporary in nature, and are resolved or mitigated by the end of the construction activity. Physical effects involve permanent changes to the landscape that remain long after construction ends. The presence of contaminated soil or groundwater could result in public health or environmental effects as a result of Project construction activities that result in the following:

- Releasing and spreading contaminated soil, sediment, or groundwater that is encountered during Project construction activities such as trenching, excavation, dewatering, and grading.
- Altering the flow direction and gradient of contaminated groundwater or generating contaminated water during dewatering.
- Creating preferential pathways for contamination to migrate by construction activities that change soil porosity, such as the installation or alteration of utility trenches and roadbeds.
- Accidental hazardous materials spills or releases from construction activities, equipment or materials may occur. Hazardous materials have the highest effect on waters of the state. They also have the potential to harm endangered species or their habitat or humans who are sensitive to chemicals such as children and the elderly. Contaminants in air borne particulates can migrate off-site in dust particles and may cause an exposure concern.

The Project does not pose a significant adverse effect. The Project has a limited amount of ground disturbance work within existing rail right-of-way. Earthwork is not expected to excavate to depths that reach groundwater, nor is any in-water work planned. There is a potential to encounter groundwater south of Rail MP 19.5;²⁹ however there are no identified hazardous material sites in this area. There is also a potential for utility work in the Freighthouse Square area to encounter shallow groundwater, where contaminated groundwater is known to exist. Due to the potential concern for surface soils to be contaminated from the ASARCO smelter plant operations, ground disturbance work may release contaminated dust particles to the surrounding populace. However, there are reasonable minimization measures that help avoid, control and manage these effects.

Operational Effects

Vehicle parking areas are a source of potential contaminants from oil and fuel dripping from parked vehicles that could enter stormwater or pervious surfaces and eventually reach groundwater. Unmanaged stormwater runoff from parking lots that may be located at the Stone Property Transit Site

²⁹ WSDOT 2007a

(Site #58) into areas of pervious surface could create a pathway for transporting existing contaminants in soil into groundwater.

During operation, possible fuel or lubricant dripping from train engines along the rail line and in the stations is expected. No Cascades engine maintenance activities or rail car maintenance (such as painting) are planned within the project corridor. Thus the only anticipated effect during operations is fuel or lubricant dripping from trains sitting at the Tacoma Freighthouse station. Amtrak Cascades trains do not carry hazardous material in bulk. Existing freight trains on the Point Defiance Bypass route may haul bulk materials, including hazardous items, per current customer demands. Freight trains would continue to transport hazardous materials along the Puget Sound route. Therefore there will be no increase in the transport of hazardous material through the study area.

Indirect Effects

The only potential indirect effect tied to the Project is that it may indirectly influence redevelopment near the relocated Amtrak Station at Freighthouse Square. The area surrounding Freighthouse Square is a historically heavy commercial and industrial area with several sites of concern (see Chapter 4 above). If redevelopment were to occur at any of the sites of concern, coordination with Ecology would be required prior to construction to ensure any ground disturbance work is in compliance with established restrictions and regulations. Construction activities associated with redevelopment near Freighthouse Square have the potential to encounter contaminated groundwater or release contaminated dust particles (due to the potential concern for surface soils to be contaminated from the ASARCO smelter plant operations) similar to the effects associated with the construction at Freighthouse Square. However, there are reasonable minimization measures that would avoid, control, and manage these potential effects. Cleanup activities associated with redevelopment would benefit the environment and community. Thus, the Project could have a beneficial indirect effect on hazardous materials in the study area if they are encountered and cleaned up.

Cumulative Effects

With implementation of the recommended minimization measures identified in Chapter 6, the Project would not result in the direct or indirect release of hazardous materials. Historically, industrial and commercial activities in the project corridor have resulted in the release of hazardous materials, but regulation and cleanup efforts (most often associated with property transfers) have reduced the potential for contamination from ongoing activities. Unanticipated accidental releases from any source may occur in the future. Any such release from the Project would be minimized. Because the Project is not expected to result in a discharge of

hazardous materials, it would not contribute to a cumulative environmental effect from hazardous materials releases.

Construction Effects

All encounters and releases of hazardous materials could delay construction and increase construction costs because of the complex laws governing the cleanup of contaminated media and the expense associated with the cleanup and disposal. The types of construction effects specific to the Project include:

- Contaminated Soil³⁰
- Creosote Treated Railroad Ties
- Rail Ballasts
- Spills
- Underground Storage Tanks
- Demolition
- Worker Safety and Public Health

Contaminated Soil

Construction delays and increased costs often result from unexpected encounters of contamination. There is a potential for unknown contamination that has not been documented or discovered. Delays are typically caused by segregating and containing contaminants, coordinating sample collection, waiting for laboratory results, identifying a permitted disposal facility, completing the disposal facility's waste profile sheet, and coordinating haul and disposal. Increased costs result from payments to the contractor during delay, payments to a qualified professional to obtain and analyze samples, payments to certified hazardous material equipment operators (Washington State Labor and Industries worker safety trained), laboratory charges, and expensive disposal fees. Construction (staging) activities may be affected depending upon the need to stockpile contaminated material or the need for additional equipment.

Surface soils (approximately the top 18 inches) that are known or suspected to be contaminated on the Project include the following hazardous substances:

- Heavy metal contamination related to Tacoma Smelter Plume, slag ballast material and treated railroad ties
- Polycyclic aromatic hydrocarbons (PAHs) from creosote treated railroad ties
- Petroleum hydrocarbons related to historic leaks or fuel spills
- Herbicides used for vegetation control

³⁰ Contaminated groundwater is not included here because the proposed Project does not anticipate excavating to groundwater depths.

Creosote Treated Railroad Ties

Wood treated with creosote, pentachlorophenol, or metals that can leach into the ground are considered potentially hazardous. The railroad ties are likely preserved with creosote. Creosote treated wood typically falls under the “other preservative treated wood” exemptions in the Dangerous Waste designation per WAC 173-303-071. Creosote treated wood must be disposed of or reused within 180 days following removal. Special disposal considerations must be made, as they must either go to a municipal solid waste Subtitle D landfill, burned for energy recovery in a permitted industrial furnace or boiler, or prudently reused for its intended structural purpose.

Rail Ballasts

Ballast material under existing rail sections along the project corridor may include slag from the ASARCO Smelter. Slag from this facility has been determined to contain high concentrations of numerous heavy metals, including arsenic.

If not slag material, some disposal facilities may consider all rail ballasts as potentially contaminated from an accumulation of historic spills over the past 95 years of operation or possibly from spilled chemicals from train accidents.

Similar to soil disposal, increased construction costs could result from segregating rail ballasts, coordinating and paying for sample collection (if required by the disposal facility or the local jurisdictional health department; although sampling ballasts is problematic), completing the disposal facility’s waste profile sheet, or the Tacoma Pierce County Health Department’s Waste Disposal Authorization form, and coordinating and paying for haul and disposal.

Spills

Construction delays and increased costs may result in the event of a spill and cleanup work of hazardous materials that are used or generated during construction. Construction vehicles and equipment typically use gasoline, diesel, motor oil, transmission fluid, radiator coolant, brake fluid, and hydraulic oil. Spills to water are an effect to the environment and the construction project. In addition to construction delays and cleanup costs, there are significant fines associated with spills. The fine for a spill to water can be from \$10,000-\$100,000 per day per violation, not to mention a subsequent Natural Resource Damage Assessment fine that calculates the damage to habitat that may be protected under the Endangered Species Act. There can be multiple fines in a single spill incident.

The Project is not at a high risk for serious spills, as the majority of the Project is located in commercial and industrial areas. The surface water bodies near the study area include: First Creek (near Rail MP 0.85), Tacoma Eastern Gulch (near Rail MP 7.65), Stream 1 (near Rail MP 7.65), Clover Creek (Rail MP 10.8), Stream 2 (Rail MP 12.85), Murray Creek (Rail MP 14) and Stream 3 (Rail MP 21.25).³¹ No in-water work is planned.

Underground Storage Tanks

Underground Storage Tanks (USTs) may be encountered during excavation activities, although encountering a UST during construction for the Project is unlikely due to the minimal amount of earthwork required. However, USTs pose a potential risk as they may leak over long periods of time without being detected. This can result in soil and groundwater contamination that can migrate in areas that are presumed clean.

USTs in residential areas are likely to contain heating oil, while tanks used in commercial/industrial fueling would typically contain automobile fuel and other petroleum products. USTs in automobile or machine repair businesses would typically contain petroleum, waste oil, and hydraulic and transmission fluids where the commonly associated contaminants include petroleum, heavy oil, metals, and polychlorinated biphenyls (PCBs). The costs to remove USTs and/or remediate contamination can affect project schedule and increase costs.

Demolition

Should the Project select proposed parking area PP1 or PP3, building demolition would be required. The Freighthouse Square terminal may also undergo some structural modifications and excavation work. Increased costs and delays may result when demolition requires special handling and disposal of certain equipment, materials or structures. Special demolition considerations can include:

- Asbestos Containing Materials (ACMs), which are likely to exist in buildings constructed prior to 1985. ACM poses risks to public and worker safety when disturbed for maintenance, renovation, and demolition of structures. If a survey is not completed prior to construction, the Project may be delayed.
- Lead Based Paint (LBP), which is likely to exist in structures built before 1978 and is typically found on steel structures. LBP poses risks to environmental health and worker safety when disturbed for maintenance, renovation, and demolition of structures. If an initial

³¹ WSDOT 2012

site assessment and/or testing³² is not completed prior to construction, the Project may be delayed.

- Above ground fuel storage tanks (ASTs) and USTs and associated piping, which would require removal and possibly remediation of associated contaminated media. See the UST section above for additional details.
- Universal Waste³³ as defined in the Dangerous Waste regulations (WAC 173-303), such as batteries, lamps, thermostats, and mercury-containing equipment, which would require special handling and disposal.
- Creosote or Arsenic (aka Chromated Copper Arsenate) treated wood,³⁴ such as railroad ties, utility poles and piling, which would require special handling and disposal.
- Polychlorinated biphenyls (PCB) containing equipment³⁵ in above-ground utilities, such as transformers, which requires special handling and disposal.
- Well decommissioning, if present, would require removal in accordance with Ecology regulations. If it is a monitoring well, the Project may have to either relocate the well or leave it in place and make design changes to accommodate the liable party who is responsible for ongoing monitoring and cleanup of groundwater contamination.

Worker Safety and Public Health

Construction delays and increased costs may result when the contractor is not aware of site-specific circumstances that would warrant special employee safety training, certification and/or preparation of site-specific Worker Health and Safety Plans. Demolition work may also release airborne contaminants associated with ACM, LBP, or bird guano which is known to cause histoplasmosis (an infectious disease caused by inhaling spores of a fungus found in bird excrement). Exposing construction workers and the public to hazardous materials may result during excavation and management of contaminated media, such as, but not limited to, surface soil contamination and slag material from the ASARCO smelter, creosote treated railroad ties, and historic spills.

Cleanup Liability

WSDOT can inherit cleanup liability when:

³² Information on lead in demolition waste can be found at <http://www.ecy.wa.gov/programs/hwtr/dangermat/samplingDemoDebris.html>.

³³ Information on Universal Waste can be found at: http://www.ecy.wa.gov/programs/hwtr/dangermat/universal_waste.html

³⁴ Information on Treated Wood Waste can be found at: http://www.ecy.wa.gov/programs/hwtr/dangermat/wood_waste.html

³⁵ Information on PCB Waste can be found at: <http://www.ecy.wa.gov/programs/hwtr/demodebris/pages2/pcbsummary.html>

1. Acquiring a contaminated site,
2. Construction activities spread contamination or cause it to become worse, or
3. Final project construction prevents or obstructs a potentially liable party from conducting remedial activities.

RCW 70.105D identifies persons liable for a facility/property as:

1. The current or past facility owner/operator;
2. Anyone who arranged for disposal/treatment of hazardous substances for disposal/treatment at the site, unless it could legally receive the materials at the time of transport; or
3. Anyone who sells a hazardous substance with written instructions for its use, where abiding by the instructions resulted in contamination.

In situations where there is more than one liable party, each party is jointly and severally liable for costs associated with cleanup of a site and costs to repair damages to natural resources.

Cleanup liability can become an expensive immediate or long-term cost. As a property owner, WSDOT would be liable for the cleanup of on-site contaminated soil and groundwater. Liability issues for sites with contamination can also extend beyond the property boundaries if contamination migrated off-site through soils, groundwater or other preferential pathways (i.e., utility lines). In addition, WSDOT would be responsible for the removal of any stored or abandoned hazardous materials remaining on-site at the time of acquisition. WSDOT would incur the costs for characterization, cleanup, disposal, and potential long-term monitoring.

WSDOT generally would not incur liability for groundwater contamination that has migrated onto the Project footprint, as long as WSDOT does not acquire the source of contamination. Any contaminated groundwater within the Project footprint may affect construction activities, should dewatering be required.

Project Acquisition Liability

The Project may acquire property for parking near Freighthouse Square in Tacoma (see Attachment B,³⁶ Sheets 3 and 4, for the location of the three properties that are being considered for proposed parking). These

³⁶ Attachment B is based on current design and acquisition plans and is subject to change based on future Project plans. If property acquisitions are added to the proposed Project, WSDOT's HazMat Program can provide information specific to the risk for encountering contamination and potential liability issues relevant to the individual parcels.

proposed parking areas are located in a historically heavy commercial and industrial area with businesses that have handled or generated hazardous materials. Past and current business operations on or adjacent to the property may have a strong potential to have contaminated these sites. Any acquisition in a historically heavy commercial and industrial area should be considered a high risk with respect to inheriting cleanup liability. Conducting due diligence (i.e., sampling), property negotiations, and possibly establishing a contractual indemnification clause or court consent decree to limit liability prior to acquisition may affect Project schedule or budget. Following is a summary of findings for each proposed parking area.

Proposed Parking #1 (PP1)

Site PP1 is located at 415 East 25th Street. This property is listed with Ecology as a hazardous waste generator operated by Airspares Inc. (Site #53). The site is currently not listed as a known or suspected contaminated site. The property (County Parcel 2075210034) is 0.52 acre and is currently owned by Pierce Transit. [Pierce County Assess web page](#)³⁷ indicates that the low quality 13,960 square foot metal frame building was built in 1992, and has added on a loading dock with timber piers and a heavy wood floor. Should the property be acquired for a parking lot, demolition effects must be considered (details previously provided in the Construction Effects section).

Proposed Parking #2 (PP2)

Site PP2 is located at the southwest quadrant of East 25th Street and East "C" Street (directly west of Freighthouse Square). The 0.53 acre property (County Parcel 2075200011) is currently a paved parking lot. This property is listed with Ecology as the Stone Property Transit Site (Site #58), which is participating in the Voluntary Cleanup Program to remediate contamination. The soil is contaminated with arsenic and other metals, along with petroleum products and polynuclear aromatics. Solvents concentrations in the soil are reportedly below Ecology's current cleanup levels. These substances are also suspected to be in the groundwater, which is shallow in this area. Ecology used a ranking system to evaluate the type and level of risk the site poses to human health and the environment. Ecology ranked the site as a 3, where a rank of 1 represents a high priority and a 5 ranking represents a low priority. Should the property be acquired, minimization measures to minimize cleanup liability must be considered (see details provided below in Chapter 6).

³⁷ <http://epip.co.pierce.wa.us/CFApps/atr/ePIP/search.cfm>

Proposed Parking #3 (PP3)

Site PP3 is located at 409 East 26th Street. This property is listed with Ecology as a hazardous waste generator operated by Industrial Parts Frictions I (Site #26). The site is currently not listed as a known or suspected contaminated site. The County Assessor map did not show a parcel number for the 409 East 26th Street address; however a record indicated that the tax parcel account for this address is inactive with back taxes owed. The County Assessor map shows that the proposed parking area covers three parcels owned by two property owners. The first 0.15 acre property (County Parcel 2076210010) is located along East “D” Street and has an address as 401 East 26th Street. The property is owned by Jezek Lawrence, and Hewitt Cabinets is listed as the operating business. The property has a building constructed in 1918 that is 8,188 square feet. Some wood frame additions were built in 1970 and 1976. The other 0.37 acre property is divided into two parcels (County Parcels 2076210020 and 2076210030) that have an address of 411 East 26th Street. The property is owned by Tacoma Old School Partners, LLC, and Western Fleet Supply is listed as the operating business. The property has one 6,666 square foot storage warehouse building that was constructed in 1969 and an asphalt parking lot. Should the property be acquired for a parking lot, demolition effects must be considered (details previously provided in the Construction Effects section).

Other Potential Project Liability

This section addresses potential liability concerns related to Freighthouse Square and the Superfund sites identified near the Project footprint. As mentioned above, WSDOT, as a generator or operator (as defined in CERCLA, 42 USC 9601-9675 and RCW 70.105D.020), can inherit cleanup liability if construction activities spread or cause contamination to become worse, or if the Project construction prevents or obstructs a potentially liable party (PLP) from conducting remedial activities.

Freighthouse Square is subject to an Environmental Restrictive Covenant, as previously described in the Affected Environment Section, and is included in Attachment D. The covenant places institutional controls to limit or prohibit activities that may interfere with the integrity of a remedial action or result in exposure to or migration of hazardous substances at the site. Prior coordination with Ecology must be made, and precautions must be taken during construction to ensure compliance with established restrictions.

The same concept applies to Superfund sites governed under the federal CERCLA regulation. WSDOT have the duty to manage any hazardous materials with due care in order to avoid being liable as an operator or generator. Construction work must not contribute to existing

contamination, interfere with remedial actions, or increase health risks in the vicinity of the Superfund site. Since excavation work at the Project does not anticipate excavating at depths that could potentially reach groundwater, the liability risks are low with respect to the two Superfund sites that have contaminated groundwater plumes extending under the rail alignment.

Regulations

Hazardous materials identification and management are governed by numerous state and federal laws, regulations, guidance documents and policies. The investigation, handling, storage, disposal, and treatment of hazardous materials must be conducted in accordance with applicable local, state and federal regulations, which are presented in Attachment E.

Chapter 6 – Recommended Minimization Measures

The environmental, construction, and acquisition effects related to the Project can be avoided or reduced by implementing the minimization measures discussed in this section. These minimization measures can be implemented during different stages of Project development and construction. There are no effects that cannot be reasonably minimized.

No Build Alternative

No minimization is proposed under the No Build Alternative since there are no effects.

Build Alternative

There are no effects that cannot be minimized by implementing Best Management Practices (BMPs) in the Construction Plan. Although there are no effects, some manageable effects may occur as identified in Chapter 5. There are standard minimization measures that help avoid, control and manage these potential effects. Effects are minimized when the type and extent of known or suspected contaminated sites that may be affected are identified prior to construction, and then implementing the appropriate control and/or cleanup measures. The development of site-specific hazardous material investigations, project-specific hazardous material management plans, Stormwater Site Pollution Prevention Plans (SWPPP), Temporary Erosion and Sedimentation Control Plans (TESC), Spill Prevention, Control and Countermeasure (SPCC) plans, design plans and contract provisions can provide various procedures and Best Management Practices (BMPs) to prevent or minimize environmental risks.

Site-Specific Hazardous Materials Investigations

Hazardous materials investigations conducted prior to acquisition, such as a Phase I or Phase II Environmental Site Assessment, can identify the type and extent of contamination that may be present on a property. If construction plans require a large amount of excavation in known or suspected contaminated site, a hazardous materials investigation can identify an estimated quantity of contamination and provide recommendations on how to minimize potential effects and cost

effectively manage and dispose of contaminated material generated during construction of the Project.

Project-Specific Hazardous Material Management Plan

Management plans can be developed when significant amounts of known contaminated soil, groundwater, and sediment require excavation or dewatering. The purpose of the plan is to protect construction workers and the public from exposure to hazardous materials, to minimize releases of hazardous materials to the environment, to avoid construction delays, and to minimize cleanup costs and liability. Management plans establish specific handling and disposal procedures and chains of responsibility to effectively manage contaminated soil and groundwater as it is encountered in order to minimize schedule delays and excessive costs. A comprehensive management plan could include the following:

- Notification requirements and chains of responsibility
- Management procedures for contaminated media and containers
- Requirements for stockpiling and containment
- Restrictions for storage of contaminated media
- Monitoring requirements
- Transport requirements
- Options and requirements for treatment and disposal

When possible, a contaminated media contingency plan could “pre-designate” the handling of Project-related waste by identifying waste to be generated, characterizing the waste to determine disposal options, and obtaining advance approval for the disposal of waste at specified facilities.

Stormwater Site Pollution Prevention Plans and Temporary Erosion and Sedimentation Control Plans

The SWPPP is a NPDES General Construction Permit requirement. A SWPPP can also be a contract requirement if the Project does not qualify for the NPDES General Construction Permit. The SWPPP consists of the TESC Plan and the SPCC Plan. It includes site-specific information on drainage, topography, ground cover, rainfall records, existing encumbrances, and water table elevation measures. This information is necessary for proactive erosion control planning and to prevent discharge of pollutants contained in stormwater to water bodies during construction. The TESC Plan addresses stormwater diversion, use of stormwater conveyance and applies appropriate construction BMPs at construction sites, such as covering hazardous waste stockpiles to control erosion of contaminated soils and prevent potential effects to surface water or groundwater quality. The TESC Plan can include provisions for

implementing BMPs to protect groundwater and public drinking water, and measures to protect water and sewer lines. A construction water quality monitoring plan may also be included in the SWPPP.

Spill Prevention, Control and Countermeasure

A SPCC Plan is designed to minimize effects on soil, surface water, and groundwater in the event of a spill of hazardous substances during construction. Contractors are required to provide a SPCC Plan before beginning work. The SPCC Plan addresses spill prevention and containment, chain of responsibility, spill response procedures, spill material and equipment, and reporting requirements.

Design Plans

Alternative construction design or techniques can be used to avoid contaminated areas or minimize the quantity of material generated. For example, different footing designs can lessen the area and depth of excavation to minimize the quantity of wasted soil generated or avoid encountering groundwater and prevent or limit the volume of dewatering. The design and maintenance of stormwater facilities will also minimize the potential for contamination of soils and groundwater from stormwater runoff during operations.

Specifications, Plans and Provisions

Project contract specifications, design plans and provisions can inform the contractor of known or potential contaminants and the investigative reports that are available for the contractor's review. Once informed, the contractor is responsible for safely and responsibly managing contamination in accordance with all federal, state, and local laws. Provisions such as a General Special Provision (GSP) or a Special Provision (SP) can be added to the construction contract when critical site-specific circumstances warrant the need for special measures that can be contractually enforced. Project contract documents can include specific requirements related to containment, removal, and disposal. Provisions can also establish certification requirements of personnel, notification procedures, and documentation requirements.

Minimizing Construction Effects

Hazardous materials can increase project costs and create schedule delays. Project contract documents should require the contractor to prevent spreading or contributing to existing contamination and appropriately dispose of wasted material in a manner consistent with federal, state and local regulations. Many of the standard minimization measures that are used to minimize environmental effects (described above) also help

manage construction effects (i.e., investigations and pre-construction planning work). The Project could encounter hazardous materials during the following potential construction activities:

- Cutting into existing slopes to allow for track structure widening,
- Excavating ditches, culverts, and utility trenching,
- Removing, hauling and disposing of material, and
- Demolishing structures for parking.

In addition to the standard minimization measures described above, the following subsections discuss minimization measures to address media specific concerns that relate to the Project, such as:

- Contaminated Soil,³⁸
- Creosote Treated Railroad Crossties,
- Rail Ballasts,
- Underground Storage Tanks,
- Demolition, and
- Worker Safety and Public Health.

Contaminated Soil

Prior to construction, general soil management procedures can be established with respect to dust suppression, soil screening, stockpiling, sampling, transportation and disposal procedures.

To minimize surface soil contamination associated with the Ruston Tacoma Smelter plume, the Project must prevent visible dust during excavation, transportation, and placement operations. The Project must implement dust control³⁹ measures, such as spraying soil with water, during excavation or grading operations. The Project should also prevent soil spillage during transport.

Space on the construction site will be limited and quick decisions must be made regarding stockpiling and disposal in order to minimize delays to earthwork contractors. Contaminated soils generated during construction must be handled in a manner that prevents the spread of contamination to water, clean soil and air. When temporary stockpile storage is needed on site, contaminated soils must be placed on and covered with plastic sheeting, and secured at the edges to prevent wind erosion and infiltration of rain. Any water that collects within the contaminated stockpile area will require sampling and/or treatment prior to disposal. Contaminated

³⁸ Contaminated groundwater is not included here because the proposed Project does not anticipate excavating to groundwater depths.

³⁹ <http://www.ecy.wa.gov/biblio/96433.html>

stockpiles must be routinely inspected and maintained, and cannot remain on site longer than 90 days without a permit.

To determine reuse or disposal requirements, a qualified environmental professional with field experience following USEPA SW846 procedures must collect representative samples of contaminated stockpiles. The environmental professional should carefully document sampling work to describe site observations and methods used to collect soil samples. After sampling, no additional soil should be added to the stockpile.

To avoid stockpiling, the contractor can work with the disposal facility and/or the Jurisdictional Health Department (JHD) to pre-designate soil for “direct-haul” disposal during excavation. This requires advance coordination with the disposal facility and JHD to establish knowledge of the waste material and the sampling requirements that must be met prior to waste acceptance.

Sampling results help evaluate cost effective management options for excavated soils. The following potential management options can be considered:

- Soil with contamination at concentrations less than MTCA cleanup levels would, in some cases, be left on the site and used for general fill material (i.e., placed under road or rail beds), provided there is adequate fill capacity and the soil meets the geotechnical fill requirements.
- Soil with contamination at concentrations greater than MTCA cleanup levels, but not triggering a dangerous waste designation, would be transported to a regional solid waste landfill for disposal.
- Soil designated as dangerous waste⁴⁰ would be transported to a licensed hazardous waste landfill for disposal.

The contractor is responsible for disposing of contaminated or hazardous soils at a legally permitted disposal facility. The Project contract should require the contractor to provide the Project Engineer a copy of the shipping manifest or bill of lading indicating the amount of material hauled to disposal, and bearing the disposal site operator’s confirmation for receipt of the materials.

With respect to area wide surface soil metal contamination, Ecology provided guidance on the reuse of soils contaminated by arsenic and lead

⁴⁰ Per WAC173-303, contaminated soil that exceeds any hazardous waste toxicity characteristic threshold concentrations, as determined using the Toxicity Characteristic Leaching Procedure (TCLP), is designated and handled as a dangerous waste. If soil is characterized as a dangerous waste, WSDOT or the contractor would obtain a dangerous waste identification number by submitting completed documentation (Form 2, Notification of Dangerous Waste Activities) to Ecology.

at low to moderate levels through the *Area Wide Soil Contamination Task Force Report*.⁴¹ The report describes how physical barriers can be used at sites to prevent or limit exposure to metals-contaminated soil (arsenic and lead) or unauthorized access to a property. Examples of barriers include fences, grass cover, wood chips, clean soil cover, geotextile fabric (used under wood chips or clean soil cover), and pavement. Contaminated soil might be consolidated and covered with a physical barrier such as asphalt or landscape berm.

Creosote Treated Railroad Ties

Creosote treated wood must be disposed of or reused within 180 days following removal from use. Ecology encourages the reuse of treated wood⁴² as a preferred management alternative. If the wood is reused, it is not regulated as a dangerous waste⁴³ provided that the reuse is consistent with the intended end use of the treated wood. Examples of reuse include: fence posts, retaining walls, landscaping, decks, and general construction. The company nearest to the Project that recycles treated wood for landscaping is A&K Railroad Materials, Inc.,⁴⁴ located on River Road East in Tacoma. Creosote treated wood may also be burned for energy recovery in an industrial furnace or boiler that has an order of approval issued pursuant to RCW 70.94.152 or a local air pollution control authority. If not burned for energy or recycled, treated wood will typically be accepted at a municipal solid waste landfill, such as LRI Landfill⁴⁵ in Graham, without analytical testing.

Rail Ballasts

Rail ballasts are suspected to be contaminated from a history of spills or may contain heavy metals related to slag produced from the Ruston ASARCO Smelter north of Tacoma. Suspected contamination may constrain the rail ballast's marketability as a valuable co-product or recyclable material and compel disposal at a municipal solid waste landfill. However, there are environmentally responsible alternatives to reusing the ballast material and diverting the waste from taking up valuable landfill space. Slag itself is a renewable mineral resource and its use reduces the consumption of natural resources by the construction industry. Examples of construction applications of slag in the United States include: aggregate in asphaltic concrete; fill; unconfined bases; shoulder stabilization; berm construction, railroad sub-base; base for walkways.⁴⁶

⁴¹ http://www.ecy.wa.gov/programs/tcp/area_wide/Final-Report/index.htm

⁴² Per Ecology's January 2003 Publication 03-04-038 at

<http://www.ecy.wa.gov/biblio/0304038.html>

⁴³ WAC 173-303-071

⁴⁴ www.akrailroad.com/

⁴⁵ <http://www.lrilandfill.com/>

⁴⁶ http://www.nationalslag.org/archive/nsa_risk_assessment_summary.pdf

The rail ballast waste can be recycled for use as an aggregate. As a secondary aggregate, construction and demolition waste needs to be crushed, screened and graded. The waste can be taken off site to a permanent recycling plant. Recycling plants are treated as a waste management facility and require permits from the local JHD.

The JHD may provide approval to reuse the ballast as engineered fill. Sometimes reuse of mildly contaminated solid waste may be permitted by the JHD with certain environmental protections, such as:

- Prior to reuse, information regarding the nature and extent of contamination shall be provided to all potential recipients.
- Reuse location is within sites that are zoned for industrial areas.
- Reused material is not placed on sites located within a 10-year travel time for a Category I Aquifer recharge area.
- Reuse location is set back 200 feet from any drinking water well, 50 feet from any surface water, and 25 feet from any property line.
- Reuse location is above the seasonal high water table.
- Reused material shall have 1-2 feet of clean cover.
- Reuse area is not located within a critical area.
- Reused material is not placed under any stormwater detention or infiltration structure.

Underground Storage Tanks

USTs and other related underground features (i.e., piping or oil/water separator systems) that may be encountered (although unlikely on the Project) during construction would be removed in accordance with Ecology requirements under WAC 173-360. Associated petroleum-contaminated soil around the tanks and the systems would be removed and disposed of or treated in place according to regulatory requirements (see Attachment E). If contamination is left in place, the appropriate follow up work would be conducted in accordance with MTCA regulations.

Demolition

Before demolition of structures, a comprehensive survey would be performed to identify and assess quantities of hazardous building materials (i.e., asbestos-containing materials and lead-based paint) to allow for proper removal and disposal. The survey would be conducted in accordance with applicable federal, state, and local regulations governing the handling and removal of these hazardous materials (see Attachment E).

Worker Safety and Public Health

Contract provisions are added to the construction contract to notify the contractor of site specific conditions, and the location of where hazardous material investigations are available. The contractor must take precautions and perform any necessary work to provide and maintain a safe and healthful worksite. Site-specific minimization measures would be implemented to minimize risks of both airborne and direct contact exposure. To limit contact by construction workers and the public, and to minimize the spread of contamination into the surrounding environment, increased construction-zone setbacks, additional barriers to public access, and prompt removal of contaminated materials would be required.

The contractor would be required to train the construction workers on handling hazardous materials, contingency planning for contaminated media, and secondary containment for hazardous materials. The Occupational Safety and Health Act (OSHA) establishes requirements for site safety procedures, worker training, and worker safety and health standards for employees engaged in work related to or potential exposure to hazardous materials and substances.

Minimization for Cleanup Liability

The preference is to avoid acquiring, excavating, or dewatering contaminated sites; however, when no feasible alternative or design option is available, WSDOT is forced to acquire and/or construct on contaminated property in order to complete the construction project. FRA and WSDOT's primary responsibility is to clearly demonstrate that all appropriate inquiry has been undertaken to discover, investigate, and characterize contamination, and, once contamination is discovered, to ensure that due care is exercised to prevent the release or spread of contamination. Additional guidance related to liability and project development is provided in Section 447 of the WSDOT *Environmental Procedures Manual*.⁴⁷

To manage the risks related to liability for cleanup, when necessary, WSDOT performs all appropriate inquiry before acquiring and building on potentially contaminated property. All appropriate inquiry includes a site reconnaissance, and/or varied levels of Phase I and II environmental site assessments generally following American Society for Testing and Materials (ASTM) Standards 1527, 1528, and 1903. The type and level of environmental investigation is considered on a case-by-case basis.

When USTs or contamination are identified before property acquisition, a fair market property value should be assigned to consider remediation

⁴⁷ WSDOT 2011

costs and potential long-term (i.e., ongoing monitoring and site management) cleanup costs. To limit potential liability risks before acquisition, performance bonds, indemnifications, and other negotiating tools may be used to minimize costs and cleanup liability.

Project Property Acquisition

Based on available information, a combined Phase I and II investigation is specifically recommended prior to acquisition of any of the three proposed parking lot sites. The Phase I investigation would identify the historic uses of the property along with the presence or likely presence of any hazardous substances. The Phase II investigation (sampling work) would further define the type and extent of any existing contamination. The information from these investigations would be used to determine the potential cleanup liability that WSDOT could inherit by purchasing all or portions of these properties. In addition, the information may also be used to negotiate with the current property owners to take responsibility for cleaning up contamination prior to acquisition.

Project Work at Freighthouse Square

Freighthouse Square has contamination above MTCA Method A cleanup levels and is subject to an environmental Restrictive Covenant. Construction work proven to spread or contribute to existing contamination may identify WSDOT as a liable party for ongoing cleanup and monitoring costs.

The Project is anticipated to require some amount of ground disturbance which will require prior coordination with Ecology to ensure any ground work is in compliance with established restrictions. A copy of the Restrictive Covenant is included in Attachment D. Special precaution must be taken to abide by the Restrictive Covenant and prevent WSDOT from inadvertently inheriting long-term cleanup liability.

Limitations

Although FRA and WSDOT have identified most of the land uses that would typically involve hazardous material in this report, no level of reasonable inquiry can ensure that all contamination is identified. Encountering unknown or undocumented hazardous materials in the study area is possible.

Based on the professional judgment of Tanya Bird, a WSDOT Hazardous Materials Specialist, this report documents the appropriate level of investigation necessary to identify potentially contaminated sites that may affect the environment, create construction effects, and/or incur potential cleanup liability to WSDOT.

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List of Attachments

Attachment A – Acronyms

*Attachment B – Map of Soil Disturbance Areas, Acquisition Sites and
Hazardous Materials Sites of Concern*

Attachment C – Regulatory Record Search: Initial Screening Tables

Attachment D – Restrictive Covenant for Freighthouse Square

Attachment E – Applicable Federal and State Regulations

Attachment A - Acronyms

| | |
|---------|--|
| ACM | Asbestos-Containing Material |
| ASARCO | American Smelting and Refining Corporation |
| AST | Aboveground Storage Tank |
| ASTM | American Society for Testing and Materials |
| bgs | below ground surface |
| BMP | Best Management Practice |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERCLIS | Comprehensive Environmental Response, Compensation, and Liability Information System |
| CFR | Code of Federal Regulations |
| CSCSL | Washington State Confirmed and Suspected Contaminated Sites List |
| DEIS | Draft Environmental Impact Statement |
| EDR | Environmental Data Resources, Inc. |
| EIS | Environmental Impact Statement |
| EPM | <i>Environmental Procedures Manual</i> |
| FEIS | Final Environmental Impact Statement |
| FHWA | Federal Highway Administration |
| FINDS | Facility Index System |
| GIS | Geographical Information System |
| GMA | Growth Management Act |
| HSL | Washington State Hazardous Sites List |
| HWG | Hazardous Waste Generator |
| ICR | Independent Cleanup Reports |
| IRAP | Independent Remedial Action Program |
| ISIS | Integrated Site Information System |
| LBP | lead-based paint |
| LSC | Local Source Control |
| LUST | Leaking Underground Storage Tank |
| MP | Mile Post |
| MTCA | Model Toxics Control Act |
| NEPA | National Environmental Policy Act |
| NFA | No Further Action |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |
| PCS | Petroleum Contaminated Soil |
| PLP | potentially liable party |

| | |
|-------------|--|
| PSCAA | Puget Sound Clean Air Agency |
| RCRA | Resource Conservation and Recovery Act, 42 USC Section 6901-9651 |
| ROD | Record of Decision |
| ROW | right-of-way |
| RSVP | Revised Site Visit Program |
| SCS | State Cleanup Site |
| SEPA | State Environmental Policy Act |
| SPCC | Spill Prevention, Control, and Countermeasures |
| SWGP | Stormwater General Permit |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWD | State Waste Discharge |
| SWF | Solid Waste Facility |
| TCE | Tetrachloroethylene |
| TESC | Temporary Erosion and Sediment Control |
| TPH | Total Petroleum Hydrocarbons |
| USEPA | US Environmental Protection Agency |
| USI | Urban Waters Site Inspection |
| UST | Underground Storage Tank |
| UWI | Urban Waters Initiative |
| VOCs | volatile organic compounds |
| VCP | Voluntary Cleanup Program |
| WA Manifest | Waste Manifest |
| WAC | Washington Administrative Code |
| Ecology | Washington State Department of Ecology |
| WDOH | Washington State Department of Health |
| WSDOT | Washington State Department of Transportation |

Attachment B - Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern

Attachment C - Regulatory Record Search: Initial Screening Tables

Table C-1: Regulatory Record Search - Freighthouse Square Area

Table C-2: *Hazardous Materials Technical Memorandum* Identified Sites/Areas (August 2007)

Table C-3: Regulatory Record Search – Soil Disturbance Areas

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|--|--|--|--|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 1 | Johnnys Fine Food 319 East 25 th Street Tacoma | Site ID# 10734 – Listing: RSVP Release: No documented releases. | North of proposed parking lot #2 (PP2) | x |
| 2 | Freighthouse Square 25 th and "G" Street East Tacoma | Site ID# 1351 Listing: VCP Release: Site received a No Further Action determination in July 2003. An Environmental Covenant restricts certain activities. Site has contaminated groundwater (priority pollutant metals) and reports that petroleum contaminated soils have been remediated. Ongoing monitoring is active. | High impact Any disturbance work on this property requires prior Ecology approval. | Documented Release |
| 3 | Star Tours 224 Puyallup Avenue Tacoma | Site ID# 7722 Listing: UWI Release: No documented releases. | | |
| 4 | Puget Sound Specialty 706 East 25 th Street Tacoma | Site ID# 23657 Listing: UWI, RSVP Release: No documented releases. | East of Freighthouse Square on rail alignment. | x |
| 5 | SME Solutions 313 East 26 th Street Tacoma | Site ID# 3722 Listing: UWI Release: No documented releases. | North of PP2 | x |
| 6 | HJB Marine 601 East 26 th Street Tacoma | Site ID# 3081 Listing: UWI, RSVP Release: No documented releases. | South of Freighthouse Square. | x |
| 7 | Storage Box The 216 Puyallup Avenue Tacoma | Site ID# 21558 Listing: UWI Release: No documented releases. | | |
| 8 <i>Same address as #20</i> | Melody Meats 323 East 26 th Street Tacoma | Site ID# 24527 Listing: UWI Release: No documented releases. | South of PP2 and west of PP3 | x |
| 9 | Mystic Mocha 402 East 26 th Street Tacoma | Site ID# 19140 Listing: UWI, RSVP Release: No documented releases. | | x |
| 10 | Tacoma Bike 309 Puyallup Avenue Tacoma | Site ID# 21699 Listing: UWI Release: No documented releases. | | |
| 11 <i>Same address as #23</i> | Evergreen Equipment Company 221 Puyallup Avenue Tacoma | Site ID# 4475 Listing: UWI Release: No documented releases. | | |
| 12 | Edge Technologies 314 East 26 th Street Tacoma | Site ID# 21372 Listing: UWI, RSVP Release: No documented releases. | | |

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|--|---|---|--|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 13 | Cascade Friction Materials 314 Puyallup Avenue Tacoma | Site ID# 7003 Listing: UWI, RSVP Release: No documented releases. | | |
| 14 | BNRR Tacoma Yard Pond 605 Puyallup Street Tacoma | Site ID# 1373 / Cleanup Site ID# 274 Listing: IRAP, Industrial Southwest GP) Release: Site received a No Further Action determination in 1996. Soil is suspected to be contaminated with Halogenated Organics. Active O&M monitoring is ongoing. | Low Risk due to distance and hydraulic gradient. | Documented Release |
| 15 Same site as #42 | Bulls Eye Indoor Range 414 Puyallup Avenue Ste B Tacoma | Site ID# 19339 Listing: RSVP, UWI Release: No documented releases. | North of PP1 | x |
| 16 | Legacy Renovations 511 Puyallup Avenue Tacoma | Site ID# 20621 Listing: UWI Release: No documented releases. | | |
| 17 | Smurfit Stone Container Corp 817 East 27 th Street Tacoma | Site ID# 17167958 / Cleanup Site ID: 4529 Listing: SCS, VCP , HazWaste Generator, Industrial Southwest GP Release: Petroleum contaminated groundwater is confirmed, and petroleum contaminated soil is suspected. Ecology ranking is 5 (with #1 being a high priority and #5 being the lowest priority). | | Documented Release |
| 18 | Salvation Army ARC 409 Puyallup Avenue Tacoma | Site ID# 12432118 Listing: HazWaste Generator Release: No documented releases. | | |
| 19 | Johnson Stone Countertop 523 Puyallup Avenue Tacoma | Site ID# 11685 Listing: UWI Release: No documented releases. | | |
| 20 Same address as #8 | Gary W Johnson 323 East 26 th Street Tacoma | Site ID# 14281979 Listing: UST Release: No documented releases. | South of PP2, West of PP3 | x |
| 21 | LeMay Americas Car Museum 2727 East "D" Street Tacoma | Site ID# 19576 Listing: Construction Southwest GP Release: No documented releases. | | |
| 22 Same address as #41 | Gonzales Motors 301 Puyallup Avenue Tacoma | Site ID# 91599266 / Cleanup ID# 11037 Listing: LUST, UST Release: Petroleum contaminated soil was independently remediated to below cleanup levels. Benzene, lead and other non-halogenated organics exist below cleanup levels in soils. | Low Risk due to distance and hydraulic gradient | Documented Release |
| 23 Same address as #11 | McLeans Auto Repair 221½ Puyallup Avenue East Tacoma | Site ID# 9218743 Listing: UWI Release: No documented releases. | | |

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|--|--|--|---|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 24 | BNSF Tacoma Fueling Facility 1001 Puyallup Avenue Tacoma | Site ID# 7981609 / Cleanup ID# 1634 Listing: SCS Release: Groundwater is contaminated with solvents and petroleum. Soil has petroleum contamination, and along with suspected solvents. Ecology rank of 5. | Low Risk due to distance and hydraulic gradient | Documented Release |
| 25 | South Sound Radiator 509 Puyallup Avenue Tacoma | Site ID# 8785404 / Cleanup Site ID# 3600 Listing: SCS Release: Soil is contaminated with solvents and petroleum. Groundwater is suspected to be contaminated with the same. Ecology rank of 2. | Low Risk due to distance and hydraulic gradient | Documented Release |
| 26 | Industrial Parts Frictions I 409 East 26 th Street Tacoma | Site ID# 99982525 Listing: HazWaste Generator Release: No documented releases. | On the PP3 site. | x |
| 27 | F & E Investments 401 East 25 th Street Tacoma | Site ID# 99973128 Listing: UST (inactive) Release: No documented releases. | East of PP1 | x |
| 28 <i>Same address as #40</i> | Spring Air Northwest 725 East 25 th Street Tacoma | Site ID# 9111625 / Cleanup ID# 5476 Listing: HazWaste Generator (x2), LUST, VCP and UST Release: Soil and groundwater is contaminated with petroleum products. | Kiddy corner to northwest of Freighthouse Square | Documented Release |
| 29 | SME Corp 311 East 26 th Street Tacoma | Site ID# 82577212 Listing: HazWaste Generator (x3) Release: No documented releases. | South of PP2 | x |
| 30 | Puget Sound Metal 2607 East "G" Street Tacoma | Site ID# 9147902 Listing: UWI, RSVP Release: No documented releases. | Near PP4 <i>Mid-way through evaluation, Proposed Parking area #4 was eliminated and no longer considered.</i> | x |
| 31 | Precision Pattern Inc 2620 East "G" Street Tacoma | Site ID# 85239825 Listing: HazWaste Generator (x4), SCS, VCP, UWI , and Industrial Southwest GP Release: Ground water and soil was historically contaminated with solvents and petroleum products. Ecology rank of 5. Site received a No Further Action determination in March 2009. Active ongoing O&M/Monitoring. | Near PP4 <i>Mid-way through evaluation, Proposed Parking area #4 was eliminated and no longer considered.</i> | Documented Release |
| 32 | Industrial Rubber & Supply Tacoma 2307 East "D" Street Tacoma | Site ID# 7529359 Listing: HazWaste Generator Release: No documented releases. | | |
| 33 | Don Engle Distributing Inc 2601 East "F" Street Tacoma | Site ID# 75382517 Listing: UST, UWI and RSVP Release: No documented releases. | Near PP4 and south of Freighthouse Square <i>Mid-way through evaluation, Proposed Parking area #4 was eliminated and no longer considered.</i> | x |

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|--|---|---|---|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 34 | Sound Transit 25 th Street 802 East 25 th Street Tacoma | Site ID# 5117180 Listing: UWI, RSVP Release: No documented releases. | Near PP4 next to rail alignment <i>Mid-way through evaluation, Proposed Parking area #4 was eliminated and no longer considered.</i> | x |
| 35 | Pickering Industries Inc 2102 East D Street Tacoma | Site ID# 75455429 Listing: HazWaste Generator, UST Release: No documented releases. | | |
| 36 | Superior Cartage of Washington Inc 805 Puyallup Avenue Tacoma | Site ID# 4291751 Listing: UST, UWI Release: No documented releases. | | |
| 37 | Industrial Tire Service ITS 423 Puyallup Avenue Tacoma | Site ID# 3291385 / Cleanup ID# 5316 Listing: UST, SCS, VCP (x2) , UWI Release: Soil is contaminated with metals, solvents and gasoline. Groundwater is suspected to be contaminated with the same. | Low Risk due to distance and hydraulic gradient. | Documented Release |
| 38 <i>Same address as #55</i> | Golden Line Recycling Corp 217 East 25 th Street Tacoma | Site ID# 610068 Listing: UWI, RSVP Release: No documented releases. | North of PP2 | x |
| 39 | Paramount Electric 225 South Tacoma Way Tacoma | Site ID# 77241262 Listing: LUST, UST , HazWaste Generator Release: Soil contaminated with Benzene, lead, non-halogenated organics and gasoline is reportedly cleaned up to below cleanup levels. Contaminated groundwater was not suspected. | Next to rail alignment, but this stretch does not require excavation. | Documented Release |
| 40 <i>Same address as #28</i> | For Kids Only 725 East 25 th Street Tacoma | Site ID# 18665 Listing: UWI, RSVP Release: No documented releases. | Kiddy corner to northwest of Freighthouse Square. | x |
| 41 <i>Same address as #22</i> | Art The Studio 301 Puyallup Ste C Tacoma | Site ID# 2285826 Listing: UWI Release: No documented releases. | | |
| 42 <i>Same site as #15</i> | Bulls Eye Supply 414 Puyallup Avenue Tacoma | Site ID# 11329 Listing: UWI, RSVP Release: No documented releases. | North of PP1 | x |
| 43 | All Transmissions Pine Street 505 Puyallup Avenue Tacoma | Site ID# 71491862 Listing: HazWaste Generator, UWI Release: No documented releases. | | |

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|--|---|--|---|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 44 | Tacoma Dome Station 500 Puyallup Avenue Tacoma | Site ID# 1266 Listing: SCS , Industrial Southwest GP Release: Petroleum contaminated soil and groundwater was reported as remediated. Ecology issued a No Further Action determination in January of 2001. An Environmental Covenant is assigned. Active O&M/Monitoring is ongoing. | The parking garage north of Freighthouse Square | Documented Release |
| 45 | BNRR Tacoma Yard Parcel 8950001730 21 st Street and South "D" Street Tacoma | Site ID# 1267 Cleanup ID# 3554 Listing: VCP Release: Soil and groundwater is contaminated with petroleum products and "base/neutral/acid organics." Soil and groundwater is suspected of being contaminated with Polynuclear Aromatic Hydrocarbons. Ecology rank of 3. | Low Risk due to distance and hydraulic gradient. | Documented Release |
| 46 <i>Same address as #50</i> | Joseph Simon & Sons 2200 E River Street Whse 1 Tacoma | Site ID# 76785838 Listing: HazWaste Generator Release: No documented releases. <u>Note:</u> Same site as Commencement Bay Superfund Site—OU3 Tacoma Tar Pits | | |
| 47 | TNT Reddaway Truck Line Inc 801 East 26 th Tacoma | Site ID# 64849946 Listing: HazWaste Generator, RSVP, UWI Release: No documented releases. | East of PP4 <i>Mid-way through evaluation, Proposed Parking area #4 was eliminated and no longer considered.</i> | x |
| 48 | Golden West Motel 503 East 26 th Tacoma | Site ID# 62113225 Listing: HazWaste Generator Release: No documented releases. | | x |
| 49 | Manna Pro Co 518 Puyallup Avenue Tacoma | Site ID# 46689617 / Cleanup ID# 9332 Listing: LUST, UST Release: Soil and groundwater is contaminated with petroleum. | The parking garage north of Freighthouse Square | Documented Release |
| 50 <i>Same address as #46</i> | Commencement Bay – Nearshore Tidelats Superfund Site - Tacoma Tar Pits OU3 PSE Tacoma Historical Coal Gas 2200 East River Street Tacoma | Site ID# EPA Superfund Site ID WAD980723795 , Ecology Site ID# 221 & 48791451 Listing: Superfund Site and HazWaste Generator (x2) Release: Soils are contaminated with metals, non-halogenated solvents, Polychlorinated biPhenyls and Polynuclear Aromatic Hydrocarbons (PAHs). Groundwater is contaminated with metals, non-halogenated solvents and PAHs. | Low Risk due to distance and hydraulic gradient. Located North of SR 509. | Superfund |
| 51 | Simon Metals LLC 2202 East River Street Tacoma | Site ID# 31265844 Listing: HazWaste Generator (x4), UWI, Industrial Southwest GP and Energy Recovery Release: No documented releases. This site is next to #46 and #50. | | |
| 52 | Atlas Trucking Inc Spill Puyallup Avenue and "D" Street Tacoma | Site ID# 32438185 Listing: HazWaste Generator Release: No documented releases. | No documented releases. | |
| 53 | Airspares 415 East 25 th Street Tacoma | Site ID# 39438729 Listing: HazWaste Generator Release: No documented releases. | Located on the PP1 site | x |

Attachment C-1: Regulatory Record Search - Freighthouse Square Area

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Freighthouse Square Area | | | | |
|---|--|---|---|---|
| ID# | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes <i>PP = Proposed Parking</i> | Sites of Concern Superfund Documented Release <i>x = Regulated Site on or immediately adjacent to Freighthouse Square or Proposed Parking areas</i> |
| 54 | Pierce Transit Tacoma Dome 609 E 25 th Street Tacoma | Site ID# 25441163 Listing: HazWaste Generator Release: No documented releases. | The eastern parking garage across from Freighthouse Square. | x |
| 55 | Frontier Transportation Company 217 25 th Street East Tacoma | Site ID# 27655611 Listing: UST Release: No documented releases. | | |
| 56 | Alfreds Café 402 Puyallup Avenue Tacoma | Site ID# 15568 Listing: UWI, RSVP Release: No documented releases. | | |
| 57 | PLYTAC 801 East 25 th Tacoma | Site ID# 8091750 Listing: UWI Release: No documented releases. | | |
| 58 | Stone Property Transit Site E 25 th and East "C" Street Tacoma | Site ID# 3782573 / Cleanup ID# 401 Listing: VCP Release: Soil is contaminated with Arsenic, other Metals, petroleum products and Polynuclear Aromatic Hydrocarbons (PAHs). Solvents in soil are below cleanup levels. Groundwater is suspected of being contaminated with metals, petroleum and PAHs. Ecology rank of 3. | Appears to be the PP2 lot. | Documented Release |
| Summary: Out of 58 identified sites in the Freighthouse Square area, 15 have documented releases. Out of the 15, one site is a Superfund site. | | | | |

Attachment C-2. Hazardous Materials Technical Memorandum Identified Sites/Areas (August 2007)

2007 HazMat Sites, Per Hazardous Materials Technical Memorandum page 25 & 26

Coverage: Rail Mile Post (RMP) 6.9 to 21.5. From 66th Street in Tacoma to Nisqually South Terminus

| Map ID# / | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Database Listing <i>(As stated in 2007 Tech Memo)</i> | Impact <i>(As stated in 2007 Tech Memo)</i> |
|-----------|--|---|--|--|
| 59 | 6.9 / W | Enslow Roofing Company 3640 66 th Street Tacoma | FINDS, UST, WA MANIFEST, BROWNFIELDS, UST | Adjacent to Project, no known construction below 2-3 feet near site. |
| 60 | 7.2 / E | Five Star Motors 7030 South Tacoma Way Tacoma | UST, UST, RCRA-SQG, FINDS, WA MANIFEST, UST | Adjacent to Project, no known construction below 2-3 feet near site. |
| 61 | 7.3 / E | South Side Motors Inc 7202 South Tacoma Way Tacoma | RCRA-SQG, FINDS, UST, VCP, ICR, SPILLS | Adjacent to Project, no known construction below 2-3 feet near site. |
| 62 | 7.65 / E | South Tacoma Honda & Contract Applications 7802 South Tacoma Way Tacoma | RCRA-SQG, FINDS, LUST, UST, WA MANIFEST, ICR, SPILLS | Adjacent to Project, no known construction below 2-3 feet near site. |
| 63 | 8.1 / E | Interbake Foods Inc 8500 Durango Street Southwest Tacoma | RCRA-SQG, FINDS, UST, CSCSL, VSP, WA, MANIFEST, ICR | Adjacent to Project, no known construction below 2-3 feet near site. |
| 64 | 8.25 / E | Canteen Co of Tacoma 3858 87 th Southwest Tacoma | FINDS, UST, WA MANIFEST, CSCSL, VCP, ICR | Adjacent to Project, no known construction below 2-3 feet near site. |
| 65 | 8.3 / E | Import Auto Center Inc 3865 Steilacoom Blvd Southwest Tacoma | RCRA-SQG, FINDS, WA MANIFEST, CSCSL, VCP, ICR | At MP 8.3, excavation begins adjacent to property at cut slope. |
| 66 | 8.4 / W | Harold Lemay Enterprises Inc 3902 Steilacoom Blvd Southwest Tacoma or 3902 39 th Avenue Southwest Lakewood | RCRA-SQG, FINDS, WA MANIFEST, CSCSL, VCP, ICR | At MP 8.3, excavation begins adjacent to property at cut slope. |
| 67 | 8.35 / W | Lakewood Cleaners 3907 Steilacoom Blvd Southwest Lakewood | RCRA-SQG, FINDS, Inactive Drycleaners, WA MANIFEST, VCP | At MP 8.3, excavation begins adjacent to property at cut slope. |
| 68 | 7.9 – 8.35 / W | Mountain View Memorial Park 4100 Steilacoom Blvd Southwest Lakewood | FINDS, LUST, UST, ICR, FINDS | Adjacent to Project and down gradient, no known construction below 2-3 feet. |
| 69 | 8.65 / E | Precision Prehung Door Inc 9402 39 th Avenue Ct Southwest Lakewood | FINDS, LUST, UST, ICR, FINDS | Adjacent to Project, no known construction below 2-3 feet near site. |

Attachment C-2. Hazardous Materials Technical Memorandum Identified Sites/Areas (August 2007)

| 2007 HazMat Sites, Per Hazardous Materials Technical Memorandum page 25 & 26 Coverage: Rail Mile Post (RMP) 6.9 to 21.5. From 66 th Street in Tacoma to Nisqually South Terminus | | | | |
|---|--|--|---|---|
| Map ID# / | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Database Listing <i>(As stated in 2007 Tech Memo)</i> | Impact <i>(As stated in 2007 Tech Memo)</i> |
| 70 | 8.7 / W | Shepard Ambulance Inc 9425 Lakeview Avenue Southwest Lakewood | RCRA-SQG, FINDS, WA MANIFEST, UST, ICR, SPILLS | At MP 8.7, excavation begins adjacent to property at cut slope. Property is down gradient from Project. |
| 71 | 8.7 / E | Contractors Building Supply Inc 9516 39 th Avenue Ct Southwest Lakewood | FINDS, LUST, UST, ICR | At MP 8.7, excavation begins |
| 72 | 9.55 / E | Geo Scofield Co Inc 108 th and Halycon Lakewood | UST, FINDS, WA MANIFEST, ICR <i>NOTE: FS 59773265 shows this site as a UST only.</i> | Excavation begins at at-grade crossing upgrade at MP 9.5 |
| 73 | 10.15 / E | Oriental Auto Body 11618 Pacific Highway Southwest Lakewood | RCRA-SQG, FINDS, ICR, WA MANIFEST, VCP <i>NOTE: FS 87778789 shows this site as a Generator only.</i> | Adjacent to Project, no known construction below 2-3 feet near site. |
| <i>NOTE: Aug 2011 Project Footprint PDF shows soil disturbance work below 2-3 feet bgs beginning at Rail MP 10.4 (Bridgeport Way Southwest) and continuing through the end of the Project at Rail MP 21.5 (Nisqually Junction terminus). Thus the sites listed above in this table would not have an impact on the Project since no excavation or acquisition is planned.</i> | | | | |
| 74 | 10.3_31 / E | U Haul of Lakewood 11740 Pacific Highway Southwest Lakewood | RCRA-SQG, FINDS, CSCSL, VSP, Inactive Drycleaners, UST | At MP 9.3, excavation begins adjacent to property at cut slope. |
| 75 Same site as #87 | 10.5 / E | Tune Up and Lube King 11924 Pacific Highway Southwest Lakewood | FINDS, UST, CSCSL, VCP, Inactive Drycleaners, UST | At MP 9.3, excavation begins adjacent to property at cut slope. |
| 76 Same site as #91 | 10.542 / E | AAMCO Transmission 12006 Pacific Highway Southwest Lakewood | UST, FINDS, CSCSL, VCP, Inactive Drycleaners, UST | At MP 9.3, excavation begins adjacent to property at cut slope. |
| 77 Same address as #103 | 10.4 / E East of Pacific Hwy | Conoco Phillips Company / 253588 11919 Pacific Highway Southwest Lakewood | LUST, UST, WA MANIFEST, VCP, Inactive Drycleaners | At MP 9.3, excavation begins adjacent to property at cut slope. |
| 78 Same site as #110 | 10.9 / E | Seven Eleven 2324-14469/ CLOSED Southland #14469 12336 Pacific Highway Southwest Lakewood | LUST, UST, VCP, ICR, SPILLS | Adjacent to Project, no known construction below 2-3 feet near site. |

Attachment C-2. Hazardous Materials Technical Memorandum Identified Sites/Areas (August 2007)

2007 HazMat Sites, Per Hazardous Materials Technical Memorandum page 25 & 26

Coverage: Rail Mile Post (RMP) 6.9 to 21.5. From 66th Street in Tacoma to Nisqually South Terminus

| Map ID# / | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Database Listing <i>(As stated in 2007 Tech Memo)</i> | Impact <i>(As stated in 2007 Tech Memo)</i> |
|-------------------------|--|--|--|--|
| 79 Same site as #111 | 11.0 / E | Ponders Collision Center 12424 Pacific Highway Southwest Lakewood | RCRA-SQG, FINDS, WA Manifest, UST, ICR, SPILLS | At MP 10.9, excavation begins near property at cut slope. |
| 80 | 10.9 – 11.2 | USEPA Lakewood Superfund Site AKA: Lakewood Ponders Corner or Plaza Cleaners Near I-5 and New York Avenue Lakewood | EPA Superfund, EPA ID# WAD050075662, Ecology ID# 224 Release: Groundwater contaminated with halogenated organic compounds. Soil was contaminated with the same, but reported as remediated. | Near MP 11, contaminated groundwater under railway at 30-40 feet below the surface. Contact with contaminated groundwater is not expected. |
| 81 | 11.8-12.8 Estimated East | American Lake Gardens USAF MAFB American Lake Gdn 62ABG DEEV McChord AFB | EPA Superfund, EPA ID# WAD980833065, Ecology ID# 239 Release: Groundwater, surface water, soil and air are confirmed to be contaminated with halogenated organics and non-halogenated solvents. Site unit status is reported as cleanup complete with active ongoing monitoring work, along with an environmental covenant. | Near alignment on the east from approximated MP 11.8 to MP 12.8. Contaminated groundwater does not extend under railway. |
| 82 | 13.0 – 15.4 | Fort Lewis Logistics Center US Army Fort Lewis I-5 Corridor AKA: Evergreen Infiltration Range Fort Lewis | EPA Superfund, EPA ID# WA7210090067, Ecology ID# 38394393 Release: Soil is contaminated with metals and petroleum, and is suspected to have organic conventional contaminants. Groundwater is suspected to be contaminated with the same. Ecology ranking of 2 (with 1 has the highest priority and 5 being the lowest). | Near MP 13.0 through MP 15.4 <i>(from approximately Lake Street to 41st Division)</i> , contaminated groundwater in lower confined aquifer that extends under the rail line. Construction at Rail MP 14.5 and Rail MP 15.5 may extend below 2-3 feet below the surface, although contact with contaminated groundwater is not expected. |
| 83 | | Sound Transit Rail Property Area Wide | | |
| 84 | | Tacoma Smelter Plume Area Wide | | |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|--|--|---|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 85 | 10.3 / E | All Nations Auto Sales 11711 Pacific Hwy Southwest Lakewood | Site ID# 16778 Listing: HazWaste Generator Release: No documented releases. | Away from rail alignment. East of Pacific Hwy | |
| 86 | 10.5_41 / E | Lakewood Transmission Inc 12015 Pacific Hwy Southwest Lakewood | Site ID# 23655 Listing: HazWaste Generator Release: No documented releases. | Away from rail alignment. East of Pacific Hwy | |
| 87 Same site as 75. | 10.5 / E | Tune Up and Lube King 11924 Pacific Highway Southwest Lakewood | Site ID# 93774152 Listing: UST(I) Release: No documented releases. 2007 Report: FINDS, UST, CSCSL, VCP, Inactive Drycleaners, UST | Next to rail alignment. 2007 Rpt: Next to alignment, at Rail MP 9.3. 2007 Report says excavation begins adjacent to property at cut slope. | X |
| 88 | 10.2_8 / E | Lakewood Foreign Car Sales Inc. 11726 Pacific Hwy Southwest Lakewood | Site ID# 24535 Listing: HazWaste Generator Release: No documented releases. | Next to rail alignment. | X |
| 89 | 10.4_39 / E | Tacoma Torque & Converters aka: American Automotive Service Center 12001 Pacific Hwy Southwest Lakewood | Site ID# 12905 Listings: HazWaste Generator, RSV Release: No documented releases. | Away from rail alignment. East of Pacific Hwy | |
| 90 | 10.3_31 / E | Flying B 18 aka: Flying B 18, NKS Mart, Sunmart 3 11747 Pacific Hwy Southwest Lakewood | Site ID# 89666788 Listings: UST(A), Enforcement Final, SCS (A) Release: This site is listed for suspected petroleum contamination and is currently awaiting cleanup. An initial investigation was completed and filed 2/2/2011. | Away from rail alignment. East of Pacific Hwy | Documented Release |
| 91 Same site as 76. | 10.5_42 / E | AAMCO Transmissions 12006 Pacific Hwy Tacoma | Site ID# 13754378 Listings: UST (I) , HazWaste Generator Release: No documented releases. 2007 Rpt says: UST, FINDS, CSCSL, VCP, Inactive Drycleaners, UST | Next to rail alignment. 2007 Rpt says: At MP 9.3, excavation begins adjacent to property at cut slope. | X |
| 92 | 10.2_26 / W | Manantial Dry Cleaners & Laundromat 4924 115 th Street Ct Southwest Lakewood | Site ID# 9931626 Listing: HazWaste Generator Release: No documented releases. | Away from rail alignment. | |
| 93 | 10.2_28 / W | Lakeview Light & Power 11509 Bridgeport Way Southwest Tacoma | Site ID# 89993185 Listings: UST (A) , HazWaste Generator Release: No documented releases. ISIS: This site is listed as having two USTs removed and currently has two operational USTs (diesel and unleaded gasoline). | Away from rail alignment. | |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|---|--|--|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 94 | 10.5_43 / W | Northern Battery Co 12012 Pacific Hwy Southwest Tacoma | Site ID# 88196364 Listing: HazWaste Generator Release: No documented releases. | Next to rail alignment. | X |
| 95 | 10.6_48 / E | Lakewood Auto Body Inc. 12126 Pacific Hwy Southwest Lakewood | Site ID# 1982929 Listing: HazWaste Generator Release: No documented releases. | Next to rail alignment. | X |
| 96 | 10.4_38 / E | Texaco Station 632320398 11910 Pacific Hwy Southwest Lakewood | Site ID# 65589345 / Cleanup Site ID: 10058 Listings: Emergency/Haz Chem Rpt, LUST (I) , HazWaste Gen (I), UST (I) Release: Soil is contaminated with petroleum products (gas and diesel) , metals, benzene, PCB contaminated below cleanup levels. Groundwater contamination is not suspected. Clean up started 12/11/1991 and the site was reported as cleaned up 2/4/1992. | Next to rail alignment. | Documented Release |
| 97 | 10.3_30 / W | Lakewood Car Wash <i>Alternate names: Gary Henricksen DBA Lakewood Car Wash</i> 11621 Bridgeport Way Southwest Tacoma | Site ID# 62315999 Listing: UST (I) Release: No documented releases. ISIS: Five USTs were removed, one unleaded, one leaded and three with unidentified contents. | Away from rail alignment. | |
| 98 See #74 – Same company, but not the same address | 10.3_33 / E | U Haul Co of Lakewood 55 11748 Pacific Hwy Southwest Lakewood | Site ID# 46845293 Listing: UST (I) Release: No documented releases. ISIS: Diesel UST has been removed. 2007 Report it identifies this site, but the address is slightly off. 2007 Report says RCRA-SQG, FINDS, CSCSL, VSP, Inactive Drycleaners, UST | Next to rail alignment. | X |
| 99 | 10.3_30 / W | Kentucky Fried Chicken 11717 Bridgeport Way Southwest Lakewood | Site ID# 41671422 Listing: UST Release: No documented releases. ISIS: Unleaded gasoline UST has been removed. | Next to rail alignment. | X |
| 100 Not the same address as #80 | 10.5_43 / E | USEPA Lakewood Superfund Site Pacific 12059 Pacific Hwy Southwest Lakewood | Site ID# 31919731 Listing: Haz-Waste Generator (I) Release: No documented releases. Also see #22 above, for 2007 Report. This site ID is a generator listing only, where #22 provides the full USEPA and Ecology ID 3s/listing info. These sites are not the same, per the address information. | All three sources have different site markers (Ecology FS, Bing and Google). Located somewhere between Rail MP 10.4 thru Rail MP 10.6. | Superfund |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|---|---|------------------------------|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 101 | 10.6 / E | Walts Radiator & Muffler Pacific Hwy 12037 Pacific Hwy Southwest Lakewood | Site ID# 28318776 Listing: HazWaste Generator Release: No documented releases. | Away from rail alignment. | |
| 102 Same address as #74 | 10.3_31 / E | U Haul Co of Lakewood 11740 Pacific Hwy Southwest Lakewood | Site ID# 2789629 Listing: HazWaste Generator Release: No documented releases. Exact address as #16 above, but 2007 report listed RCRA-SQG, FINDS, CSCSL, VSP, Inactive Drycleaners, UST | Next to rail alignment. | X |
| 103 Same address as #77 | 10.4_37 / E | TOSCO Corp Site 25358830522 <i>Alternate names: Lakewood UNOCAL, UNOCAL 3588</i> 11919 Pacific Hwy Southwest Lakewood | Site ID# 41554792 Listings: UST (A), Emergency / Haz Chem Rpt, LUST (A), Haz-Waste Management Release: Petroleum contaminated soil and groundwater. | Away from rail alignment. | Documented Release |
| 104 | 10.2_26 / W | Tyee Cleaners & Laundromat 4924 115 th Street Ct Southwest Lakewood | Site ID# 24488812 / Cleanup ID# 1783 Listings: VCP (A), Haz-Waste Gen Release: Groundwater and soil contaminated with halogenated organics. Soil has solvent contamination below cleanup levels. | Away from rail alignment. | Documented Release |
| 105 | 10.2 / W | Skelly Property 4925 115 th Street Ct Southwest Lakewood | Site ID# 10966 Listing: RSVP Release: No documented releases. | Away from rail alignment. | |
| 106 | 10.6_50 / E | Jimmy Rays Cycle LLP 12132 Pacific Hwy Southwest Lakewood | Site ID# 11577 Listing: LSC Release: No documented releases. | Next to rail alignment. | X |
| 107 Same address as #113 | 11.0_67 / E | Automotive Transport Service 12511 Pacific Hwy Southwest Lakewood | Site ID# 21719 Listing: LSC Release: No documented releases. | Away from rail alignment. | |
| 108 | 11.0_70 / E | Ponders CDLK 12605 Pacific Hwy Southwest Lakewood | Site ID# 72676472 Listing: UST (A) Release: No documented releases. ISIS: This site is listed as having 3 operational USTs (1 unleaded gasoline and 2 Diesel). | Away from rail alignment. | |
| 109 | | Pacific Highway Southwest Improvements Pacific Hwy Gravelly Lake Drive to Bridgeport | Site ID# 8349 Listing: Construction Southwest GP Release: No documented releases. | <u>Along</u> rail alignment. | X |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|---|--|--|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 110 Same site as #78 | 10.9 / E | 7 Eleven 232414469 Alternate names: 7 Eleven Store 14469, Seven Eleven # 14469, Seven Eleven 2324-14469 12336 Pacific Hwy Southwest Lakewood | Site ID# 34768492 / Cleanup ID# 8811 Listings: LUST (A); UST (I); Emergency Haz Chem Rpt (I) Release: Petroleum contaminated soil and groundwater. ISIS: 3 USTs removed 2007 Report: LUST, UST, VCP, ICR, SPILLS | Next to rail alignment. | Documented Release |
| 111 Same site as #79 | 10.9_65 / E | Ponders Collision Center 12424 Pacific Hwy Southwest Bay A Lakewood WA | Site ID# 31842252 Listing: Haz Waste Gen (I) Release: No documented releases. 2007 Report: RCRA-SQG, FINDS, WA Manifest, UST, ICR, SPILLS | Next to rail alignment. | X |
| 112 | 10.8_60 / E | Century 21 Fac Storage 12331 Pacific Hwy Southwest Lakewood | Site ID# 28889393 Listing: Haz Waste Gen (I) Release: No documented releases. | Away from rail alignment. | |
| 113 Same address as #107 | 11.0 / E | Rainier Lighting & Electric Supply Inc. 12511 Pacific Hwy Southwest Lakewood | Site ID# 37877452 Listings: Haz Waste Transfer Facility (I); Haz Waste Manag Activity (A); RSVP (A) Release: No documented releases. | Location uncertain. Odd numbered address indicates site on east side of Pacific Hwy. | |
| 114 | 11.0 / E | Plaza Cleaners Lakewood 12509 Pacific Hwy Southwest Lakewood | Site ID# 4383697 Listings: Haz Waste Gen (A) Release: No documented releases. | Away from rail alignment. | |
| 115 | 11.3_86 / E | AAA Loans & Gun Shop 12831 Pacific Hwy Southwest Lakewood | Site ID# 15057 / Cleanup Site ID# 11499 Listing: LUST (A) Release: Soil is contaminated with Benzene. ISIS: 3 leaded USTs, two closed in place and 1 removed. | Away from rail alignment. | Documented Release |
| 116 | 11.3_85 / E | Ponders Auto Parts Inc. 12828 Pacific Hwy Southwest Lakewood | Site ID# 1289 Listings: Haz Waste Gen (I); UST (I) SCS (A); LSC (I) Release: Soil is contaminated with petroleum and metals, and is suspected to be contaminated with Halogenated organics. Groundwater contamination is suspected for all three chemicals. | Next to rail alignment. | Documented Release |
| 117 | 11.3 / E | Peter Hungate Property 12811 Pacific Hwy Southwest Lakewood | Site ID# 8506936 Listing: UST (I) Release: No documented releases. ISIS: 3 USTs removed. | Away from rail alignment. | |
| 118 | 11.2_79 / E | Interchecks Inc 12715 Pacific Hwy Southwest Lakewood | Site ID# 39885623 Listing: Haz Waste Gen (I) Release: No documented releases. | Away from rail alignment. | |
| 119 | 11.2_79 / E | Lakewood Lumber Co Inc | Site ID# 55349739 Listing: UST (I) Release: No documented releases. | Next to rail alignment. | X |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|---|---|---|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 120 | ? | Titlow WA Line Seg 52 Print 469 3 rd Sub Pac Div MP 9.6 Tacoma | Site ID# 21411589 Listing: UST (I) Release: No documented releases. <i>Note:</i> Unable to map since there is no valid address. Ecology FS Atlas map shows the site on the north side of Glenwood Avenue (north of rail). | Unable to locate/map. See Note. | |
| 121 | ? | Tacoma Print 4784 LS51 3 rd Sub Tacoma | Site ID# 15857747 Listing: UST (I) Release: No documented releases. <i>Note:</i> Unable to map since there is no valid address. Ecology FS Atlas map shows the site on the north side of Glenwood Avenue (north of rail). | Unable to locate/map. See Note. | |
| 122 | 11.6_102 / W | TOSCO 0314830138 13101 Gravelly Lake Drive Lakewood | Site ID# 13613227 Listings: UST (A); Haz Waste Gen (I); Haz Waste Manag. (I) Release: No documented releases. | Near rail alignment, hydraulically down gradient. | |
| 123 | 11.6_102 / W | ARCO 4490 13005 Gravelly Lake Drive Lakewood | Site ID# 78724445 Listings: UST (A); Haz Waste Gen (I); Haz Waste Manag. (I) Release: No documented releases. | Away from rail alignment. | |
| 124 | 13.1_180 / W | Tillicum Automotive 14612 Union Avenue Southwest Lakewood | Site ID# 18191 Listings: SCS (A); Haz Waste Generator (A) and RSVP Release: Soils is contaminated with metals. Soil and groundwater is suspected to be contaminated with metals, halogenated organics, halogenated solvents and petroleum. | Near to, but away from the alignment. West of Union Avenue Southwest | Documented Release |
| 125 Same addresses as #132 and #133 | 13.6_208 / W | Gibbon and Sons Co Inc 15408 Union Avenue Southwest Tillicum | Site ID# 84835238 Listing: Haz Waste Gen (I); Emergency Haz Chem Rpt Release: No documented releases. | Away from rail alignment. West of Union Avenue Southwest | |
| 126 | 13.5_200 / W | BDU Cleaners 15206 Union Avenue Southwest No 3 Lakewood | Site ID# 1691284 Listing: Haz Waste Gen (I) Release: No documented releases. | Away from rail alignment. West of Union Avenue Southwest | |
| 127 | 13.3_190 / W | CEYS Automotive 14902 Union Avenue Southwest Lakewood | Site ID# 56361682 Listing: UST (I) Release: No documented releases. | Away from rail alignment. West of Union Avenue Southwest | |
| 128 | 13.9_222 / E | Camp Murray Bldg 26 No Address Fort Lewis | Site ID# 13890 Listing: UST (A) Release: No documented releases. | Away from rail alignment. East of I-5. | |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|---|--|---|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 129 | 13.5 / E | US Army Fort Lewis Multi Site No Address Fort Lewis | Site ID# 229 Listing: SCS (I) Release: Soil is contaminated with "Base/Neutral/Acid Organics" and Dioxin/Dibenzofuran Compounds. Soil was remediated for BCBs and is suspected to also be contaminated with pesticides. Groundwater is contaminated with "Conventional Inorganic Contaminants and Halogenated Organics and Radioactive wastes. Groundwater is suspected of PCBs. Ecology has not ranked the site. And received a No Further Action in May of 1994, although the site status still shows "awaiting cleanup." SIC codes for SMALL ARMS AMMUNITION and Landfill | Away from rail alignment. East of I-5, near intersection of Perry Avenue and Tacoma Drive. | Documented Release |
| 130 / 134 | 17.4 / E | US Army Fort Lewis Auto Crafts SH Westway Street Bldg 4043 Fort Lewis | Site ID# 16645941 Listing: Haz Waste Gen Release: No documented releases. | Away from rail alignment. East of I-5 and Barksdale interchange. East of W. 5 th Street. | |
| 131 | 13.7_210 / W | Tillicum Mobile 8202 Berkeley Avenue Southwest Lakewood | Site ID# 15568657 Listings: UST (I) and LUST (A) Release: Petroleum contaminated groundwater. | Away from rail alignment. West of Union Avenue Southwest | Documented Release |
| 132 Same address as #125 and #133 | 13.6_208 / W | Mooses Tillicum Auto Tech 15408 Union Avenue Southwest Lakewood | Site ID# 22655 Listing: Local Source Control Release: No documented releases. | Away from rail alignment. West of Union Avenue Southwest | |
| 133 Same address as #125 and #132 | 13.6_208 / W | Tillicum Chevron 15408 Union Avenue Southwest Lakewood | Site ID# 57297299 Listings: UST (A); LUST (A) ; VCP (A) Release: Petroleum contaminated soil and groundwater. | Away from rail alignment, West of Union Avenue Southwest | Documented Release |
| 134 / 130 | Duplicate listing: See Map ID #130. | US Army Fort Lewis Auto Crafts SH Westway Street Bldg 4043 Fort Lewis | Site ID: 16645941 Listing: HazWaste Generator Release: No documented releases. Duplicate Listing to Map ID #134. | Duplicate listing: See Map ID #130. | |
| 135 | 14.3 / W | WA Army National Guard Camp Murray AKA: WA NG Org Maint Shop 1 Camp Murray Army National Guard | Site ID#: 91742929 Listings: Enforcement Final , HazWaste Generator (x3) Release: No documented releases, however there was a regulatory action to correct an identified problem on site. SIC code: National Security | Away from rail alignment. West side of 41 st Division Way. | Documented Release |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|--|--|---|---|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas |
| 136 | ?14.3_244 / W | Camp Murray Swale Camp Murray Bldg No 36 | Site ID# 57555918 Listings: VCP Release: Soil is contaminated petroleum and metals. Groundwater is contaminated with Polynuclear Aromatic Hydrocarbons, and is suspected to be contaminated with petroleum and metals. The site has an Environmental Covenant. SIC: None. | Located in between "Field Artillery Drive" and "Air Defense Lane" | Documented Release |
| 137 | 16.2 / W | USDOE Ft Lewis Pilot Plt BLDG NO 7901 Fort Lewis | Site ID# 27356778 Listing: HazWaste Generator Release: No documented releases. | Significant distance away from rail alignment. Located west of Plant Road. | |
| 138 | 14.4_249 / W | AT&T Wireless Camp Murray Bldg 57 SEC | Site ID# 9754975 Listing: HazWaste Generator Release: No documented releases. SIC Code: Radiotelephone Communications | Immediately adjacent to rail alignment. | x |
| 139 | 17.1 / E | JBLM Tank Group 1 Fort Lewis | Site ID# 2983 Listing: SCS (A) Release: Unable to obtain site specific information from Ecology's databases. | Away from rail alignment. East of I-5, near intersection of Lewis Lane and West Way. | Documented Release |
| 140 | 17.4 / W | DuPont City Municipal Southwest 303 Barksdale Avenue DuPont | Site ID# 20675 Listing: Municipal Southwest Phase II – Western WA Release: No documented releases. | Far away from rail alignment. | |
| 141 | 17.4_405 / W | DuPont Grocery 100 Barksdale Avenue DuPont | Site ID# 17157522 Listing: UST (A) Release: No documented releases. | Away from rail alignment. | |
| 142 | 17.8_428 / W | State Farm Insurance DuPont 1000 Wilmington Drive DuPont | Site ID# 1669191 Listings: Haz Waste Gen (I); Haz Waste Manag (I) Release: No documented releases. | Away from rail alignment. | |
| 143 | 17.4 / W | Chevron 94653 103 Barksdale Avenue DuPont | Site ID# 23495977 Listing: UST (I) Release: No documented releases. ISIS: 6 tanks (installed in 1964) were removed. Contents included leaded, unleaded and used waste oil. | Near to rail alignment. Hydraulically down gradient. | |
| 144 | 17.2_396 / W | Hampton Inn & Suites 800 Station Drive DuPont | Sited ID# 5271 Listing: Construction Southwest GP Release: No documented releases. | Away from rail alignment. | |

Attachment C-3. Regulatory Record Search – Soil Disturbance Areas

| 2012 Ecology Facility Site Atlas Regulatory Record Search for Soil Disturbance Areas Coverage: RMP 10.4 to 21.5 / Bridgeport Way in Tacoma to Nisqually South Terminus | | | | | |
|---|---|---|---|---|---|
| Map ID# | Rail Mile Post (approx.) / East or West side of tracks | Site Name/Address | Ecology Facility Site ID#, Database Listing & Release Information | Notes | Sites of Concern Superfund Documented Release <small>x = Regulated site on or immediately adjacent to Freighthouse Square or proposed parking areas</small> |
| 145 | 18.4 / W | I-5 Center Drive Interchange Improvements I-5 and Center Drive DuPont | Site ID# 46 Listing: Construction Southwest GP Release: No documented releases. | Away from rail alignment. | |
| 146 | 18.1 / E | WADOT South DuPont Interchange I-5 MP 118 | Site ID# 91112255 Listing: Haz Waste Gen (I) Release: No documented releases. | Along rail alignment to the east. | |
| 147 | NA | AT&T Wireless Mounts Rd 17290 Mounts Rd Southwest DuPont | Site ID# 6519638 Listing: Emergency Haz Chem Rpt Release: No documented releases. | Unable to confirm location. Results of Google, Bing and Ecology map are all different. Still appears to be sufficiently away from rail alignment. | |
| 148 | 24.6 | Union Pacific Rail Road Nisqually MP 24.6 Lines 1 and 2 | Site ID# 9975937 Listing: Enforcement Release: No documented releases. | Rail MP 24.6 is beyond Project end point of Rail MP 21.5. | |
| 149 | | BN Railroad Overpass 4181 A MP 0.76 Old Pacific Hwy | Site ID# 1246395 Listing: HazWaste Generator Release: No documented releases. | | |

Attachment D – Restrictive Covenant for Freighthouse Square



200307240850 16 PGS
 07-24-2003 03:36pm \$34.00
 PIERCE COUNTY, WASHINGTON

RECEIVED

JUL 29 2003

Washington State
 Department of Ecology

Return Address:
 MR. BOB DEIGERT
 FREIGHTHOUSE SQUARE MANAGEMENT, LLC
 9138 189TH PLACE SOUTHWEST
 EDMONDS, WA 98026

| | |
|--|--|
| Document Title: RESTRICTIVE COVENANT | TICOR W-C |
| Grantor(s): WINDERS FREIGHTHOUSE LLC, TACOMA FREIGHTHOUSE LLC, WORLD FAMOUS FREIGHTHOUSE LLC, BARRY'S FREIGHTHOUSE LLC, BEA'S FREIGHTHOUSE LLC; FREIGHTHOUSE SQUARE ___ Additional Names on Page ___ of Document. | THIS IS A TRUE AND CERTIFIED COPY OF THE ORIGINAL. BY: <i>[Signature]</i> |
| Grantee(s): THE PUBLIC ___ Additional Names on Page ___ of Document. | |
| Legal Description (abbreviated: i.e. lot, block, plat or section, township range) PORTION OF BLOCK 7520, 7522, 7524, 7526, TACOMA LAND COMPANY'S FIRST ADD TO TACOMA ___ Legal Description is on Page ___ of Document. | |
| Reference Number(s) of Documents Assigned or Released: N/A ___ Additional Reference Numbers on Page ___ of Document. | |
| Assessor's Property Tax Parcel/Account Number: 2075240013, 0011, 2075220011, 2075200011, 0015 | |
| The Auditor/Recorder will rely on the information provided on this cover sheet. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein. | |

84

I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording processing requirements may cover up or otherwise obscure some part of the text of the original document.

Elissa Nevish

Signature of Requesting Party (Required for non-standard recordings only)

Gpcovst.doc rev 4/02

RESTRICTIVE COVENANT

WINDERS FREIGHTHOUSE LLC, TACOMA FREIGHTHOUSE LLC, WORLD FAMOUS
FREIGHTHOUSE LLC, BARRY'S FREIGHTHOUSE LLC, BEA'S FREIGHTHOUSE
LLC; Freighthouse Square

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by K & M Commercial Development, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following document[s]:

- Engineering Geosciences Inc., Site Remediation Report Freighthouse Square, January, 7, 1994.
- Archived Freighthouse Square file, and associated correspondence

These documents are on file at Ecology's Southwest Regional Office. They can be reviewed by appointment by calling the Southwest Regional Office Resource Person at (360) 407-6365.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of Total Petroleum Hydrocarbons as diesel and heavy oil, and lead and cadmium which

exceed the Model Toxics Control Act Method A Residential Cleanup Level(s) for Groundwater established under WAC 173-340-720.

The undersigned, Winders Freighthouse LLC, Tacoma Freighthouse LLC, Worldfamous Freighthouse LLC, Barry's Freighthouse LLC, and Bea's Freighthouse LLC, are the fee owners of real property (hereafter "Property") in the County of Pierce, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described IN ATTACHMENT A OF THIS RESTRICTIVE COVENANT AND MADE A PART HEREOF BY REFERENCE.

Winders Freighthouse LLC, Tacoma Freighthouse LLC, Worldfamous Freighthouse LLC, Barry's Freighthouse LLC, and Bea's Freighthouse LLC, make the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1. No groundwater may be taken for any use from the Property.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of

human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of groundwater containing a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples,

MODEL RESTRICTIVE COVENANT

Page 4

to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

[NAME OF PROPERTY OWNER AND DATE SIGNED]

Legal for Freight House Square.
COMMONWEALTH TITLE COMPANY
STANDARD OWNER POLICY
SCHEDULE A

Policy No.: 3013262

(Continued)

LEGAL DESCRIPTION

PARCEL A:

THE NORTHERLY 77 FEET OF THE EASTERLY 135 FEET OF BLOCK 7524, AND THE NORTHERLY 77 FEET OF BLOCK 7526, TACOMA LAND COMPANY'S FIRST ADDITION TO TACOMA, ACCORDING TO PLAT FILED FOR RECORD JULY 7, 1884 IN THE OFFICE OF THE COUNTY AUDITOR, IN PIERCE COUNTY, WASHINGTON.

TOGETHER WITH THAT PORTION OF EAST "F" STREET, VACATED BY CITY OF TACOMA ORDINANCE NOS. 3128 AND 23949, ADJOINING THE NORTHERLY 77 FEET OF SAID BLOCKS 7524 AND 7526.

EXCEPT FROM SAID BLOCK 7526, THAT PORTION APPROPRIATED BY THE CITY OF TACOMA FOR THE CONSTRUCTION AND MAINTENANCE OF A PUBLIC STREET, BY DECREE ENTERED SEPTEMBER 12, 1928 IN PIERCE COUNTY SUPERIOR COURT CAUSE NO. 61287, AND BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID BLOCK 7526; THENCE NORTHERLY ALONG THE EAST LINE OF SAID BLOCK, A DISTANCE OF 119.73 FEET; THENCE IN A SOUTHWESTERLY DIRECTION ON A CURVE TO THE RIGHT HAVING A RADIUS OF 538 FEET AND CONCENTRIC WITH A CURVE HAVING A RADIUS OF 573 FEET, WHOSE TANGENT AT A POINT ON THE CENTER LINE OF EAST "G" STREET, 36.80 FEET SOUTH OF THE CENTER LINE OF EAST 25TH STREET, MAKING AN ANGLE OF 14°22' TO THE SOUTHWEST WITH THE SAID CENTER LINE OF EAST "G" STREET, A DISTANCE OF 130.04 FEET TO A POINT OF COMPOUND CURVE; THENCE CONTINUING SOUTHWESTERLY ON A CURVE TO THE RIGHT HAVING A RADIUS OF 283 FEET, A DISTANCE OF 1.32 FEET TO A POINT ON THE SOUTH LINE OF SAID BLOCK 7526, SAID POINT BEING 2.84 FEET WEST OF THE SOUTHEAST CORNER OF LOT 10, IN SAID BLOCK 7526; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID BLOCK, A DISTANCE OF 52.84 FEET TO THE PLACE OF BEGINNING.

EXCEPT ALL TRACK MATERIAL, INCLUDING, BUT NOT LIMITED TO RAILS, FASTENINGS, ANGLE BARS, TIE PLATES, TIES AND OTHER IMPROVEMENTS, AS EXCEPTED IN DEED FROM RICHARD B. OGILVIE AS TRUSTEE OF THE PROPERTY OF CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD COMPANY AND RECORDED UNDER AUDITOR'S NO. 8109020105.

PARCEL B:

THE NORTHERLY 77 FEET OF BLOCK 7522 AND 7524 OF TACOMA LAND COMPANY'S FIRST ADDITION TO TACOMA, W.T., ACCORDING TO PLAT FILED FOR RECORD JULY 7, 1884 IN THE OFFICE OF THE COUNTY AUDITOR, IN PIERCE COUNTY, WASHINGTON.

EXCEPT THE EAST 135 FEET OF SAID BLOCK 7524.

TOGETHER WITH THAT PORTION OF EAST "F" STREET ADJOINING SAID NORTHERLY 77 FEET OF BLOCKS 7522 AND 7524, VACATED BY CITY OF TACOMA ORDINANCE NOS. 3128 AND 23949.

COMMONWEALTH TITLE COMPANY

STANDARD OWNER POLICY
SCHEDULE A

Policy No.: 3013262

(Continued)

LEGAL DESCRIPTION

PARCEL C:

THE NORTHERLY 77 FEET OF BLOCK 7520, TACOMA LAND COMPANY'S FIRST ADDITION, ACCORDING TO PLAT FILED FOR RECORD JULY 7, 1884 IN THE OFFICE OF THE COUNTY AUDITOR, IN PIERCE COUNTY, WASHINGTON.

PARCEL D:

THE SOUTH 20 FEET OF THE NORTH 97 FEET OF BLOCKS 7520, 7522, 7524 AND 7526, IN THE TACOMA LAND COMPANY'S FIRST ADDITION TO TACOMA, W.T., ACCORDING TO PLAT FILED FOR RECORD JULY 7, 1884, IN THE OFFICE OF THE COUNTY AUDITOR, IN PIERCE COUNTY, WASHINGTON.

EXCEPT THAT PORTION OF LOTS 11 AND 12, SAID BLOCK 7526 TAKEN BY THE CITY OF TACOMA BY DECREE OF APPROPRIATION ENTERED SEPTEMBER 12, 1928 IN PIERCE COUNTY SUPERIOR COURT CASE NO. 61287.

Notorized signature attachment to Dept of Ecology Restrictive Covenant:

Signed *Glen R. Winders, Trustee* Date 7/22/03
Winders Freighthouse, LLC
Glen R. & Elizabeth L. Winders Trust, Member
By Glen R. Winders, Trustee

STATE OF WASHINGTON)
) ss.
COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that GLEN R. WINDERS is the person who appeared before me and said person acknowledges that he signed this instrument and acknowledges it to be his free and voluntary act for purposes mentioned in this instrument.

Dated July 22, 2003

Antonia M. Fahey
Notary Public in and for the State of Washington
Residing in Kingston
My appointment expires : 4-02-06



RESTRICTIVE COVENANT

Page 4

may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

John R. Griffith sole member Barry's Freight House, LLC

[NAME OF PROPERTY OWNER AND DATE SIGNED]

Patricia A. Griffith SOLE MEMBER Barry's Freight House, LLC

[NAME OF PROPERTY OWNER AND DATE SIGNED]

[NAME OF PROPERTY OWNER AND DATE SIGNED]

03/04/03

NOTARIAL ACKNOWLEDGMENT

STATE OF WASHINGTON)
County of KING) ss.

On this 22nd day of July 2005, before me personally appeared Beatrice A. Griffiths and _____

_____ to me known to be the SOLE MEMBER
OF Bea's Freighthouse, LLC that executed the within and foregoi

instrument, and acknowledged said instrument to be the free and voluntary act and deed of said LLC, for
the uses and purposes therein mentioned, and on oath stated that they were authorized to execute sa
instrument e

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first abo
written.

Sue Butka

(Notarial Seal) Notary Public in and for the State of Washington residing at Ring A.

June 19, 2005



NOTARIAL ACKNOWLEDGMENT

STATE OF WASHINGTON)
County of KING) ss.

On this 22nd day of JULY 2003, before me personally appeared _____
JOHN E. GRIFFITHS and _____

_____ to me known to be the SOLE MEMBER OF
BARRY'S FREIGHT HOUSE, LLC, that executed the within and foregoing
instrument, and acknowledged said instrument to be the free and voluntary act and deed of said LHC, for
the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said
instrument >

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above
written.

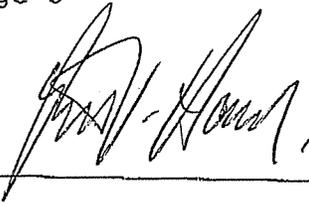
Sue Butka

(Notarial Seal) Notary Public in and for the State of Washington

residing at Kingd

June 19, 2005



 WORLD FAMOUS FREIGHT HOUSE
SOLE MEMBER 7/21/03

[NAME OF PROPERTY OWNER AND DATE SIGNED]

 TACOMA FREIGHT HOUSE LLC
SOLE MEMBER 7/24/03

[NAME OF PROPERTY OWNER AND DATE SIGNED]

[NAME OF PROPERTY OWNER AND DATE SIGNED]

[NAME OF PROPERTY OWNER AND DATE SIGNED]

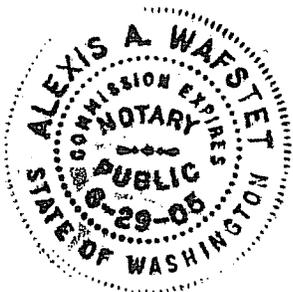
[NOTE: The Property Owners must have this Restrictive Covenant
notarized.]

Notary Page

State of Washington }
County of Snohomish } ss.

On this 21st day of July, 2003, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Robert V. Hardy, to me known to be the Sole Member of World Famous Freighthouse LLC, the Limited Liability Corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned and on oath stated that they were authorized to execute the said instrument and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year first above written.



Alexis A. Wafstet
Notary Public in and for the State of Washington
Residing at Everett
My appointment expires: June 29, 2005

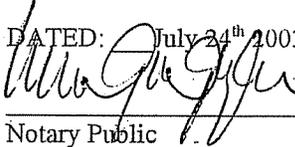
STATE OF WASHINGTON

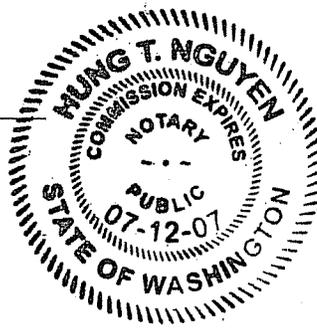
COUNTY OF PIERCE

I certify that I know or have satisfactory evidence that ROBERT DEIGERT, SOLE MEMBER OF THE TACOMA FREIGHTHOUSE LLC the person who appeared before me, and said person acknowledged that HE signed this instrument, on

oath stated that HE IS authorized to execute the instrument and acknowledged it as SOLE MEMBER OF THE TACOMA FREIGHTHOUSE SQUARE LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: July 24th 2003


Notary Public HUNG THE NGUYEN



My appointment expires 7-12-2007

A-7 -Representative Capacity

Attachment E – Applicable Federal and State Regulations

Numerous federal, state, and local regulations and policies govern decisions concerning hazardous materials issues. A standard list of Federal and State Regulations that apply to a majority of WSDOT projects are provided below. This is not an all-inclusive list of regulations and further evaluation of applicable local regulations must be conducted for each project.

Federal Regulations

Federal laws and regulations relating to hazardous materials and wastes that affect the Project include the following:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and All Appropriate Inquiries (AAI) (40 CFR Part 312)

Section 101(35)(B)(ii) and (iii) of CERCLA and the Superfund Amendments and Reauthorization Act (SARA) define liability for hazardous waste contamination and require liable parties to take responsibility for cleanup. 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries, establishes specific regulatory requirements and standards for conducting AAI provisions necessary to qualify for certain landowner liability protections under CERCLA. The purpose of Hazardous Materials Discipline Reports is, in part, to address liability issues relating to identification of, and acquisition of previously contaminated property.

Resource Conservation and Recovery Act (RCRA)

RCRA provides requirements for handling, transportation, treatment, storage, and disposal of hazardous materials and wastes. It includes provisions for identifying and classifying hazardous materials and wastes, and through the Hazardous and Solid Waste Amendments (HSWA), creates treatment standards for specific wastes. HSWA also establishes requirements for ownership, operation, maintenance, and closure of underground storage tanks. Any removal, treatment, or transportation of contaminated soils as part of the Project would need to be conducted in compliance with RCRA.

Occupational Safety and Health Act (OSHA)

OSHA establishes requirements for site safety procedures, worker training, and worker safety and health standards for employees engaged in work related to hazardous materials. All work relating to the handling of, and potential exposure to, hazardous substances by workers while conducting activities associated with the Project must be in compliance with the relevant sections of OSHA.

Clean Water Act (CWA)

The Clean Water Act (CWA) provides for comprehensive federal regulation of all sources of water pollution. Pollution of state waters is controlled by two administrative regulations that implement Chapter 90.48 RCW, Water Pollution Control Act; Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington; and Chapter 173-200 WAC, Water Quality Standards for Groundwater of the State of Washington.

Chapter 173-201 WAC indicates that toxic substances above natural background levels would not be introduced into waters of the state if the substance would (1) singularly or cumulatively adversely affect characteristic water uses, (2) cause acute or chronic toxicity to the most sensitive biota dependent on the water, or (3) adversely affect public health. Ecology would employ or require chemical toxicity testing and biological assessments as appropriate to determine compliance with the above-mentioned requirements. WAC 173-201A-160 lists the primary means for controlling municipal, commercial, and industrial waste discharges through the issuance of waste disposal permits.

Several permit programs have been established to address the potential of construction projects that may introduce hazardous substances to surface waters, including wetlands. The State Water Discharge Permit (WAC 173-216) program includes a variety of exemptions, most of which relate to discharges that are permitted under a National Pollution Discharge Elimination System (NPDES) permit or are otherwise authorized by a publicly owned treatment works (POTW) with an authorized pretreatment program. This regulation may apply to stormwater detention basins planned for the Project if the water were to contain unacceptable concentrations of polluting materials. The NPDES General Stormwater Permit for Construction Activities requires the development and implementation of a Stormwater Pollution Prevention Plan.

National Environmental Policy Act (NEPA)

NEPA requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making. If the

Project is partially funded by the Federal Highway Administration, NEPA compliance is likely to be required. One of the major elements addressed in a NEPA assessment is environmental health. Assessment of effects associated with hazardous materials and waste is a component of the environmental health evaluation.

Endangered Species Act (ESA)

ESA regulates a wide range of activities affecting plants and animals designated as “endangered” or “threatened.” The ESA states that it is unlawful to “take” any animal listed as an endangered species. ESA lists “Endangered” animals or plants that are in danger of being extinct. ESA broadly defines a “take” to include, “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect,” or an attempt to engage in such conduct. Chinook salmon, bull trout and the bald eagle are listed as threatened under the federal ESA and live within the Green/Duwamish Watershed and Central Puget Sound Watershed. These watersheds extend from the Cascade Mountains to Puget Sound. In Federal Way, roughly the area north of South 300th Street and east of Pacific Highway drains into the Green River. Steel Lake, Easter Lake, Redondo Creek and Cold Creek drain directly to Puget Sound. The southern part of the city is in the Puyallup River Watershed. In Federal Way, the Hylebos Creek Watershed is the major drainage system within the Puyallup River Watershed. Salmon habitat restoration activities are currently underway in Federal Way.

National Emission Standards for Hazardous Air Pollutants (NESHAP) (Code of Federal Regulations, Title 40, Volume 5, Parts 61-71)

The USEPA’s rules concerning the removal and disposal of asbestos-containing materials (ACM) were issued under NESHAP. NESHAP requires a thorough inspection for friable and non-friable ACM within a structure prior to demolition activities. An accredited inspector as required by the Asbestos Hazard Emergency Response Act (AHERA) must conduct all inspections. The NESHAP regulation also includes specific notification, work practice, packaging, labeling, and disposal requirements.

The Puget Sound Clean Air Agency (PSCAA) requires that a notice of intent be submitted prior to beginning any work on an asbestos demolition. The only exception is asbestos projects involving less than 48 square feet and the removal of non-friable asbestos containing roofing material. An AHERA building inspector or competent person must make the determination if it is non-friable material. There is a notification waiting period and fee that would need to be considered prior to planning any abatement work. Asbestos removed from buildings prior to demolition must be disposed in a landfill permitted to receive ACM.

State Regulations

Washington State implements many of the federal statutes pertaining to hazardous materials and wastes along with its own, often more stringent, laws and regulations. These requirements, listed below, take precedence over all other laws for governing business and operations within the state.

Model Toxics Control Act (MTCA) Regulations (WAC 173-340)

WAC 173-340 implements MTCA, RCW 70.105D. Several administrative rules include strict requirements for site discovery and reporting, site assessments, and hazardous site listing. This regulation defines standard methods used to assess whether a site is contaminated or clean. An overview of the cleanup standards is detailed in WAC 173-340-700, and groundwater and soil cleanup standards are listed in WAC 173-340-720 and WAC 173-340-740, respectively. WAC 173-340-450 sets forth the requirements for addressing Underground Storage Tanks (USTs).

MTCA would apply to any site identified with environmental contamination that may pose a threat to human health and/or the environment during this Project. MTCA establishes the acceptable cleanup limits for contaminated media. Cleanups of contaminated sites are likely to be accomplished as independent actions, with technical review provided by Ecology on an as-needed basis as provided for under MTCA.

Dangerous Waste Regulations (WAC 173-303)

WAC 173-303 implements RCRA and the Hazardous Waste Management Act, RCW 70.105. This provides for waste identification procedures unique to Washington State. Waste designation procedures are the most likely portion of this regulation that would affect the Project. Detailed requirements for forms and rules related to manifesting and transporting of hazardous waste are included. As stated above, any handling, treatment, or transport of hazardous waste associated with the Project would be required to be in compliance with RCRA and also with Washington's Dangerous Waste Regulations and Hazardous Waste Management Act. Contaminated materials generated during construction, including soil, water, and debris, would need to be properly designated before disposal. WAC 173-303-070 through WAC 173-303-110 includes the specific regulations that identify dangerous waste characteristics and criteria. In addition, wastes generated by the contractor during construction would need to be properly designated. The requirements for generators of dangerous waste are included in WAC 173-303-170 through WAC 173-303-230. A transporter of dangerous waste must comply with the procedures listed in WAC 173-303-240 through WAC 173-303-250.

WAC 173-303-145 lists the reporting requirements for spills and discharges into the environment, except when otherwise permitted under

state or federal law. This section of the WAC applies “when any dangerous waste or hazardous substance is intentionally or accidentally spilled or discharged into the environment such that human health or the environment is threatened, regardless of the quantity of dangerous waste or hazardous substance.” This portion of the regulation also details the required procedures for notification and minimization should a spill occur on site.

Solid (Non-Dangerous) Waste Disposal (RCW 70.95, WAC 173-304)

Under the State Solid Waste Management Act, RCW 70.95 states that primary responsibility for managing solid waste is assigned to local government. The state, however, is responsible for assuring the establishment of effective local programs throughout the state.

The local jurisdiction’s Health Department regulates the handling and disposal of solid waste. Identifying the appropriate waste disposal facility is the most likely the portion of local solid waste regulation that could impact the Project. The local Health Department determines whether a waste material is acceptable at one or more of the public and private solid waste facilities in the county. In some cases, testing may be required prior to disposal. Even waste that is being shipped to a disposal facility out of the county, and soil treatment facilities, falls under the jurisdiction of the local Health Department.

WAC 173-304 lists the Minimum Functional Standards for Solid Waste Handling. WAC 173-304-200 designates the on-site containerized storage, collection, and transportation standards for solid waste. The regulations apply to all persons storing containerized solid waste that is generated on site. Revisions are anticipated for WAC 173-304 and the final revised rules should be reviewed prior to the commencement of construction. The updated solid waste rule is likely to include new provisions for demolitions and inert waste streams.

Water Pollution Control Act

RCW 90.48 implements two administrative regulations that control pollution in state waters. Water Quality Standards for Surface Waters of the State of Washington, WAC 173-201A, establishes standards for toxic substances, conventional parameters (i.e., pH, dissolved oxygen, temperature), and aesthetic values for marine and fresh surface waters. Water Quality Standards for Ground Water of the State of Washington contain similar regulations for groundwater, with special emphasis on radionuclides and carcinogens, due to potability issues. Any construction or operational activities associated with the Project must comply with Washington’s water quality standards. Wastewater Discharges to Surface Waters, WAC 173-220 regulates discharges to surface water from construction projects. Under this program, it is unlawful to discharge

polluting matter to surface waters without a National Pollutant Discharge Elimination System (NPDES) permit. A general NPDES permit for construction would be required for the Project. Wastewater Discharges to the Ground, WAC 173-216, regulates discharge of stormwater to detention basins if this water contains unacceptable concentrations of polluting matter. The Project would likely be exempt from the requirements of this regulation if an NPDES Stormwater Permit for construction is acquired. This should be verified during the permitting process conducted for the Project.

Water Quality Standards for Surface Waters (Chapter 173-201A WAC)

WAC 173-201A-040 is the section of the Water Quality Standards that specifically deals with toxic substances within surface waters of the state. The WAC indicates that toxic substances, above natural background levels, shall not be introduced into waters of the state if: 1) The substance would singularly or cumulatively adversely affect characteristic water uses, 2) Cause acute or chronic toxicity to the most sensitive biota dependent on the water, or 3) Adversely affect public health. Ecology shall employ or require chemical toxicity testing and biological assessments as appropriate to determine compliance with the above-mentioned requirements. WAC 173-201A-160 lists the primary means for controlling municipal, commercial, and industrial waste discharges through the issuance of waste disposal permits.

Wastewater Discharges to Ground (WAC 173-216)

The State Water Discharge Permit program includes a variety of exemptions, most of which relate to discharges that are permitted under an National Pollution Discharge Elimination System (NPDES) permit or are otherwise authorized by a publicly owned treatment works (POTW) with an authorized pretreatment program. This regulation may apply to stormwater detention basins planned on the Project if the water contains unacceptable concentrations of polluting materials.

Underground Utilities (RCW 19.122)

There are multiple operating utilities that exist within the Project footprint. RCW 19.122 states that an excavator shall provide notice of the scheduled commencement of excavation to all owners of underground facilities through a one-number locator service. The RCW also states that all owners of underground facilities within a one-number locator service shall subscribe to the service. Notice needs to be communicated to the locator service no less than two days and no more than 10 days prior to the commencement of excavation activities. If the excavator discovers utilities that were not identified or damages a utility, the excavator would stop work and notify the locator service and the owner of the utility service if

possible. If the damage causes an emergency situation, the excavator shall also alert the appropriate public health agencies and take all steps necessary to ensure public safety. A failure to notify the locator service of damage to a hazardous liquid or gas pipeline is subject to a civil penalty of not more than \$10,000 for each violation. Any excavator who willfully or maliciously damages a field-marked underground facility shall be liable for triple the costs incurred in repairing or relocating the facility.

Underground Storage Tank Statute and Regulations (RCW 90.76, WAC 173-360)

The purpose of RCW 90.76 and WAC 173-360 regulations are to address the serious threat posed to human health and the environment by leaking underground storage tank systems (LUSTS) containing petroleum and other regulated substances. The regulations describe the enforcement, notification, and reporting requirements for LUSTS. The regulations also detail the performance standards and operating and closure requirements.

Washington Industrial Safety and Health Act (WISHA)

RCW 49.17 implements the Occupational Health Standards WAC 296-62. RCW 49.17 also implements Safety Standards for Construction Work WAC 296-155, which contains the Safety Standards for Asbestos and Encapsulation WAC 296-65. These safety requirements apply to all construction activities and the regulations are enforced by the Washington State Department of Labor and Industries (L&I).

The standards include rules covering operations at known hazardous waste sites and initial investigations conducted at sites before the presence or absence of hazardous substances has been determined. Also included are rules on site assessment and control, training, protective equipment, and emergency response. WAC 296-155 requires employers to inform their workers of the potentially hazardous conditions of the workplace. When WSDOT informs the contractor of these conditions, the contractor is required to train workers to recognize hazardous conditions in the workplace and train them how to respond to and report such conditions. It is important that WSDOT inform the contractor through the Contract and/or Special Provisions so that the contractor is aware and responsible to prepare his employees to appropriately and safely handle encounters of hazardous materials with minimal delays.

The safety requirements also provide specific procedures for work with asbestos-containing materials (ACM) and lead-based paint (LBP). L&I regulate asbestos and LBP removal and encapsulation (WAC 296-62 Part I-1 and 296-155). All contractors must be certified in asbestos and LBP removal, and their supervisors and laborers must be trained. For asbestos, L&I and the Puget Sound Clean Air Agency (PSCAA) must be notified of any asbestos removal. Fees also must be paid, calculated on the linear or

square amount of material removed. ACM and LBP must be disposed of in a specially permitted landfill. This includes disposable clothing, respirator filters, and equipment, as well as the ACM and LBP itself. The use of landfills results in an irreversible and irretrievable commitment of landfill space. Liability for asbestos and LBP disposal remains with WSDOT indefinitely.

Hazardous Waste Operations and Treatment, Storage, and Disposal Facilities (WAC 296-62 Part P, RCW 49.17)

WAC 296-62, Part P, includes all of the required procedures for work involving hazardous materials. Due to the possible effects indicated above for specific sites, there are sections of WAC 296-62 that are of key importance for the Project.

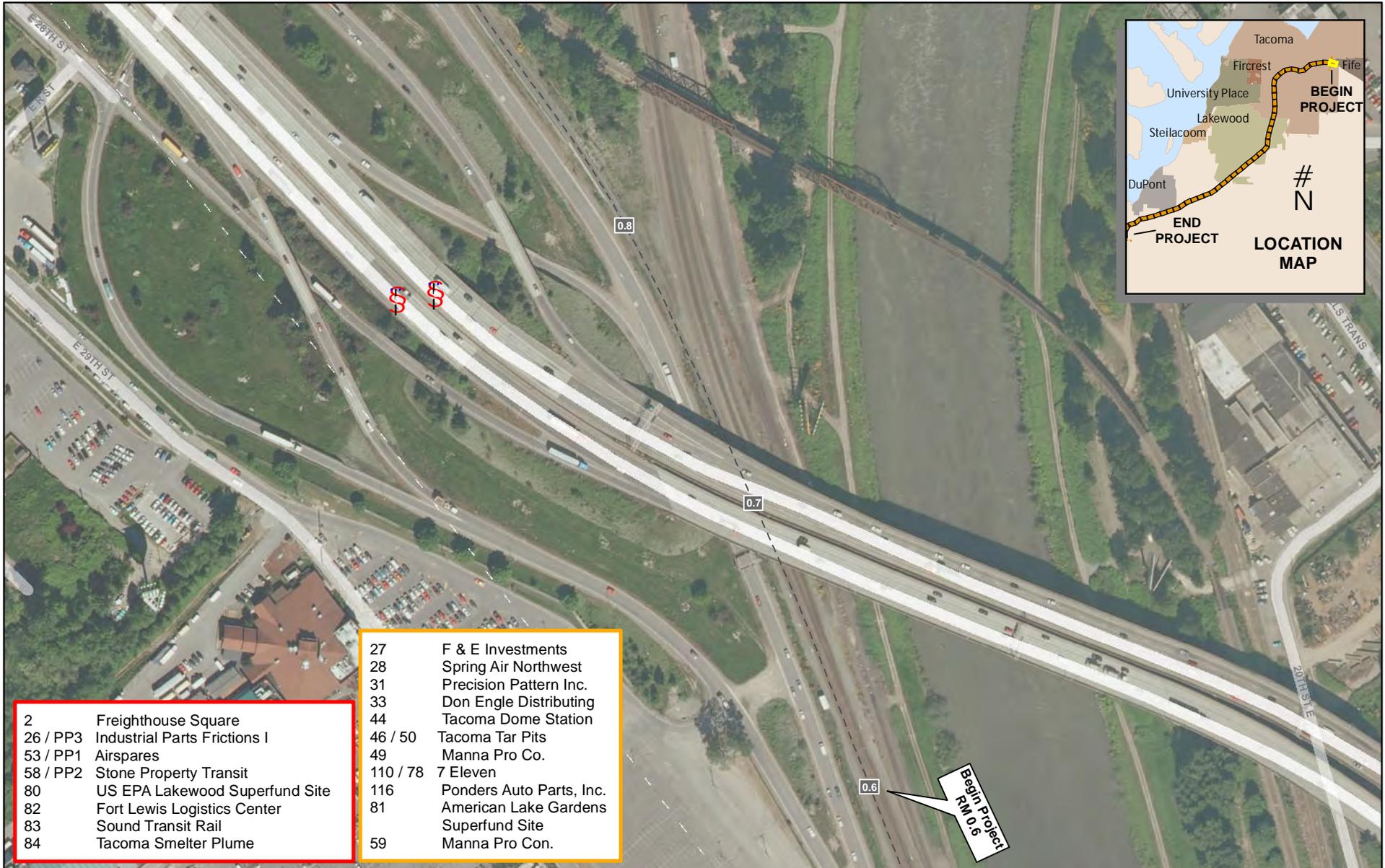
WAC 296-62, Part P, also details the requirements for handling drums and containers. Unlabeled drums and containers must be considered to contain hazardous waste and handled accordingly until the contents are positively identified and labeled. Drums and containers that cannot be moved without rupture, leakage, or spillage must be emptied into a sound container. Personal protective equipment selection protocol is outlined in WAC 296-62-30605. The training requirements for site personnel are included within multiple sections of Part P depending upon the designation of the contamination on site.

Safety Standards for Construction Work - Lead (WAC 296-155)

WAC 296-166 indicates that workers may not be exposed to lead at concentrations greater than 50 micrograms per cubic meter of air ($50\mu\text{g}/\text{m}^3$) averaged over an eight-hour period. WAC 296-166 also outlines the personal protective equipment that shall be given to employees as well as medical surveillance procedures that are to be implemented for exposed personnel.

General Occupational Health Standards – Asbestos (WAC 296-62 Part I-1)

WAC 296-62 requires that prior to commencement of work an owner must conduct a good faith inspection to determine whether materials to be worked on or removed contain asbestos. An accredited inspector must conduct the good faith inspection. WAC 296-62 Part I-1 requires that an employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (0.1 f/cc) of air as an eight-hour time-weighted average. Besides the permissible exposure limit, the regulation also requires appropriate respiratory protection as well as exposure assessment and monitoring.



| | |
|----------|--------------------------------|
| 2 | Freighthouse Square |
| 26 / PP3 | Industrial Parts Frictions I |
| 53 / PP1 | Airspares |
| 58 / PP2 | Stone Property Transit |
| 80 | US EPA Lakewood Superfund Site |
| 82 | Fort Lewis Logistics Center |
| 83 | Sound Transit Rail |
| 84 | Tacoma Smelter Plume |

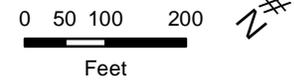
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| 27 | F & E Investments |
| 28 | Spring Air Northwest |
| 31 | Precision Pattern Inc. |
| 33 | Don Engle Distributing |
| 44 | Tacoma Dome Station |
| 46 / 50 | Tacoma Tar Pits |
| 49 | Manna Pro Co. |
| 110 / 78 | 7 Eleven |
| 116 | Ponders Auto Parts, Inc. |
| 81 | American Lake Gardens Superfund Site |
| 59 | Manna Pro Con. |

**Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern**

April 2012



| | | | |
|--|--|--|---|
| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
|--|--|--|---|



SHEET
1
OF
46

* Details shown are subject to change.

File: HazMat Footprint 04182012

Source: WSDOT; HDR Engineering, Inc. EPA

Contours are approximate and are for visualization purposes only.



- 2 Freighthouse Square
- 26 / PP3 Industrial Parts Frictions I
- 53 / PP1 Airspares
- 58 / PP2 Stone Property Transit
- 80 US EPA Lakewood Superfund Site
- 82 Fort Lewis Logistics Center
- 83 Sound Transit Rail
- 84 Tacoma Smelter Plume

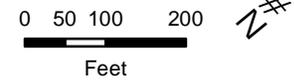
- 27 F & E Investments
- 28 Spring Air Northwest
- 31 Precision Pattern Inc.
- 33 Don Engle Distributing
- 44 Tacoma Dome Station
- 46 / 50 Tacoma Tar Pits
- 49 Manna Pro Co.
- 110 / 78 7 Eleven
- 116 Ponders Auto Parts, Inc.
- 81 American Lake Gardens Superfund Site
- 59 Manna Pro Con.

Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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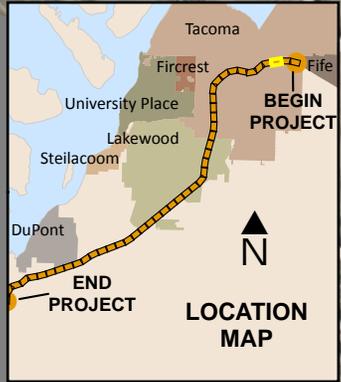
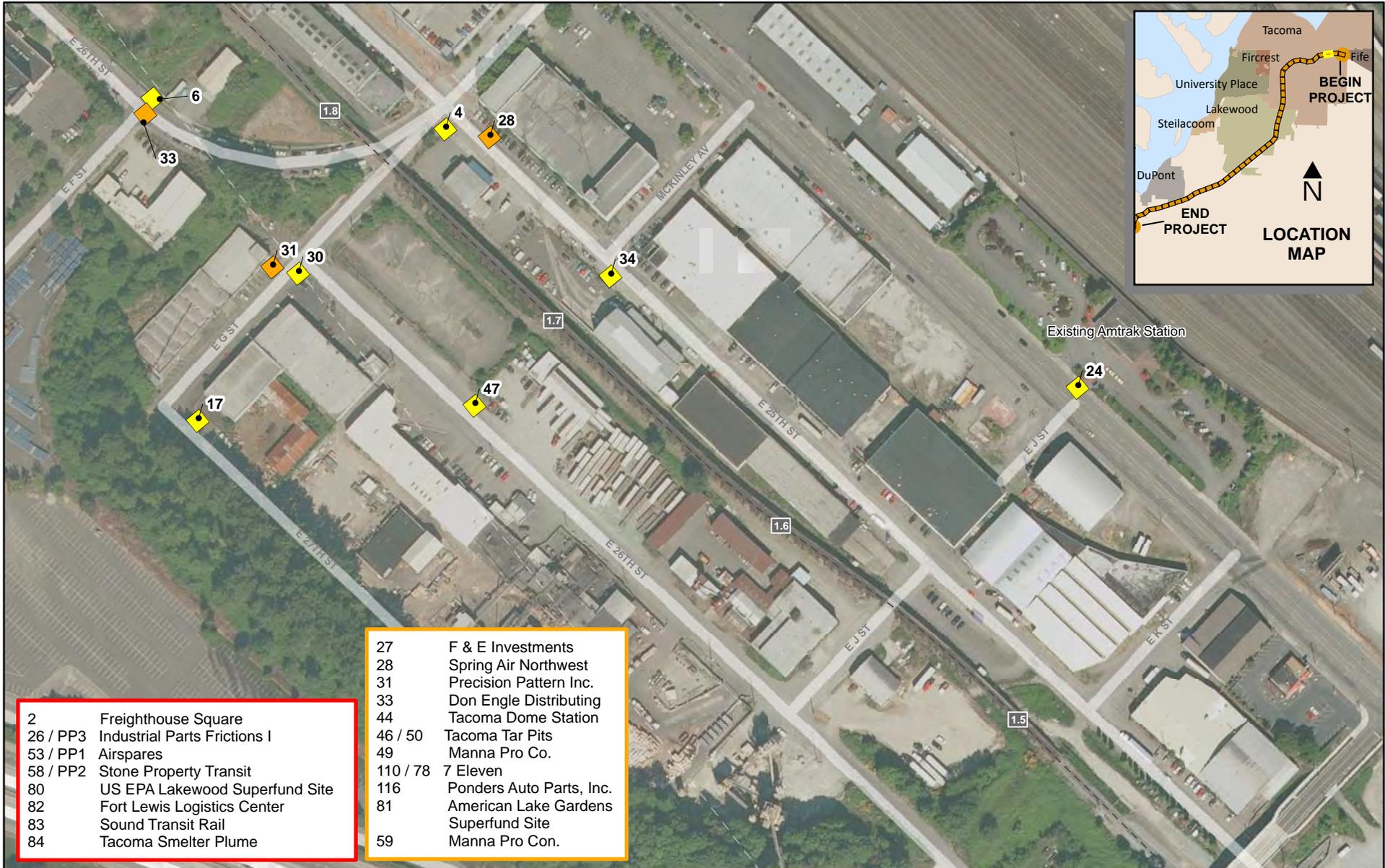
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 OF
46

* Details shown are subject to change.

File: HazMat Footprint 04182012

Source: WSDOT; HDR Engineering, Inc., EPA

Contours are approximate and are for visualization purposes only.



- 2 Freighthouse Square
- 26 / PP3 Industrial Parts Frictions I
- 53 / PP1 Airspares
- 58 / PP2 Stone Property Transit
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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Materials Sites of Concern

April 2012



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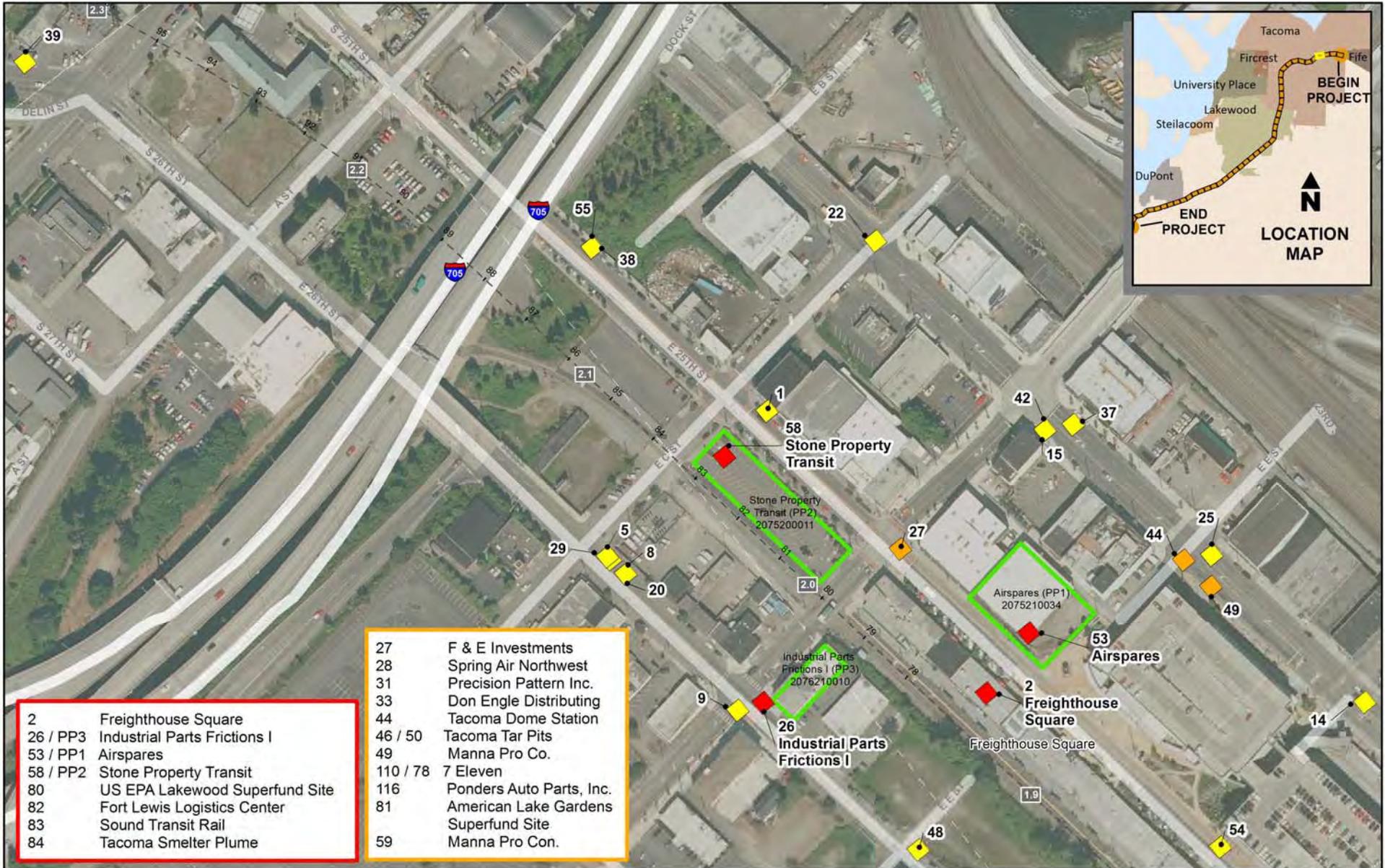


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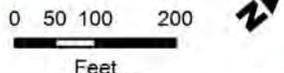
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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Materials Sites of Concern

April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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**Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern**

April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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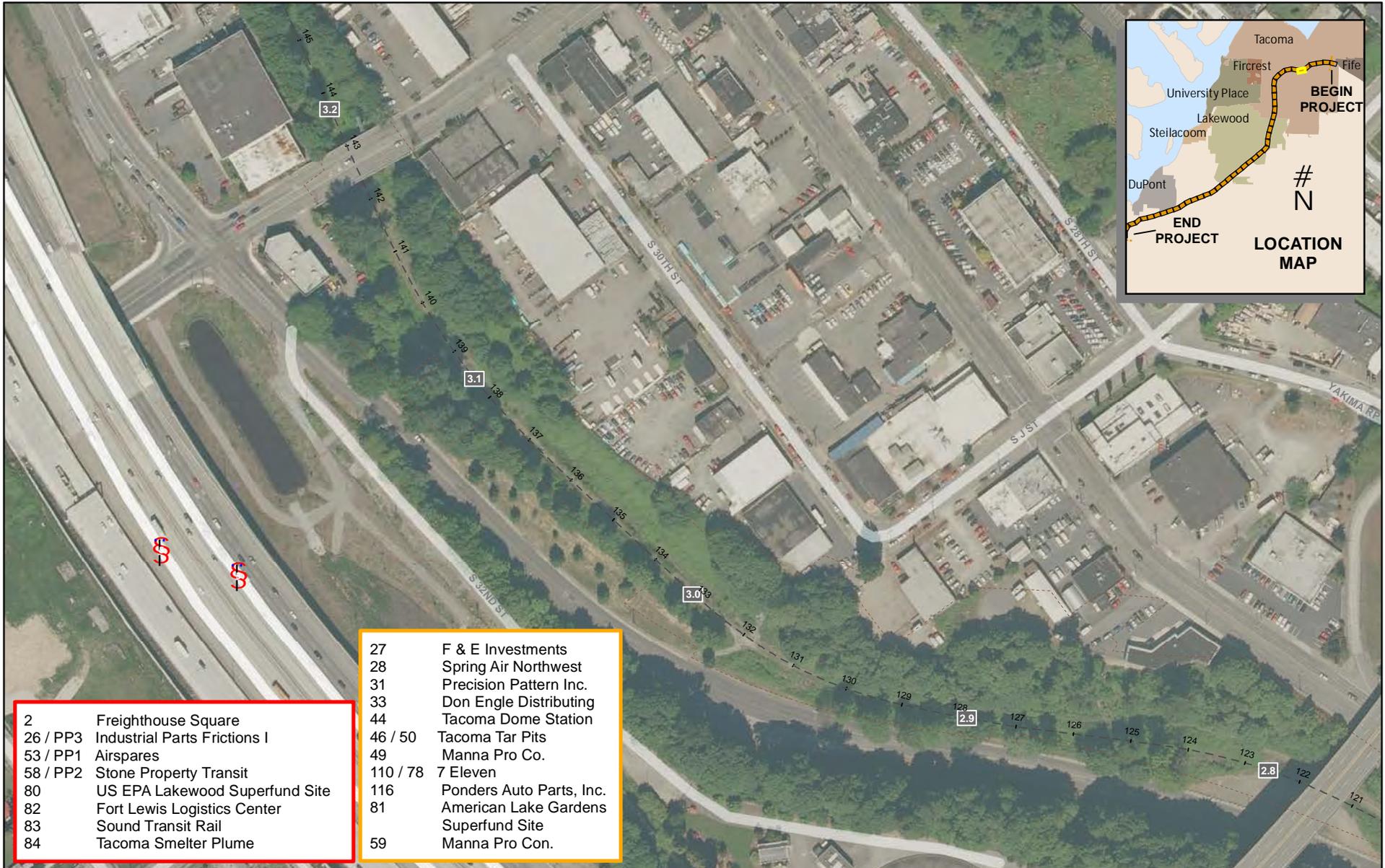
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46

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**Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern**

April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line Proposed Parking (PP) Acquisition Sites | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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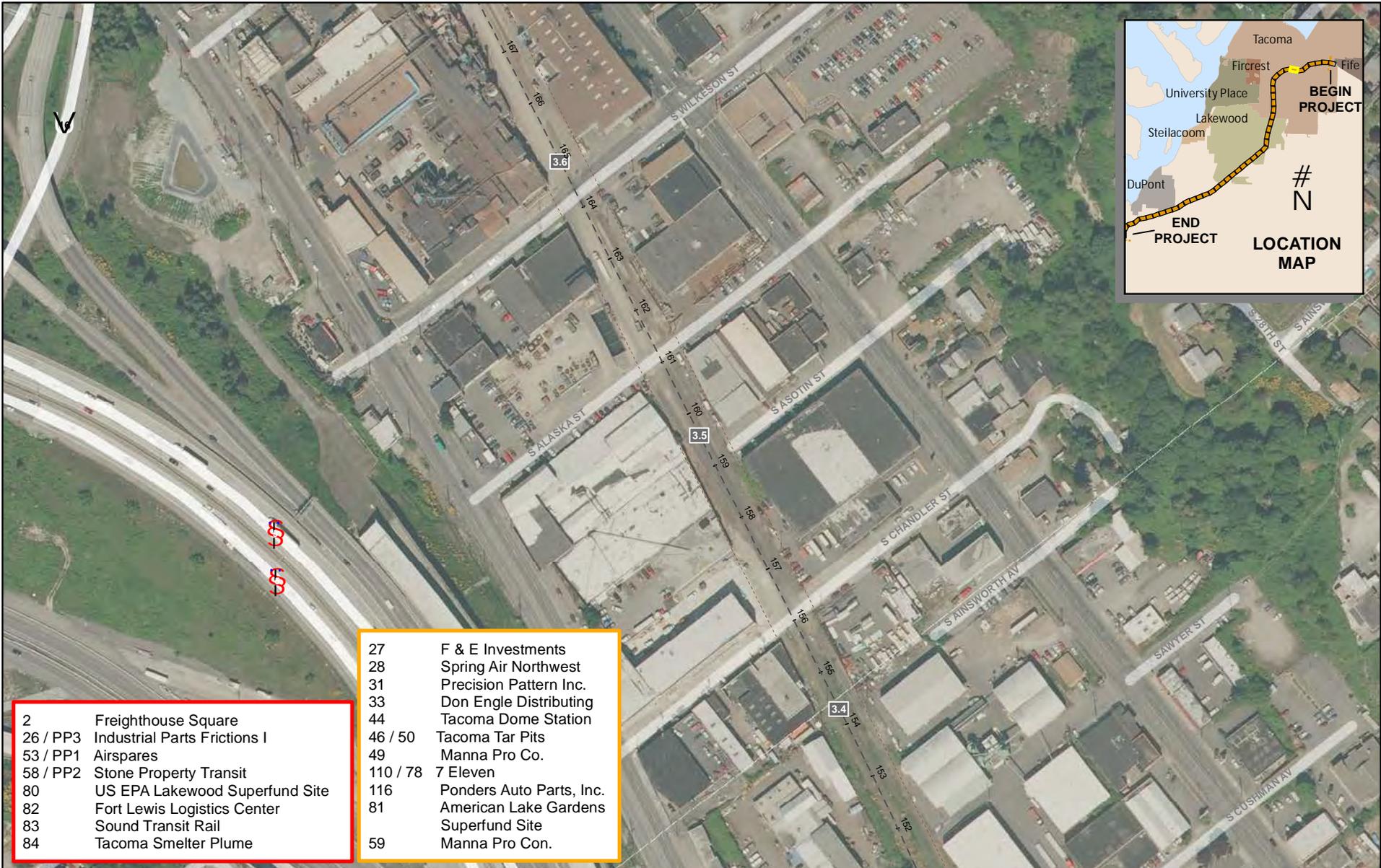
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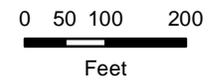
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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April 2012



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46

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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
- Railroad Centerline (proposed)
- Railroad Centerline (existing)
- Right of Way (existing)
- Cut Line
- Fill Line

- Crossing panel
- Wetland (existing)
- Clear and Grub Area
- Staging Stockpile Site
- Soil Disturbance: 2' to 5'
- Soil Disturbance: > 5'

- Site 82 - Fort Lewis Logistics Center Groundwater Plumes
- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



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46

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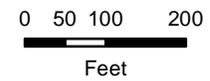
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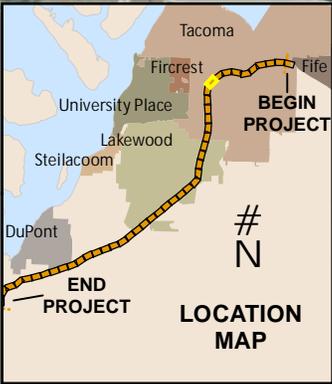
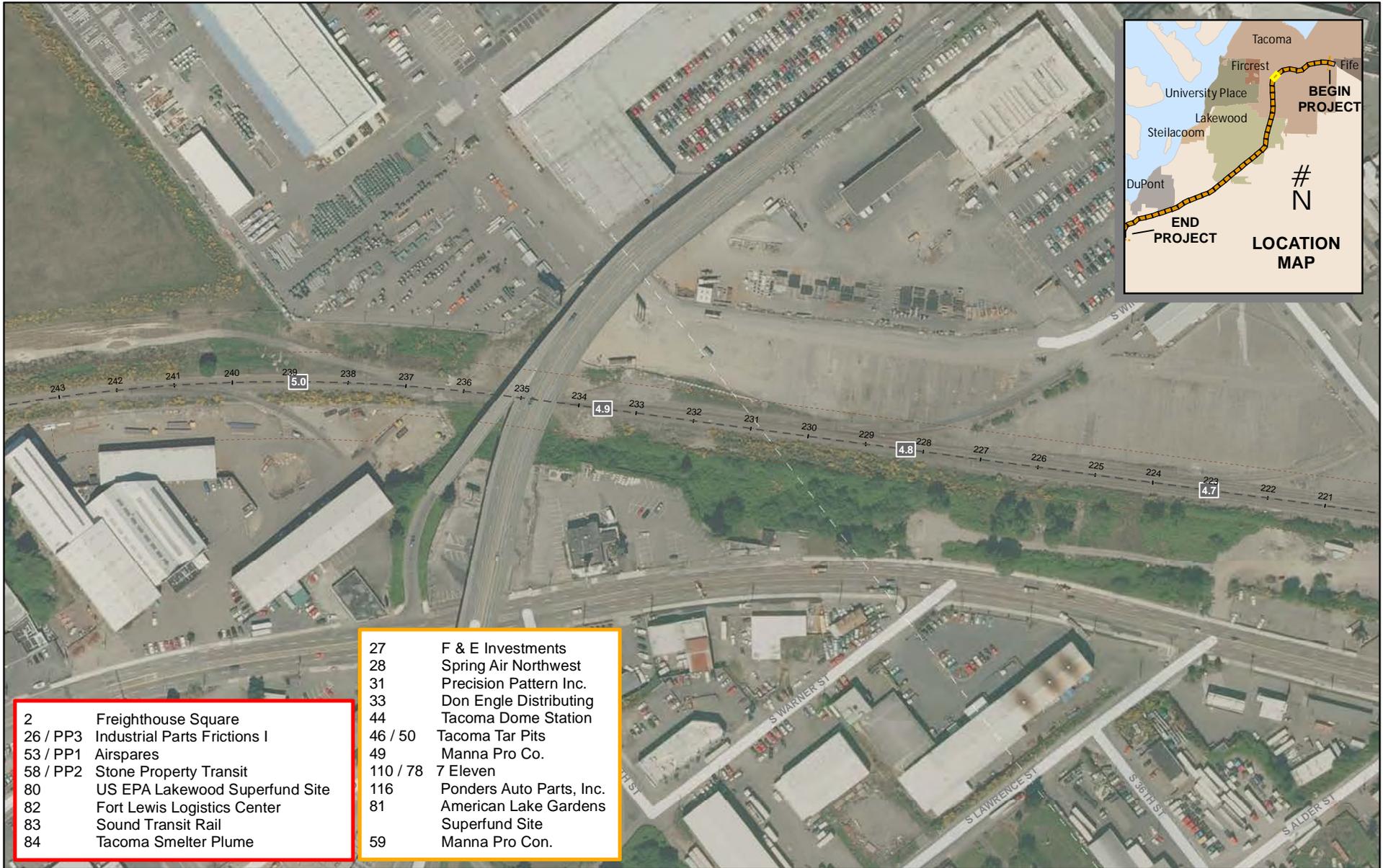
Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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Washington State
 Department of Transportation
 April 2012

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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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Materials Sites of Concern

April 2012



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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



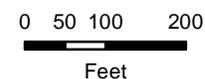
Sites of Concern

- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
- +— Railroad Centerline (proposed)
- + - Railroad Centerline (existing)
- Right of Way (existing)
- Cut Line
- Fill Line

- Crossing panel
- Wetland (existing)
- ▣ Clear and Grub Area
- ▤ Staging Stockpile Site
- Soil Disturbance: 2' to 5'
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- Site 82 - Fort Lewis Logistics Center Groundwater Plumes
- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



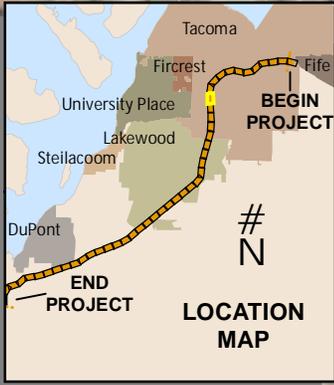
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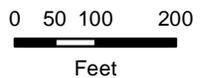
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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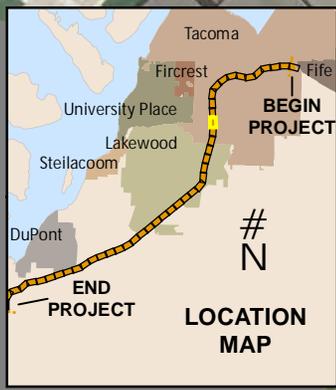
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
 April 2012

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46



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| 2 | Freighthouse Square |
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
 April 2012
 Washington State Department of Transportation

Sites of Concern

- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

Rail Features

- Rail Milepost
- Railroad Centerline (proposed)
- Railroad Centerline (existing)
- Right of Way (existing)
- Cut Line
- Fill Line

Other Features

- Crossing panel
- Wetland (existing)
- Clear and Grub Area
- Staging Stockpile Site
- Soil Disturbance: 2' to 5'
- Soil Disturbance: > 5'

Site 82 - Fort Lewis Logistics Center Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume

0 50 100 200 Feet

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 46

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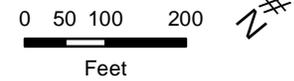


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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
 April 2012

| | | | |
|---|--------------------------------|----------------------------|---|
| Sites of Concern | RM Rail Milepost | Crossing panel | Site 82 - Fort Lewis Logistics Center Groundwater Plumes |
| High | Railroad Centerline (proposed) | Wetland (existing) | 2006-07 Vashon TCE Plume |
| Moderate | Railroad Centerline (existing) | Clear and Grub Area | 2006-07 Sea Level TCE Plume |
| Low | Right of Way (existing) | Staging Stockpile Site | |
| Proposed Parking (PP) Acquisition Sites | Cut Line | Soil Disturbance: 2' to 5' | |
| | Fill Line | Soil Disturbance: > 5' | |



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- 2 Freighthouse Square
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

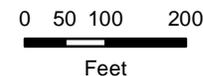
- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
- +— Railroad Centerline (proposed)
- + - Railroad Centerline (existing)
- Right of Way (existing)
- Cut Line
- Fill Line

- Crossing panel
- Wetland (existing)
- ▣ Clear and Grub Area
- ▣ Staging Stockpile Site
- Soil Disturbance: 2' to 5'
- Soil Disturbance: > 5'

Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



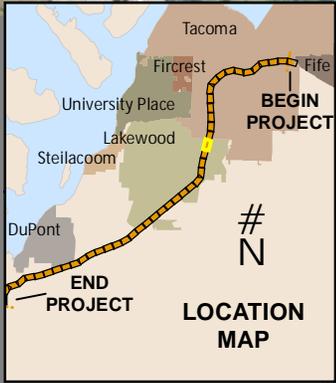
SHEET
16
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46

* Details shown are subject to change.

File: HazMat Footprint 04182012

Source: WSDOT; HDR Engineering, Inc., EPA

Contours are approximate and are for visualization purposes only.



- 2 Freighthouse Square
- 26 / PP3 Industrial Parts Frictions I
- 53 / PP1 Airspares
- 58 / PP2 Stone Property Transit
- 80 US EPA Lakewood Superfund Site
- 82 Fort Lewis Logistics Center
- 83 Sound Transit Rail
- 84 Tacoma Smelter Plume

- 27 F & E Investments
- 28 Spring Air Northwest
- 31 Precision Pattern Inc.
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- 49 Manna Pro Co.
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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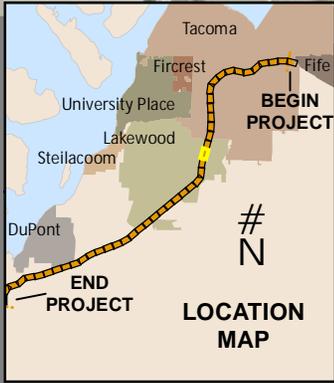
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46

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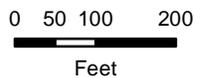
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

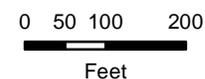
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Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



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 OF
46

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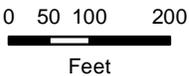


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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern
 April 2012

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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
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April 2012



Sites of Concern

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- Site 82 - Fort Lewis Logistics Center Groundwater Plumes
- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



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46

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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



| | | | |
|---|--------------------------------|----------------------------|---|
| Sites of Concern | RM Rail Milepost | Crossing panel | Site 82 - Fort Lewis Logistics Center Groundwater Plumes |
| High | Railroad Centerline (proposed) | Wetland (existing) | 2006-07 Vashon TCE Plume |
| Moderate | Railroad Centerline (existing) | Clear and Grub Area | 2006-07 Sea Level TCE Plume |
| Low | Right of Way (existing) | Staging Stockpile Site | |
| Proposed Parking (PP) Acquisition Sites | Cut Line | Soil Disturbance: 2' to 5' | |
| | Fill Line | Soil Disturbance: > 5' | |



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 46

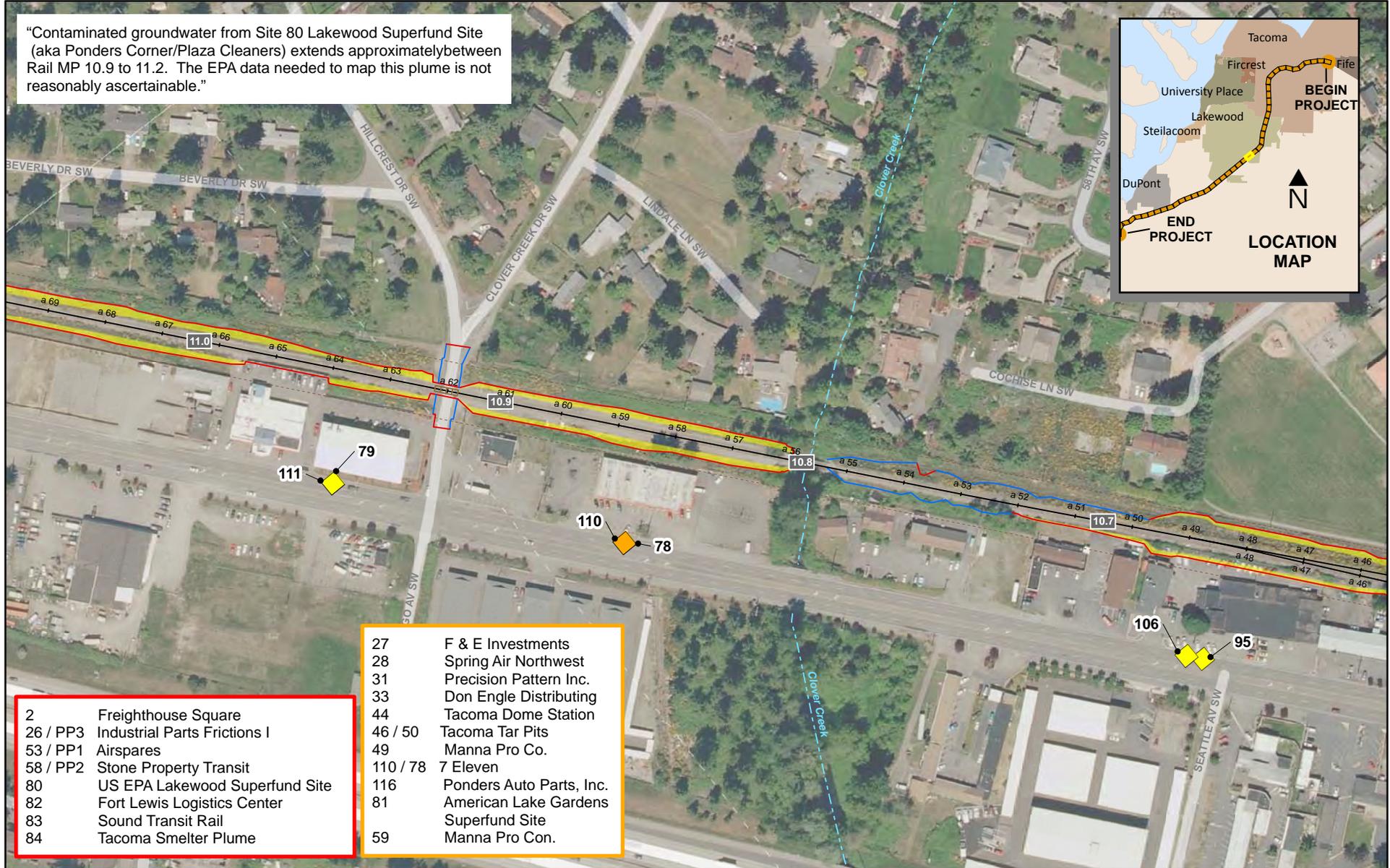
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File: HazMat Footprint 04182012

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"Contaminated groundwater from Site 80 Lakewood Superfund Site (aka Ponders Corner/Plaza Cleaners) extends approximately between Rail MP 10.9 to 11.2. The EPA data needed to map this plume is not reasonably ascertainable."



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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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April 2012



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- Site 82 - Fort Lewis Logistics Center Groundwater Plumes
- 2006-07 Vashon TCE Plume
 - 2006-07 Sea Level TCE Plume



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46

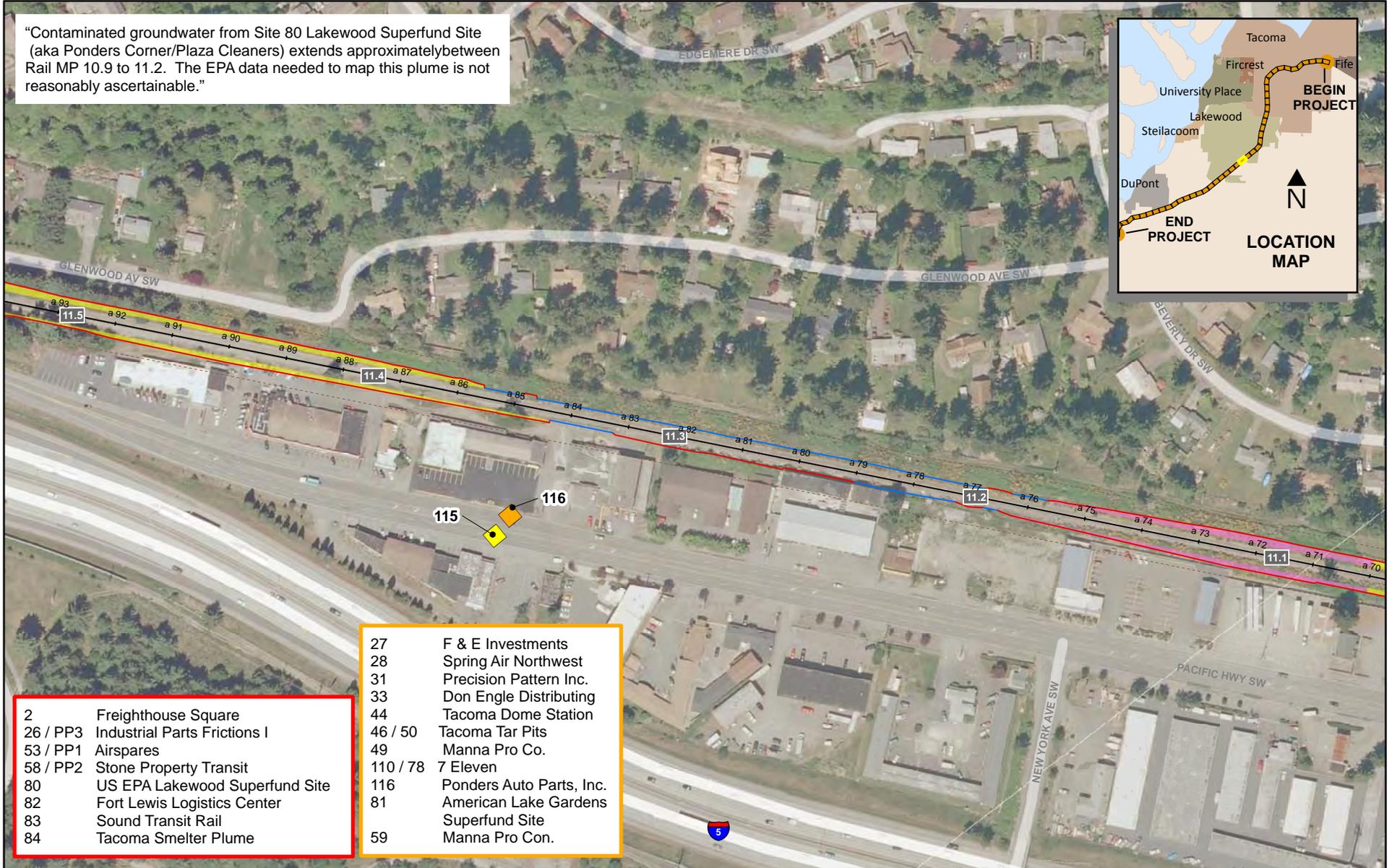
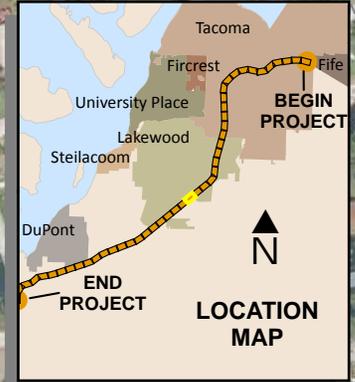
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**Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern**

April 2012



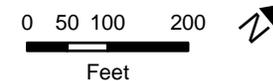
Sites of Concern

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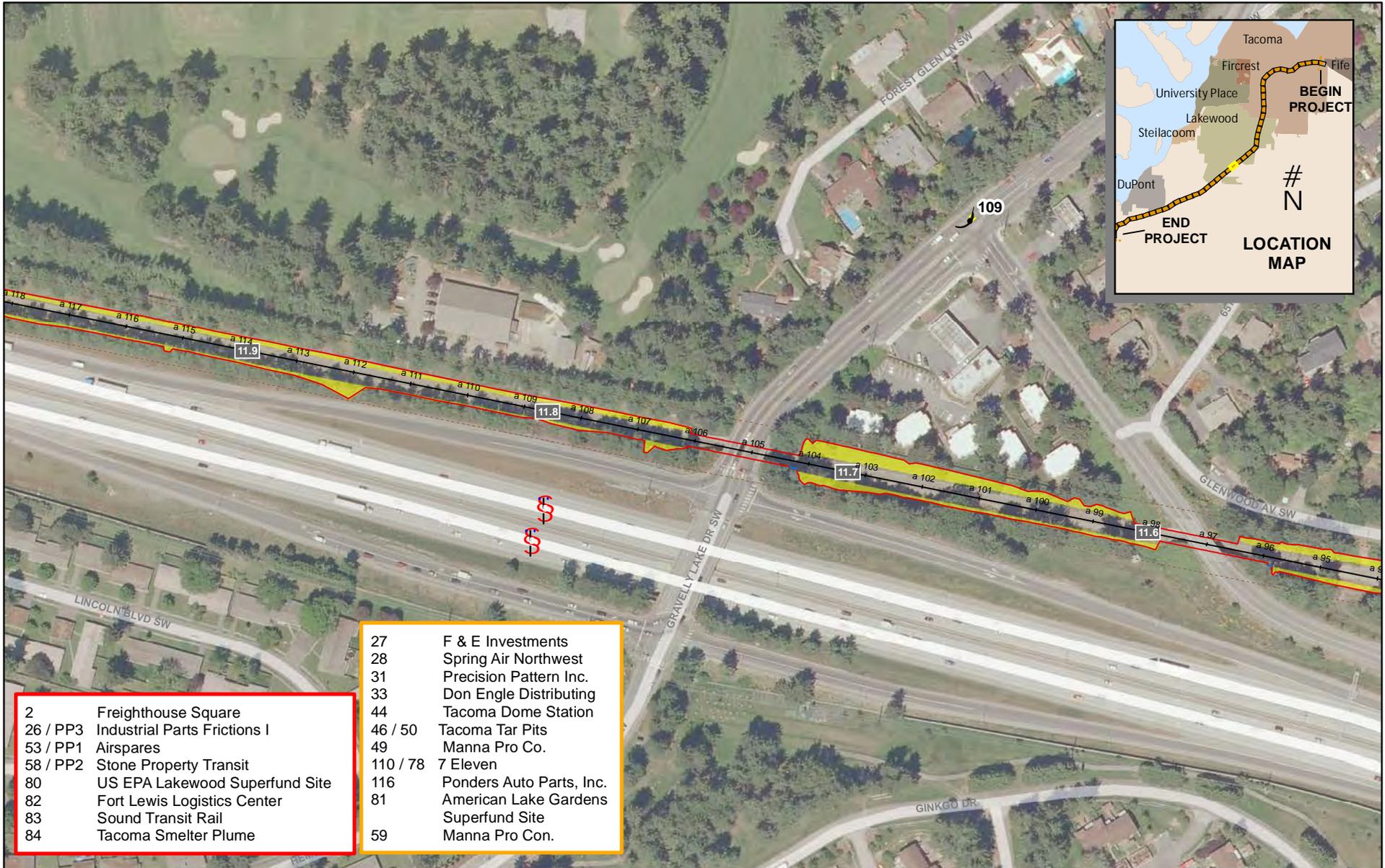
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- Site 82 - Fort Lewis Logistics Center Groundwater Plumes
- 2006-07 Vashon TCE Plume
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46



- 2 Freighthouse Square
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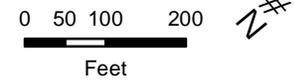
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Pt. Defiance Bypass Project:
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April 2012



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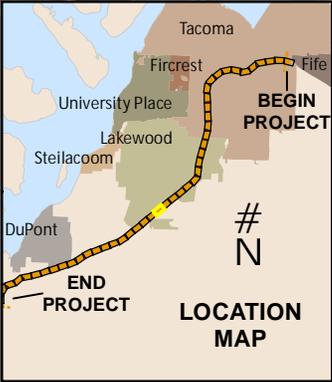
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46

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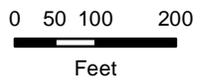
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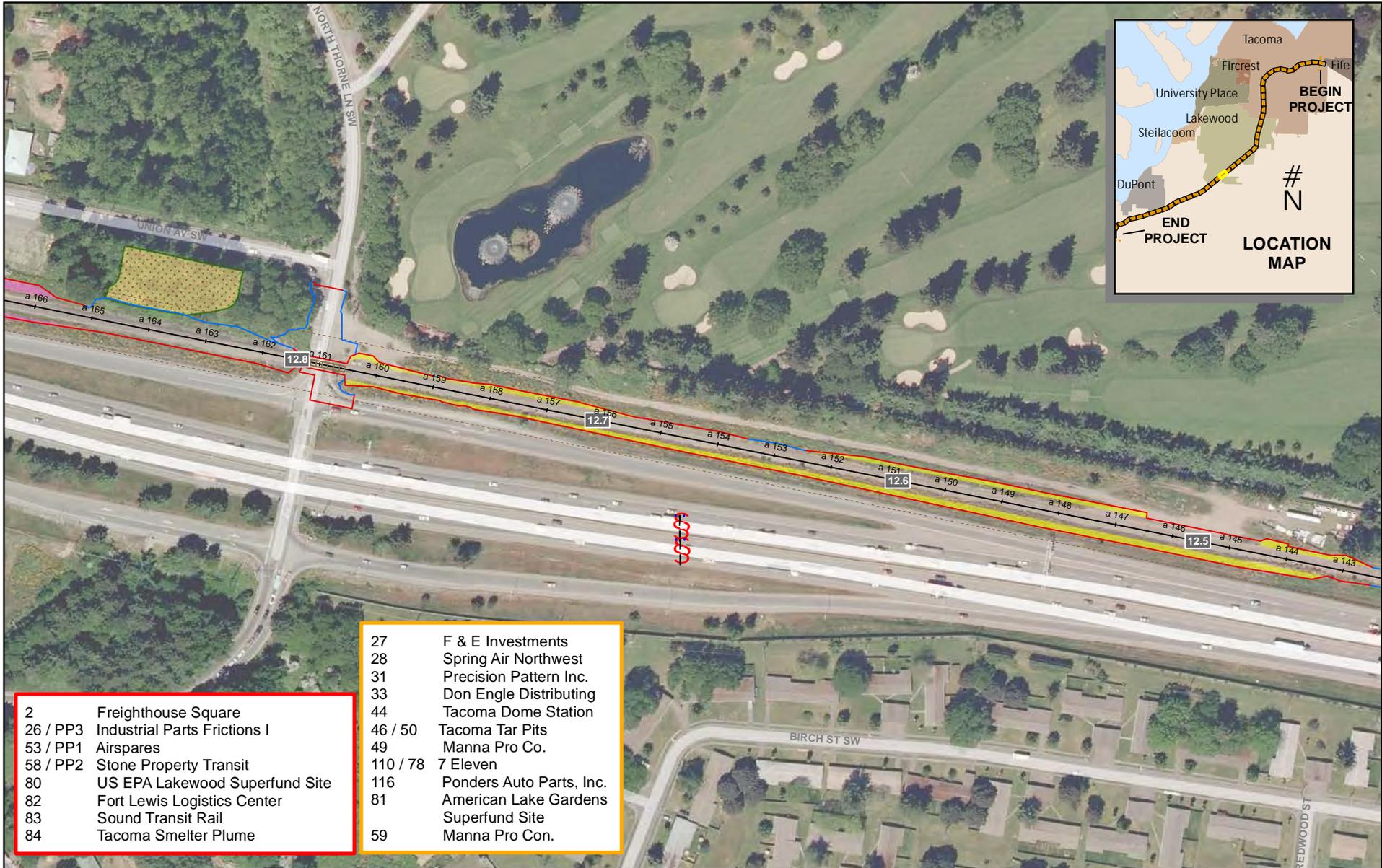
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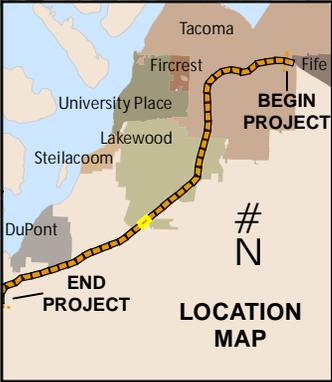
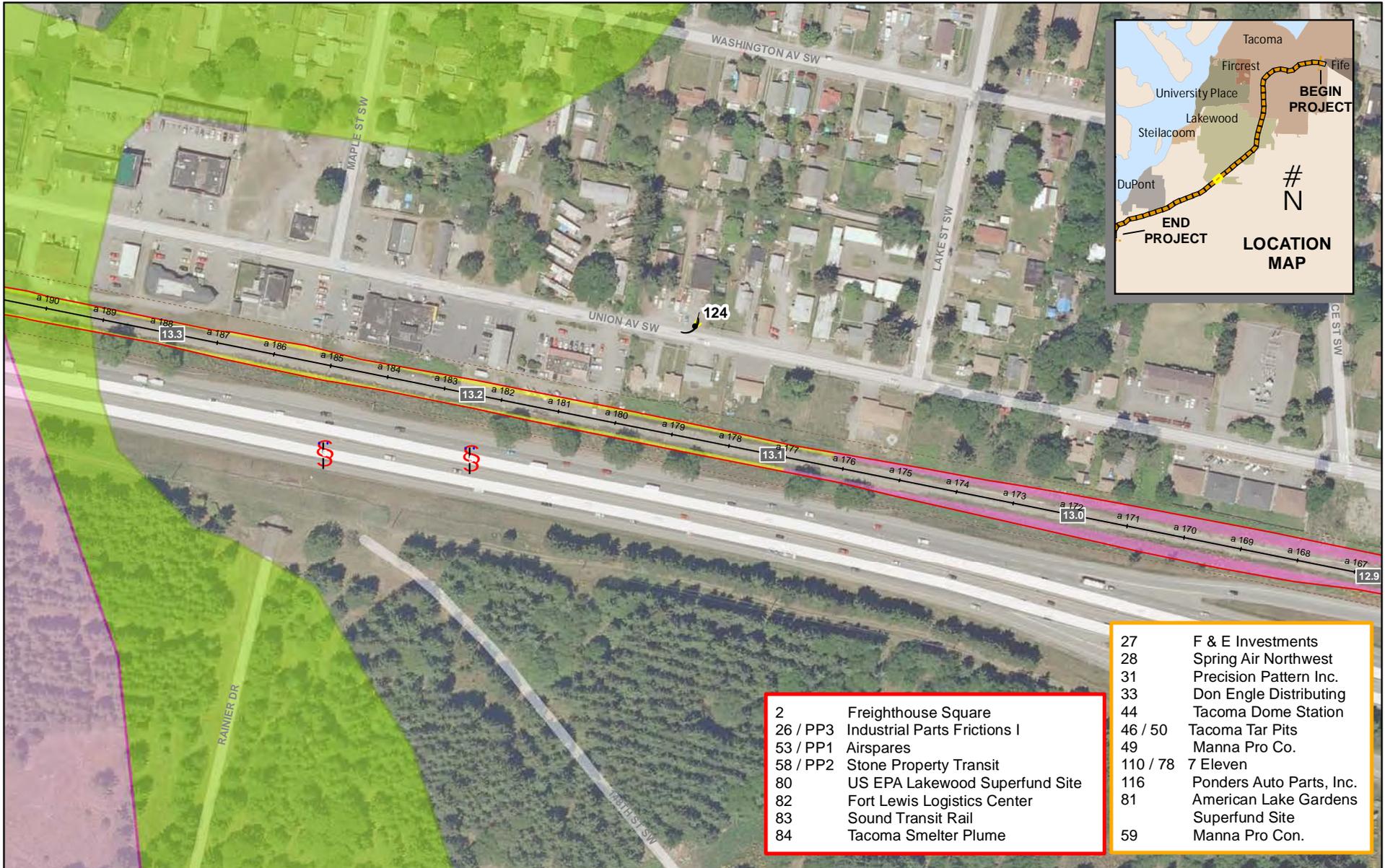
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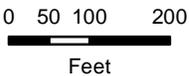
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Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
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 28
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 46

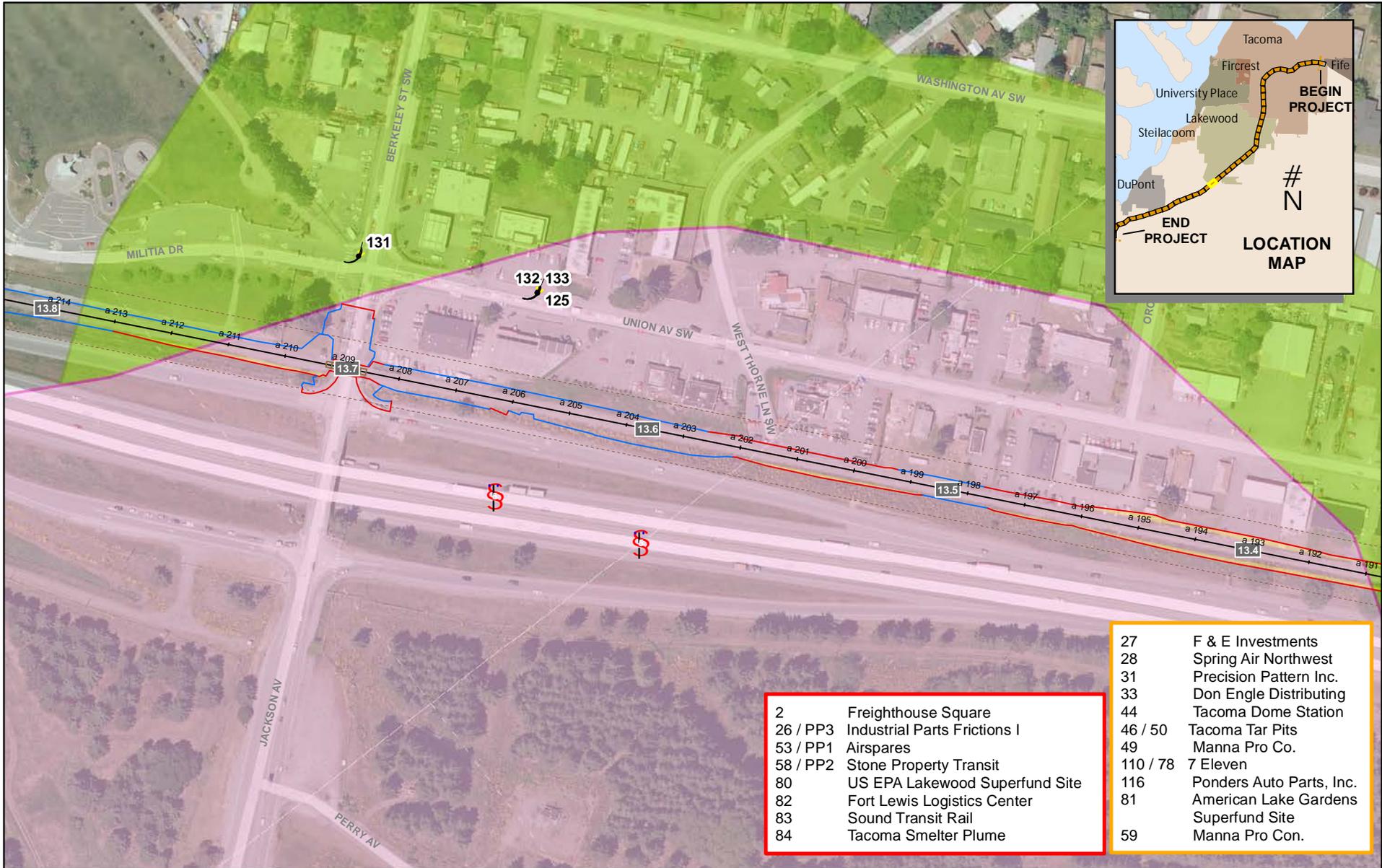


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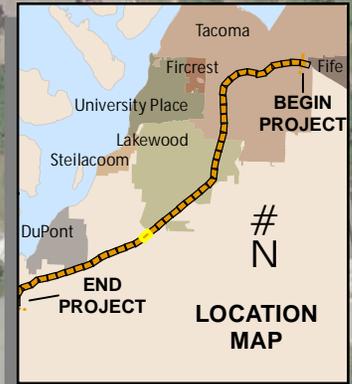
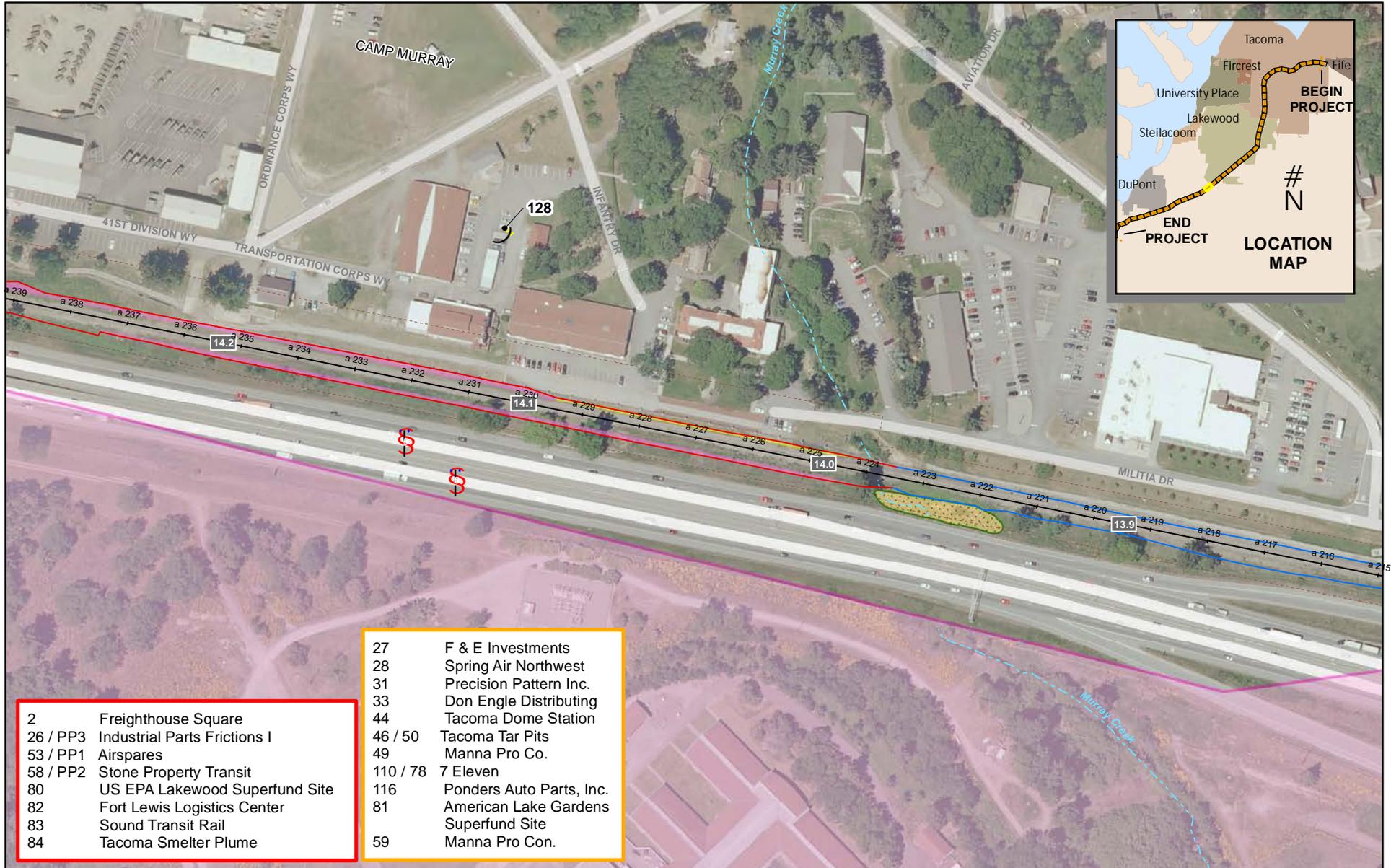
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| 83 | Sound Transit Rail |
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



| | | | |
|---|---|---|--|
| Sites of Concern High Moderate Low Proposed Parking (PP) Acquisition Sites | RM Rail Milepost Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line | Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | Site 82 - Fort Lewis Logistics Center Groundwater Plumes 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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| | <p>* Details shown are subject to change. File: HazMat Footprint 04182012 Source: WSDOT; HDR Engineering, Inc., EPA Contours are approximate and are for visualization purposes only.</p> | | |



- 2 Freighthouse Square
- 26 / PP3 Industrial Parts Frictions I
- 53 / PP1 Airspares
- 58 / PP2 Stone Property Transit
- 80 US EPA Lakewood Superfund Site
- 82 Fort Lewis Logistics Center
- 83 Sound Transit Rail
- 84 Tacoma Smelter Plume

- 27 F & E Investments
- 28 Spring Air Northwest
- 31 Precision Pattern Inc.
- 33 Don Engle Distributing
- 44 Tacoma Dome Station
- 46 / 50 Tacoma Tar Pits
- 49 Manna Pro Co.
- 110 / 78 7 Eleven
- 116 Ponders Auto Parts, Inc.
- 81 American Lake Gardens Superfund Site
- 59 Manna Pro Con.

**Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern**

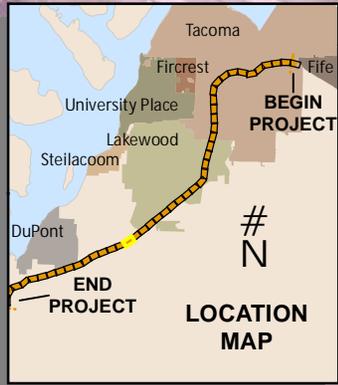
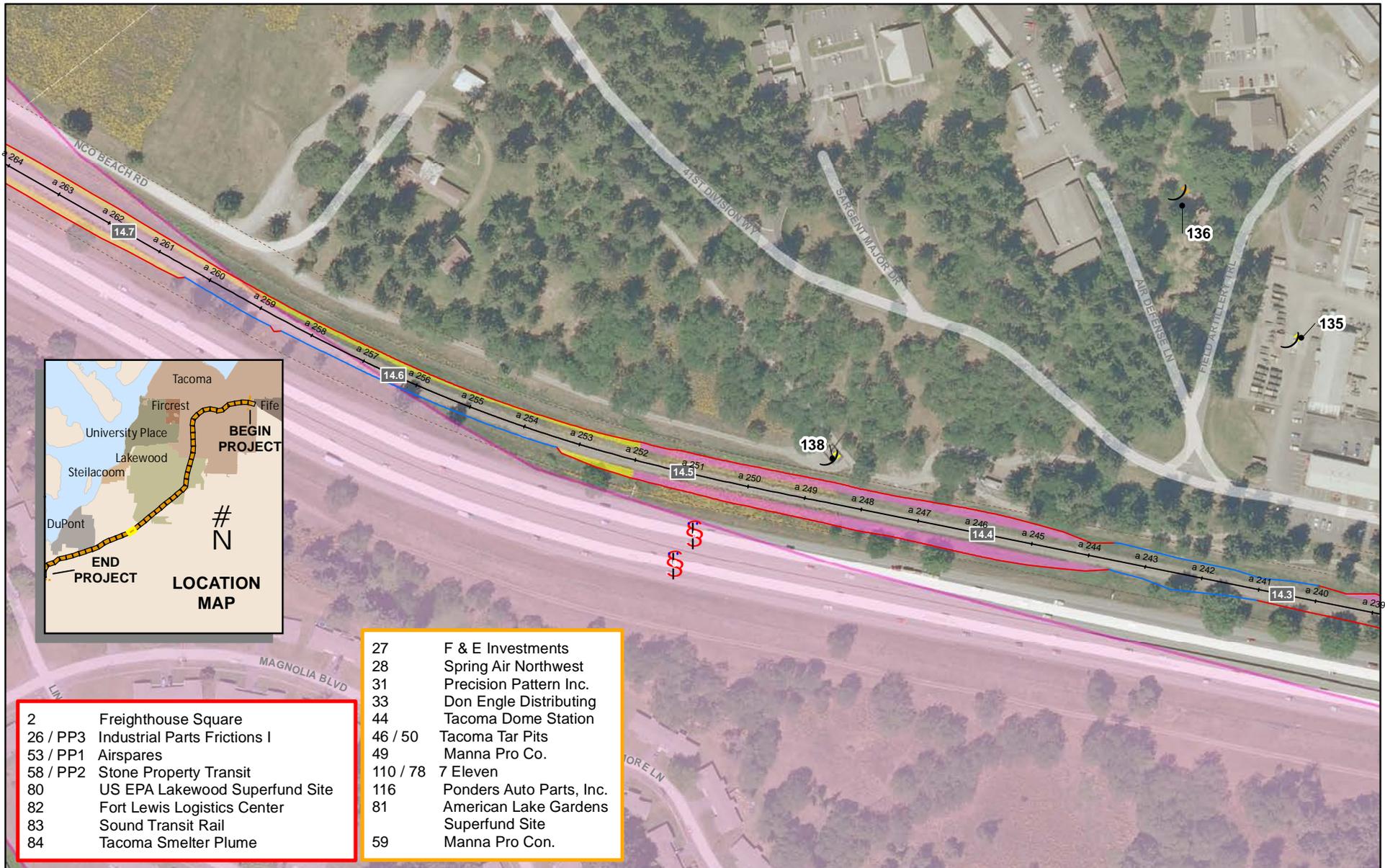
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| <p>Sites of Concern</p> <ul style="list-style-type: none"> High Moderate Low Proposed Parking (PP) Acquisition Sites | <p>RM Rail Milepost</p> <ul style="list-style-type: none"> Railroad Centerline (proposed) Railroad Centerline (existing) Right of Way (existing) Cut Line Fill Line <p>Proposed Parking (PP) Acquisition Sites</p> | <ul style="list-style-type: none"> Crossing panel Wetland (existing) Clear and Grub Area Staging Stockpile Site Soil Disturbance: 2' to 5' Soil Disturbance: > 5' | <p>Site 82 - Fort Lewis Logistics Center Groundwater Plumes</p> <ul style="list-style-type: none"> 2006-07 Vashon TCE Plume 2006-07 Sea Level TCE Plume |
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| 2 | Freighthouse Square |
| 26 / PP3 | Industrial Parts Frictions I |
| 53 / PP1 | Airspares |
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| 84 | Tacoma Smelter Plume |

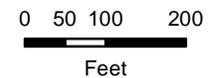
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| 27 | F & E Investments |
| 28 | Spring Air Northwest |
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| 33 | Don Engle Distributing |
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



| | | | |
|---|--------------------------------|----------------------------|---|
| Sites of Concern | RM Rail Milepost | Crossing panel | Site 82 - Fort Lewis Logistics Center Groundwater Plumes |
| High | Railroad Centerline (proposed) | Wetland (existing) | 2006-07 Vashon TCE Plume |
| Moderate | Railroad Centerline (existing) | Clear and Grub Area | 2006-07 Sea Level TCE Plume |
| Low | Right of Way (existing) | Staging Stockpile Site | |
| Proposed Parking (PP) Acquisition Sites | Cut Line | Soil Disturbance: 2' to 5' | |
| | Fill Line | Soil Disturbance: > 5' | |



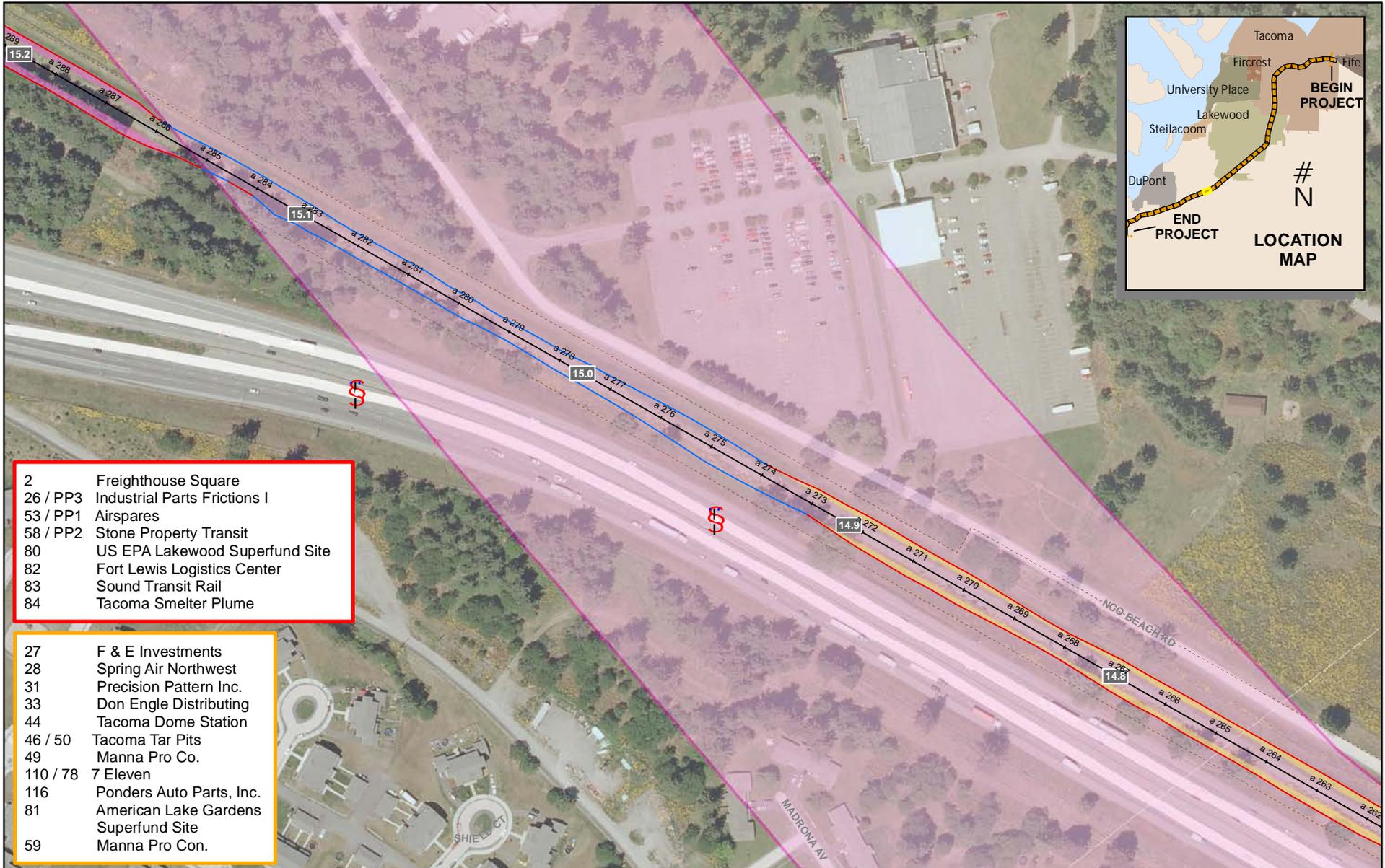
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

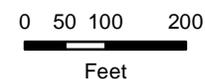
- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
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- Cut Line
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- Proposed Parking (PP) Acquisition Sites

- Crossing panel
- Wetland (existing)
- Clear and Grub Area
- Staging Stockpile Site
- Soil Disturbance: 2' to 5'
- Soil Disturbance: > 5'

Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



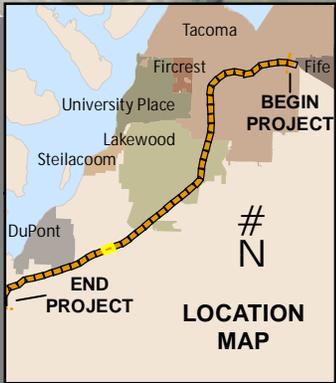
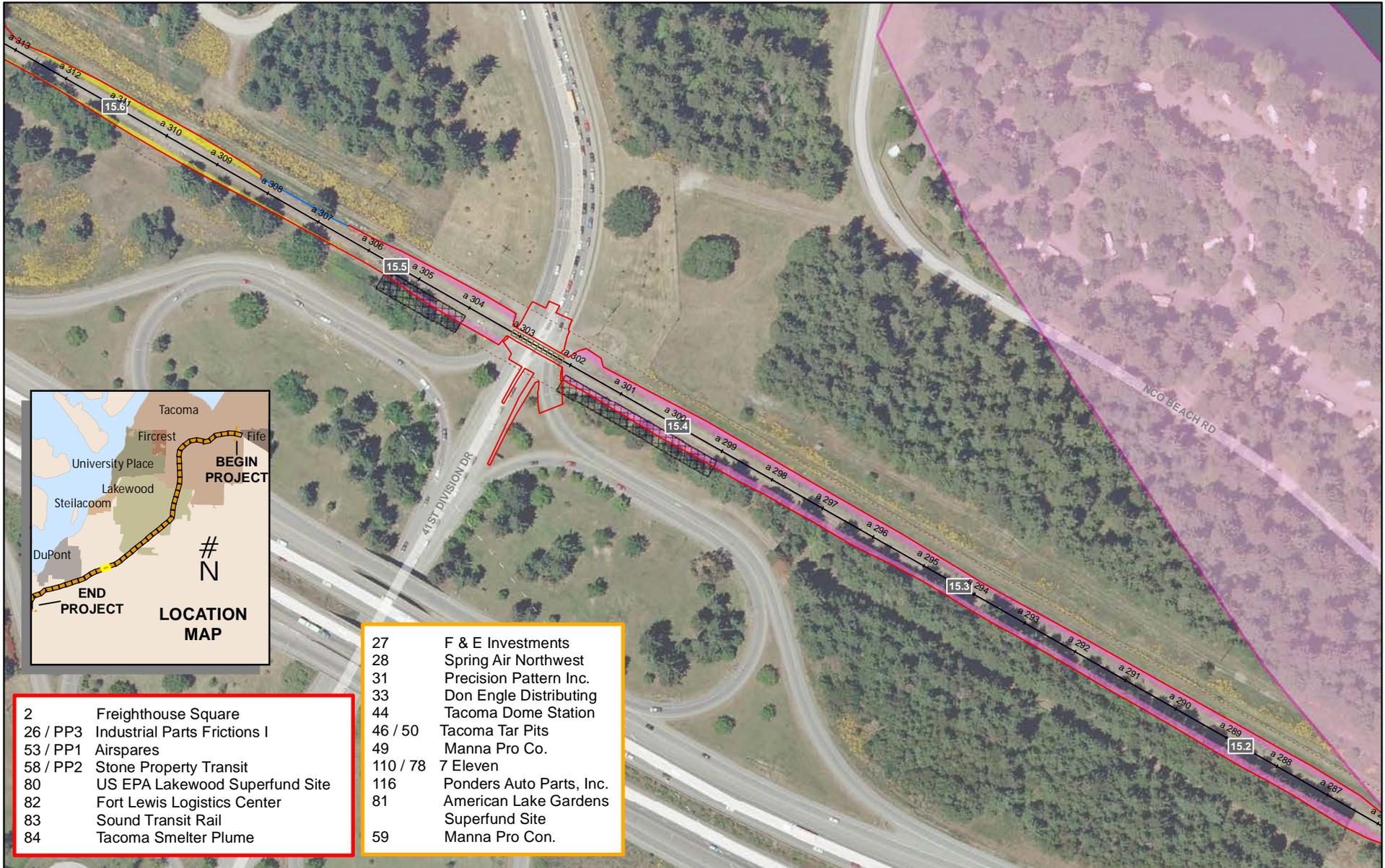
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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|--|---|--|---|



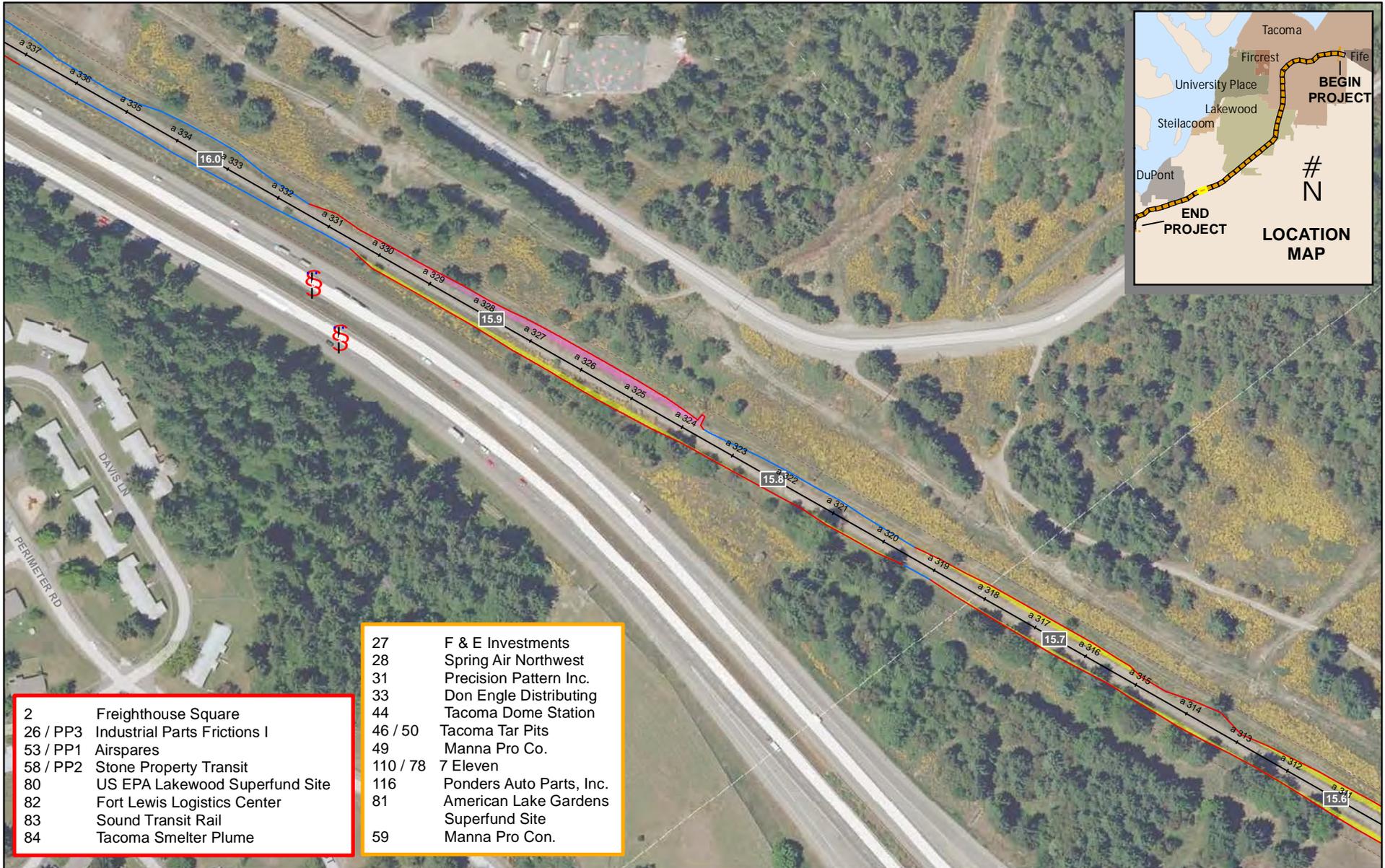
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

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Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



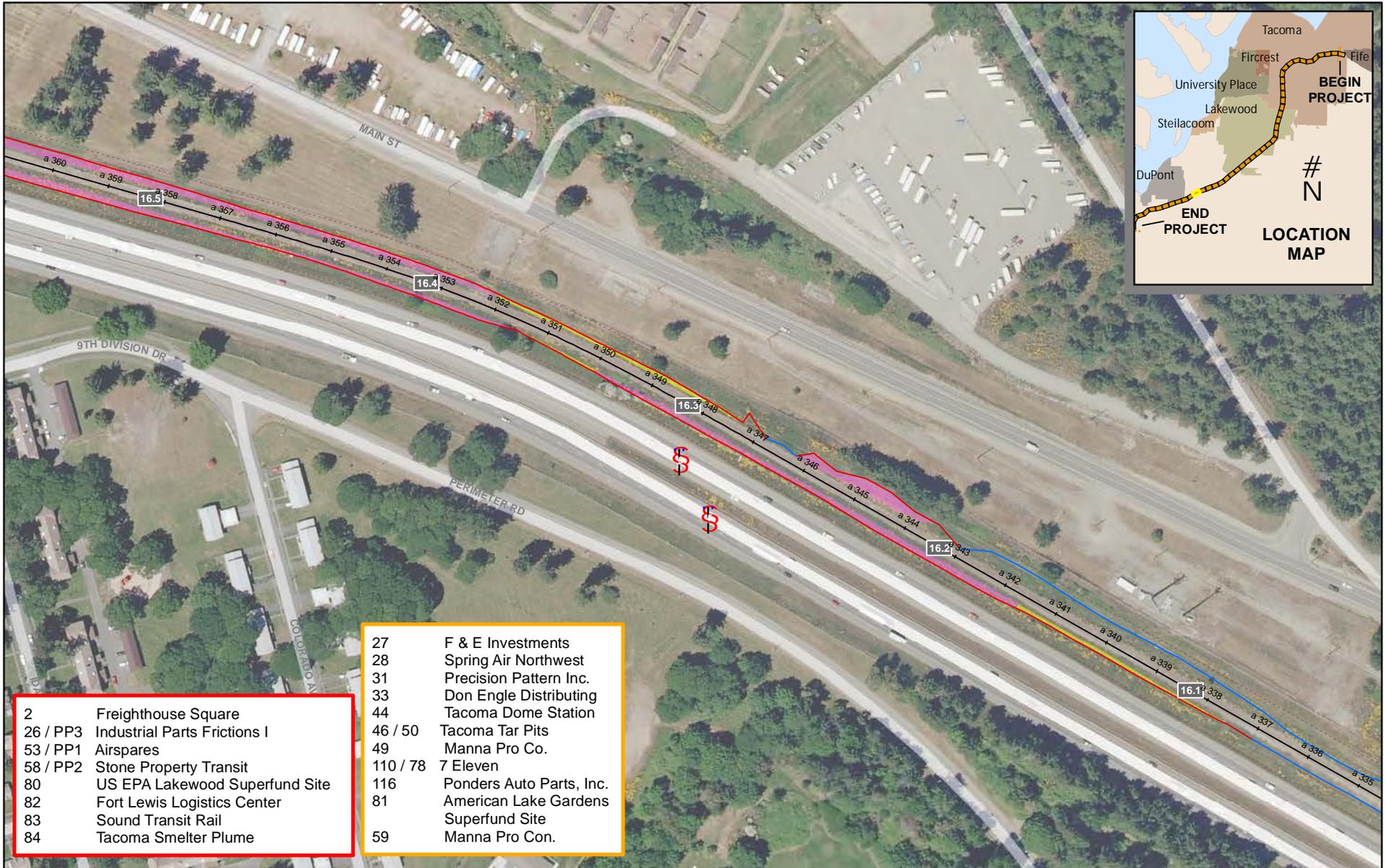
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



Sites of Concern

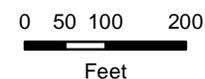
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Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

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- 2006-07 Sea Level TCE Plume



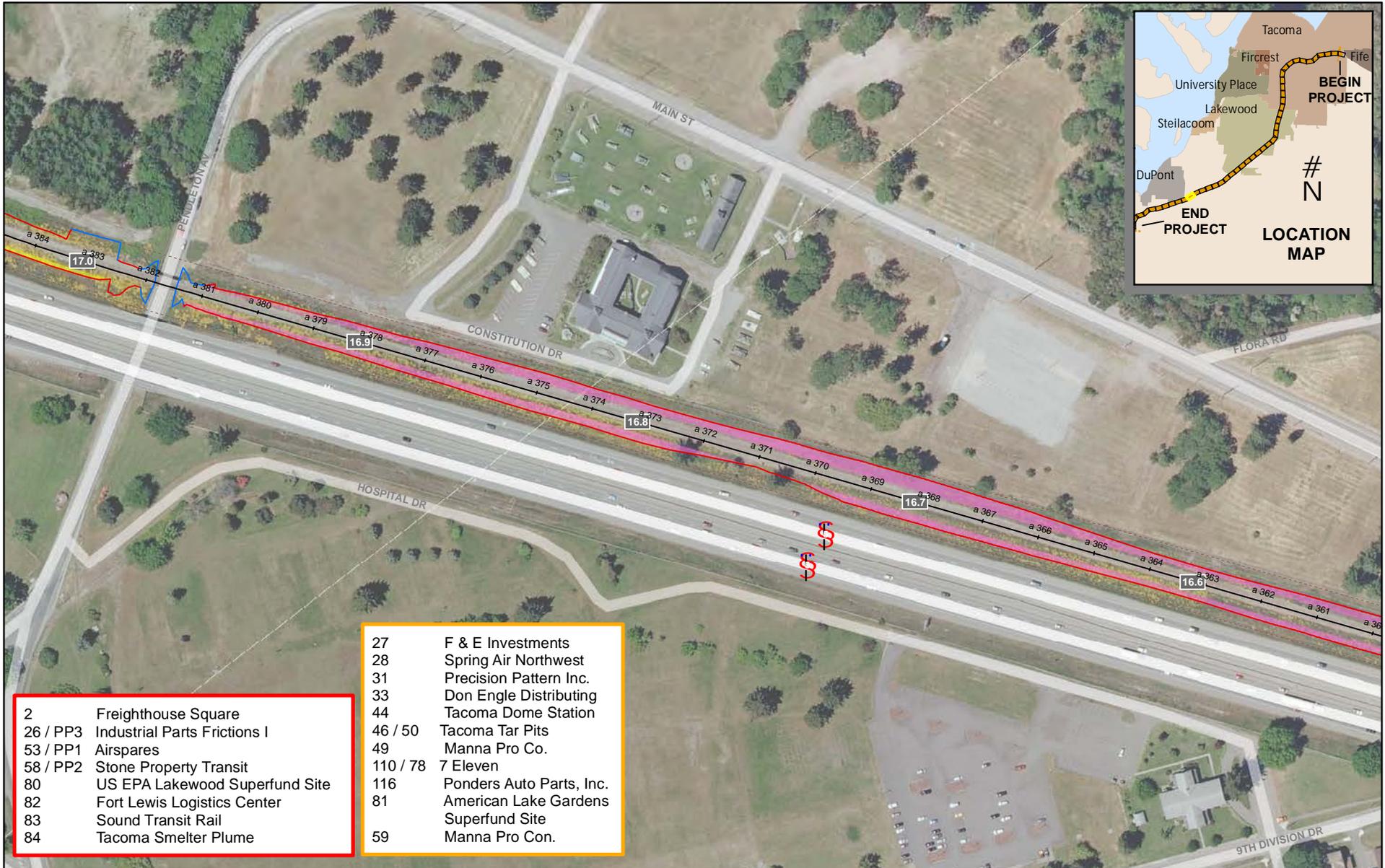
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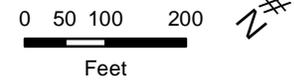
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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April 2012



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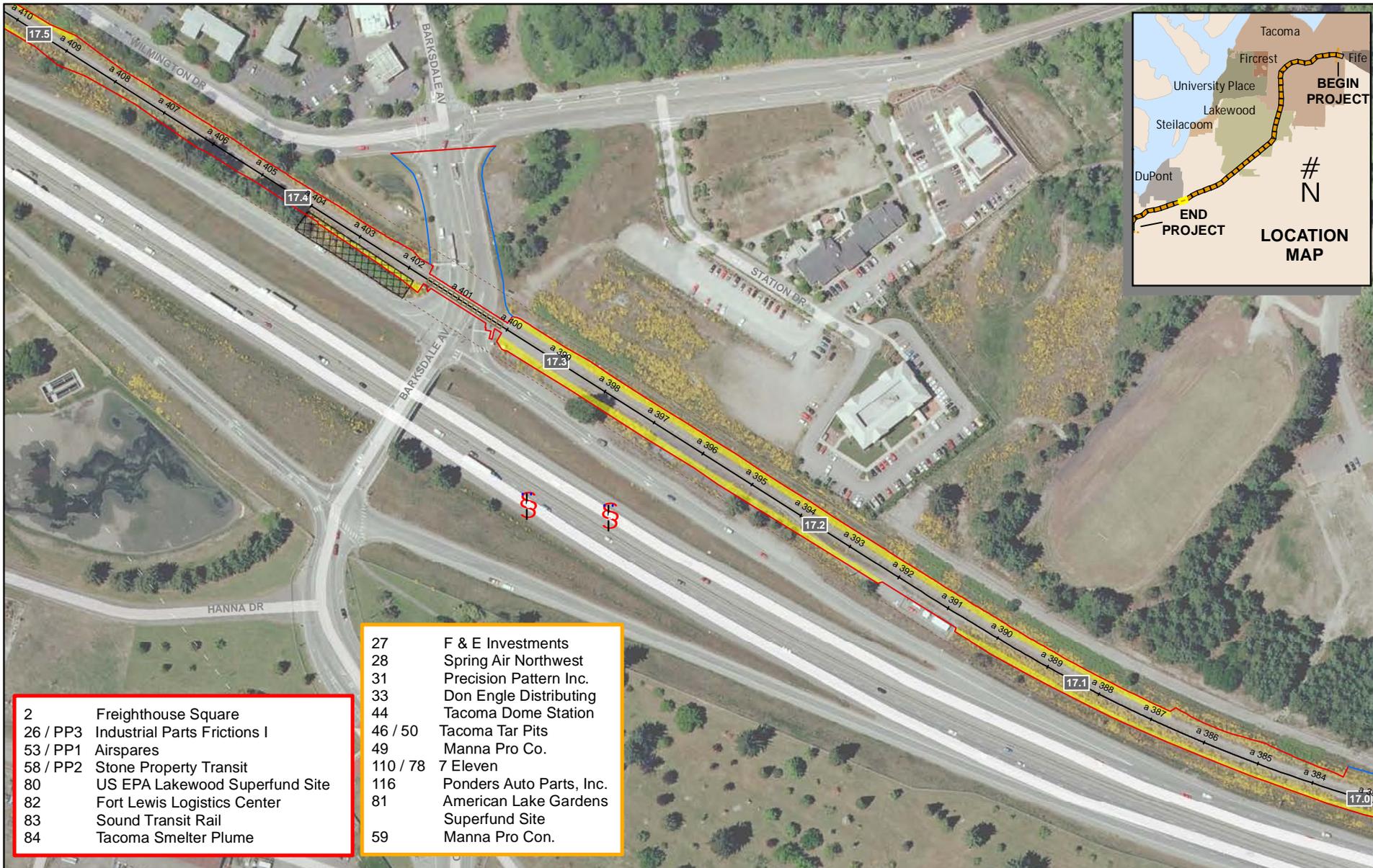
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
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April 2012



Sites of Concern

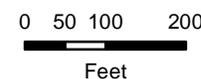
- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
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- Crossing panel
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- Staging Stockpile Site
- Soil Disturbance: 2' to 5'
- Soil Disturbance: > 5'

Site 82 - Fort Lewis Logistics Center
Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume



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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
 April 2012

Sites of Concern

- High
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- Proposed Parking (PP) Acquisition Sites

RM Rail Milepost

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Site 82 - Fort Lewis Logistics Center Groundwater Plumes

- 2006-07 Vashon TCE Plume
- 2006-07 Sea Level TCE Plume

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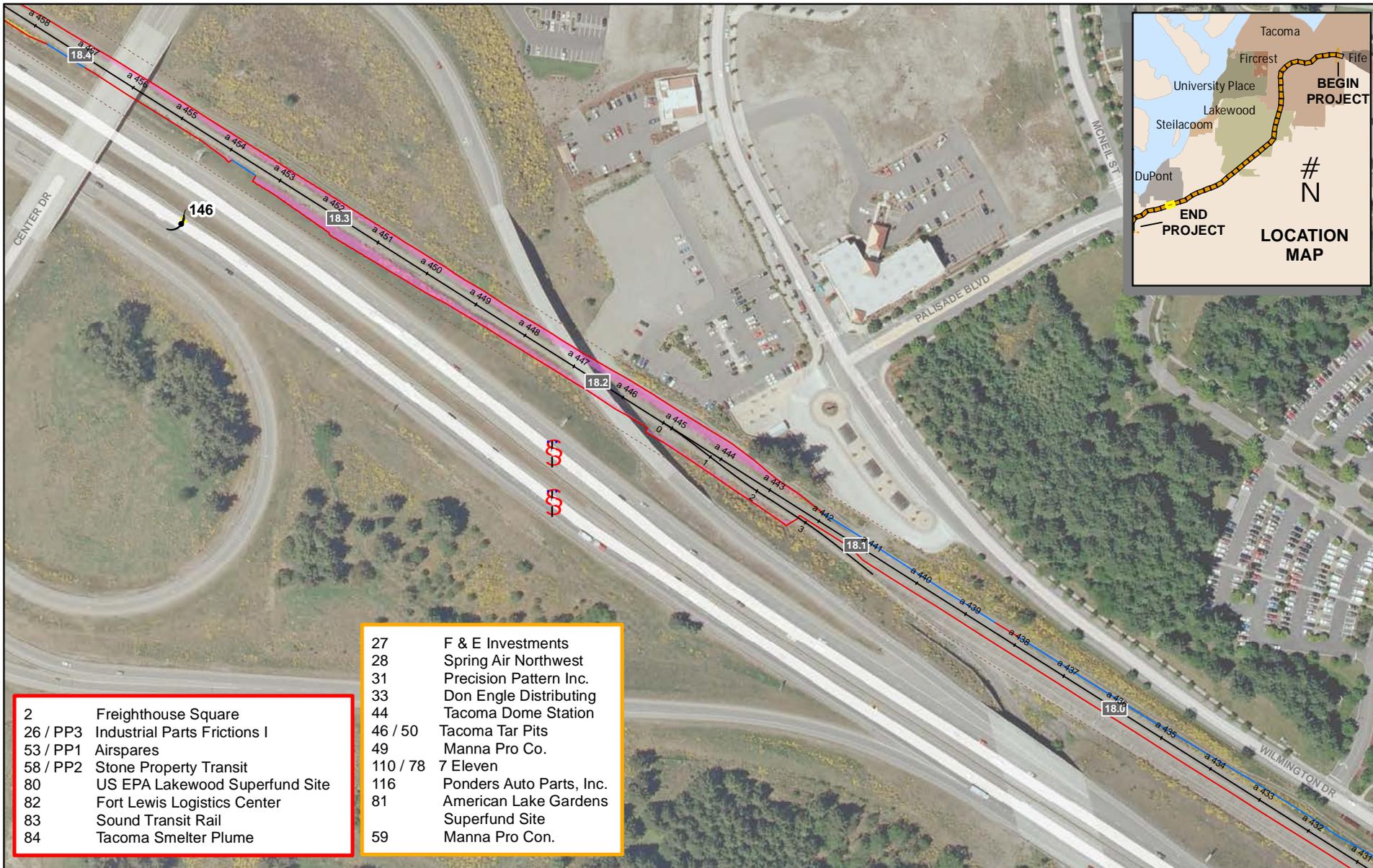
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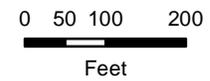
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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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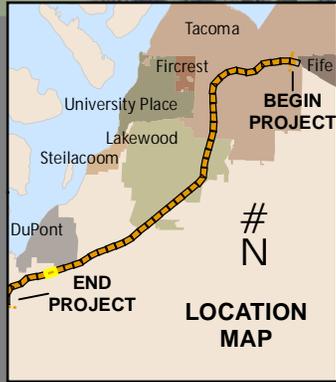
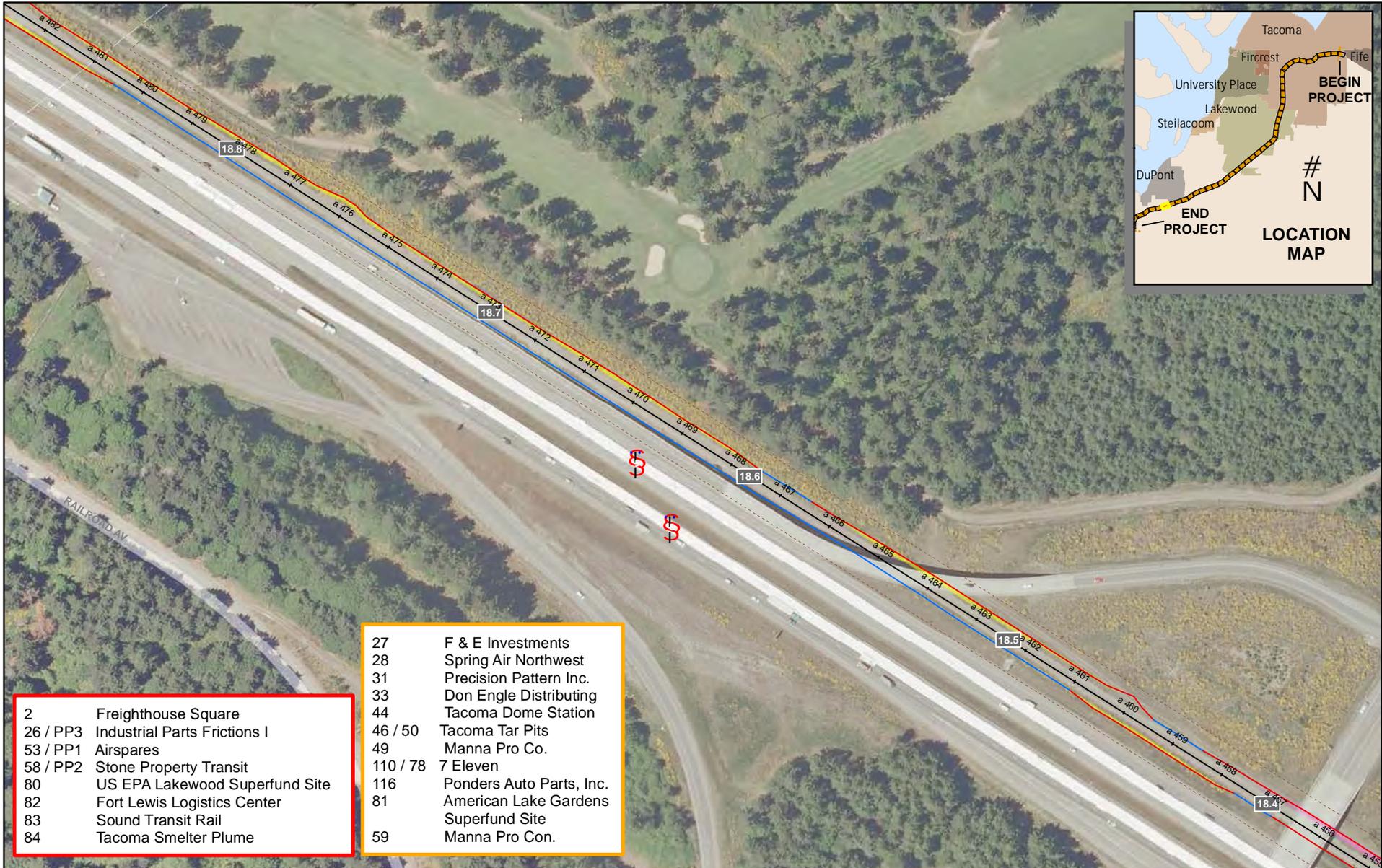
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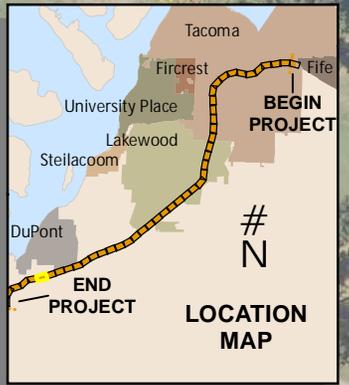
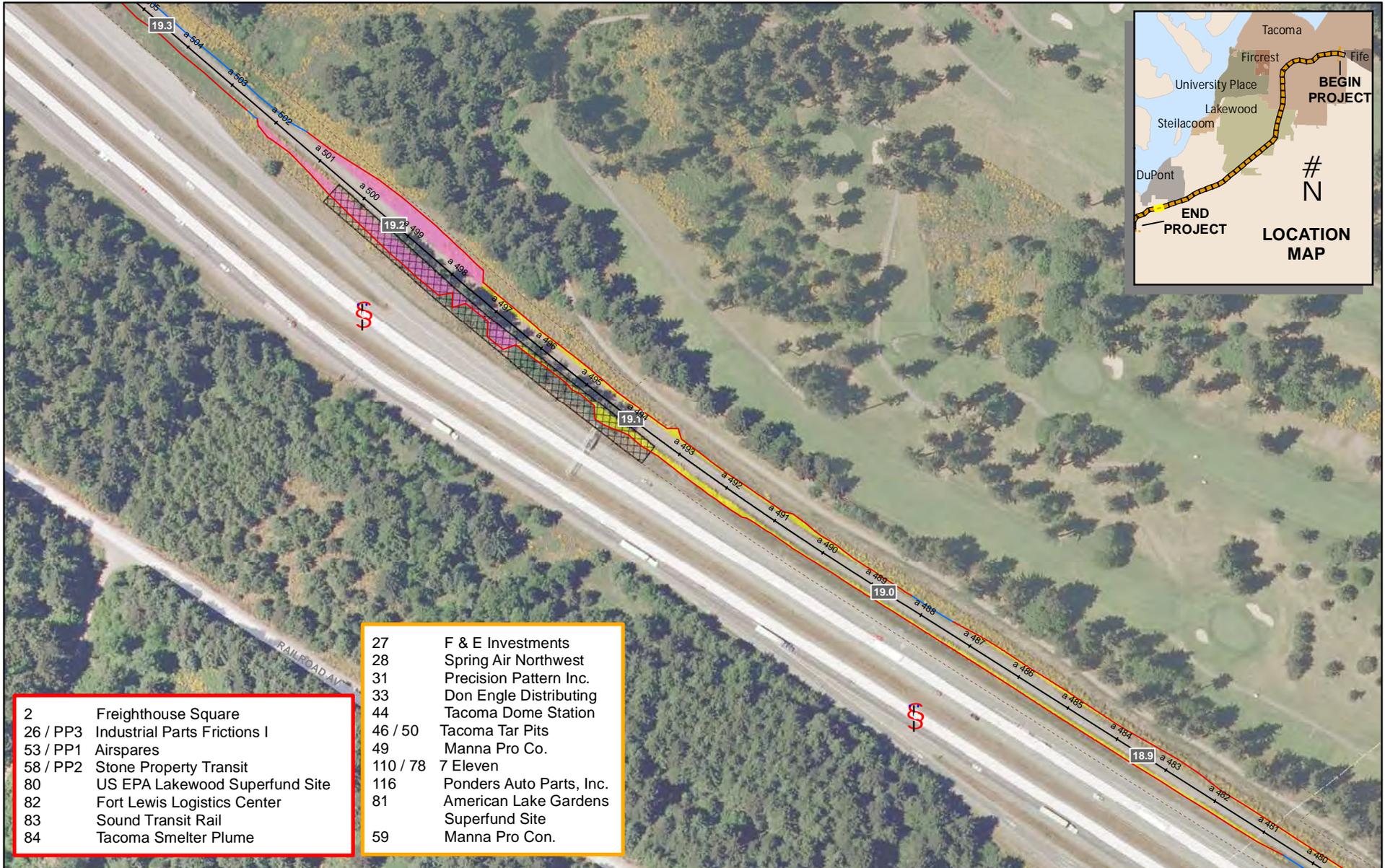
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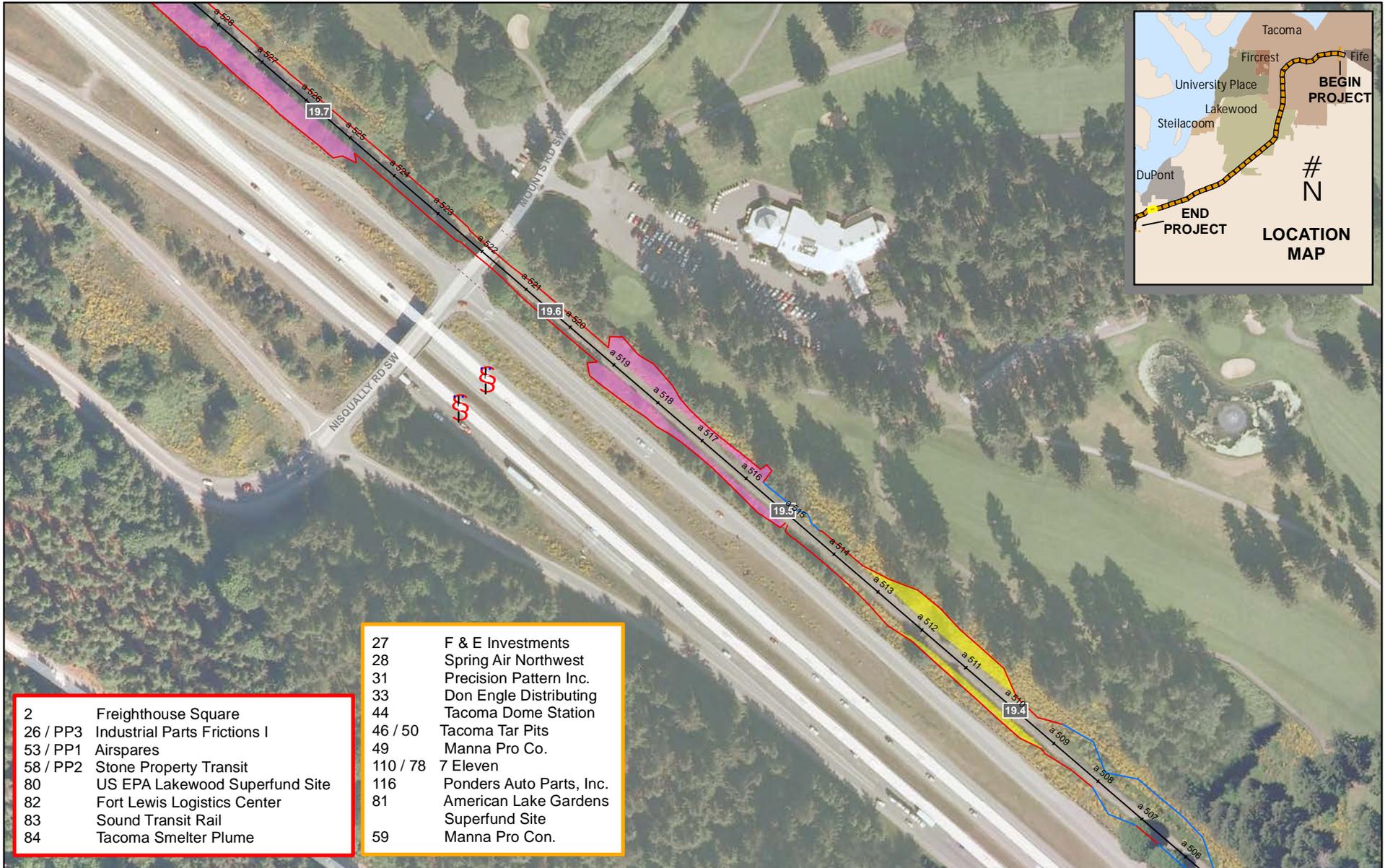
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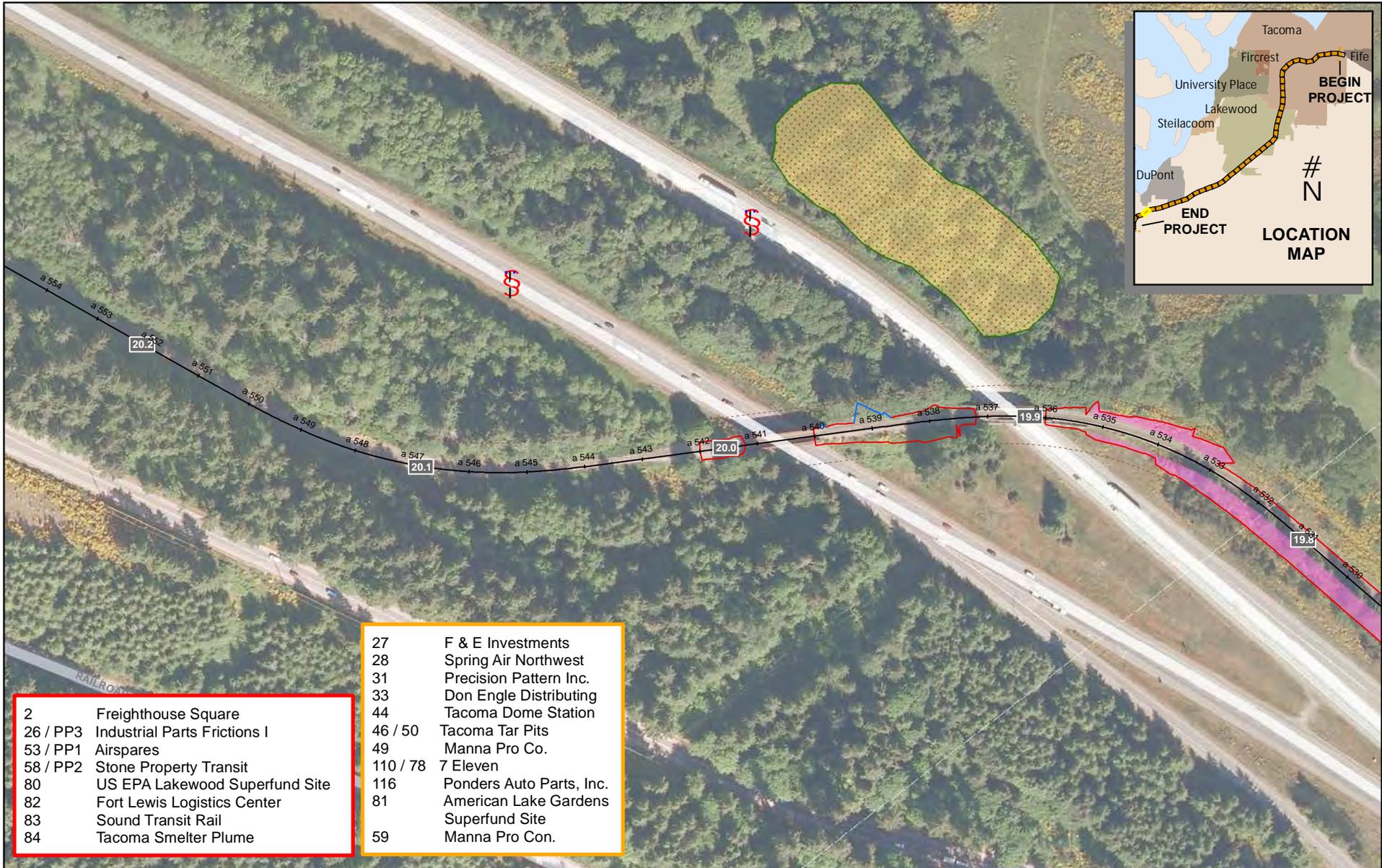
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* Details shown are subject to change.

File: HazMat Footprint 04182012

Source: WSDOT; HDR Engineering, Inc., EPA

Contours are approximate and are for visualization purposes only.



- 2 Freighthouse Square
- 26 / PP3 Industrial Parts Frictions I
- 53 / PP1 Airspares
- 58 / PP2 Stone Property Transit
- 80 US EPA Lakewood Superfund Site
- 82 Fort Lewis Logistics Center
- 83 Sound Transit Rail
- 84 Tacoma Smelter Plume

- 27 F & E Investments
- 28 Spring Air Northwest
- 31 Precision Pattern Inc.
- 33 Don Engle Distributing
- 44 Tacoma Dome Station
- 46 / 50 Tacoma Tar Pits
- 49 Manna Pro Co.
- 110 / 78 7 Eleven
- 116 Ponders Auto Parts, Inc.
- 81 American Lake Gardens Superfund Site
- 59 Manna Pro Con.

Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



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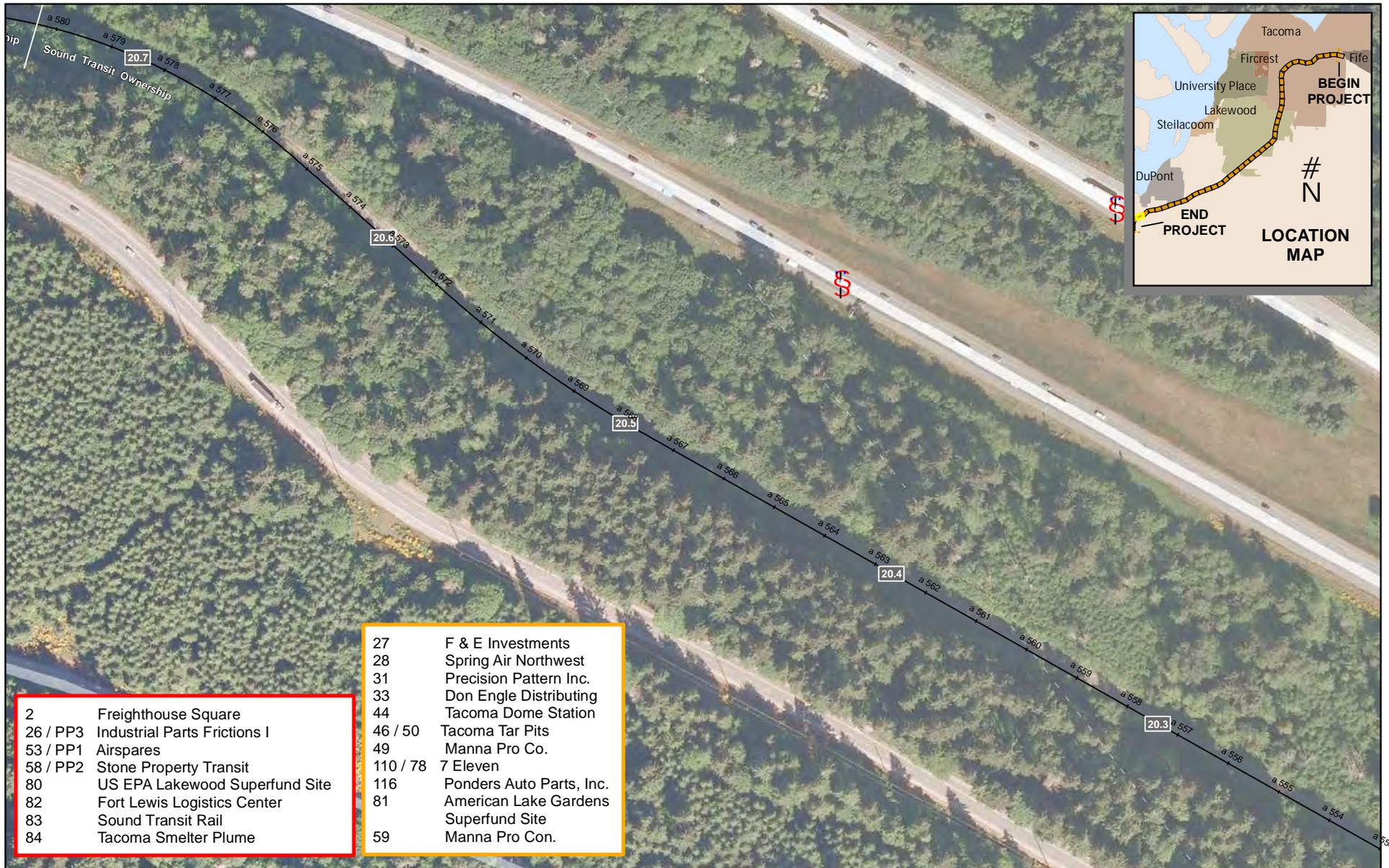
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April 2012



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Map of Soil Disturbance Areas, Acquisition Sites and Hazardous Materials Sites of Concern
 April 2012

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Pt. Defiance Bypass Project:
Map of Soil Disturbance Areas,
Acquisition Sites and Hazardous
Materials Sites of Concern

April 2012



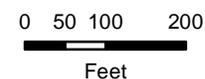
Sites of Concern

- High
- Moderate
- Low
- Proposed Parking (PP) Acquisition Sites

- RM** Rail Milepost
- Railroad Centerline (proposed)
- Railroad Centerline (existing)
- Right of Way (existing)
- Cut Line
- Fill Line

- Crossing panel
- Wetland (existing)
- Clear and Grub Area
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