

MEMORANDUM OF AGREEMENT
Among
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON STATE HISTORIC PRESERVATION OFFICER
And
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
To
RESOLVE THE ADVERSE EFFECTS OF
THE ALASKAN WAY VIADUCT REPLACEMENT PROJECT

WHEREAS, The Washington State Department of Transportation (WSDOT) will construct the Alaskan Way Viaduct Replacement Project (the Project) by replacing portions of State Route 99, a north-south elevated highway passing through the City of Seattle, WA, with a proposed north-south bored tunnel; and

WHEREAS, the U.S. Department of Transportation, Federal Highway Administration (FHWA) plans to provide assistance to the Project pursuant to the Federal-Aid Highway Program as described in Title 23 USC §101 et seq.; and

WHEREAS, FHWA has determined that the Project is an undertaking, as defined in 36 CFR §800.16(y), and thus is subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 USC §470f and its implementing regulations, 36 CFR §800; and

WHEREAS, FHWA and WSDOT have consulted with the Washington State Historic Preservation Officer (SHPO), interested and affected Native American tribes, and other parties with a demonstrated interest in the effects of the Project on historic properties pursuant to 36 CFR §800.2; and

WHEREAS, FHWA and WSDOT, in consultation with the SHPO, the tribes, and the consulting parties, have identified historic properties within the Area of Potential Effects (APE) in compliance with 36 CFR §800.4; and

WHEREAS, FHWA, in consultation with the SHPO, has determined that the undertaking will have an adverse effect to historic properties, consisting of historic buildings and archaeological sites, listed in or eligible for listing in the National Register of Historic Places (National Register) in compliance with 36 CFR §800.5; and

WHEREAS, the affected historic properties include the Alaskan Way Viaduct/Battery Street Tunnel, two contributing properties to the Pioneer Square Historic District, the Polson Building and the Western Building, the Pioneer Square Historic District, archaeological site 45KI924, and a portion of the historic Lake Union Sewer Line; and

WHEREAS, the adverse effects of the Project to the Alaskan Way Viaduct/Battery Street Tunnel have been resolved by means of a separate Memorandum of Agreement (MOA) between FHWA, WSDOT, and the SHPO; and

WHEREAS, FHWA has invited the Advisory Council on Historic Preservation (ACHP) to participate in consultations concerning the effects of the Project on historic properties and resolution of adverse effects, and ACHP has declined to participate in such consultations; and

WHEREAS, FHWA has consulted with the following federally recognized Native American tribes regarding the undertaking and its potential to affect historic properties of religious and cultural significance to the tribes:

Muckleshoot Indian Tribe, Suquamish Tribe, Tulalip Tribes, Snoqualmie Indian Tribe, the Confederated Bands and Tribes of the Yakama Nation, Jamestown S’Klallam, Port Gamble S’Klallam, and Lower Elwha Klallam; and

WHEREAS, FHWA, in response to interest in the Project identified through tribal consultation, has invited the Muckleshoot Indian Tribe, the Suquamish Tribe, the Tulalip Tribes, the Snoqualmie Indian Tribe, and the Confederated Bands and Tribes of the Yakama Nation, hereafter the tribes, to be concurring parties to this MOA; and

WHEREAS, this MOA is not intended to impair or waive any obligations or rights of any party to the agreement under applicable state or federal laws regarding archaeological resources, cultural resources, human remains, or historic sites; and

WHEREAS, FHWA, has consulted with King County, WA; City of Seattle, WA; the National Trust for Historic Preservation; the Washington Trust for Historic Preservation; Historic Seattle; The Alliance for Pioneer Square; 4Culture; and, Benjamin and Lois Mayers and has invited them to be concurring parties to this MOA; and

WHEREAS, this Project remains controversial, and as such, execution of this Agreement as a concurring party does not necessarily indicate that the party has a particular view regarding the preferred alternative, but rather indicates the desire of such parties to remain involved in implementation of the terms of this Agreement; and

WHEREAS, under the *First Amended Programmatic Agreement Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State Administered by the Federal Highway Administration*, FHWA, ACHP, WSDOT, and SHPO have agreed to delegate certain authorities relating to Section 106 of the NHPA to WSDOT for Federal-aid Highway projects in Washington State; and

WHEREAS, WSDOT, acting on behalf of FHWA, will carry out the terms of this MOA; however, FHWA will be responsible for ensuring that all the requirements of the MOA are met; and

WHEREAS, WSDOT will ensure that a qualified Cultural Resources Specialist, as defined in the *First Amended Programmatic Agreement Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State Administered by the Federal Highway Administration*, oversees the implementation of all commitments contained in this Agreement for the duration of the Project.

NOW THEREFORE, FHWA, SHPO and WSDOT, agree that the Project shall be implemented with the following stipulations in order to take into account the effects of the Project on historic properties.

Background

A map of the APE for the Project, as determined after consultation with the consulting parties, appears as Appendix A of this MOA.

The historic properties identified within the APE for the Project are described in the second *Supplemental Draft Environmental Impact Statement, Appendix I, Historic, Cultural, and Archaeological Resources Discipline Report Alaskan Way Viaduct Replacement Project*, published in October 2010.

The stipulations below use the term “DAHP” (Washington State Department of Archaeology & Historic Preservation) when referring to participation by SHPO and DAHP staff.

Stipulations

FHWA shall ensure that the following stipulations are carried out:

I. Requirements for all Historic Buildings

WSDOT will avoid or minimize direct adverse effects of the Project to historic buildings in the APE as described below.

A. Monitoring Historic Buildings

1. WSDOT, through its Design-Build contractor, will develop a deformation analysis report. The deformation analysis report will identify the amount of ground deformation that each individual building within the zone of influence can tolerate. The zone of influence is the area within the APE in which ground deformation resulting from the Project may occur. The report will include the historic buildings listed in Appendix B. Appendix C presents a map showing the location of these historic buildings within the zone of influence. At a minimum, the deformation analysis report will include:
 - a. The proposed type and location of instrumentation and installation methods used to monitor the historic buildings within the zone of influence before, during and after the proposed tunneling to verify that ground deformations are within predicted and tolerable limits (See Stipulation I.B below). At a minimum, the monitoring instrumentation and installation will be as follows:

- (i) Multiple Point Borehole Extensometer (MPBX) - MPBXs will be located approximately every 50 feet from S. King Street to Spring Street and every 100 feet from Spring Street to Thomas Street;
 - (ii) Inclinator - Inclinator will be approximately located at every cross street relatively perpendicular to the tunnel, decreasing in frequency with increasing distance away from the centerline of the tunnel; and
 - (iii) Near Surface Settlement Points (NSSP) - NSSP will be located approximately every 50 feet from S. King Street to Spring Street and approximately every 25 feet (skipping locations where an MPBX is located) from Spring Street to Thomas Street.
2. Sixty-two buildings within the zone of influence will be monitored for deformation. (Note: In some cases, two or more “buildings” are actually a single structure and must be monitored as such). A list of the historic buildings along with the preliminary instrumentation required for monitoring is provided in Appendix B. WSDOT, through its Design-Builder will refine the preliminary instrumentation, as design progresses.
 3. WSDOT, through its Design-Builder, will monitor these historic buildings for the duration of the proposed tunneling scheduled for completion by the end of 2015. It is expected that all historic buildings will be monitored for a period of twelve (12) to eighteen (18) months after the tunnel boring machine passes underneath the historic buildings. If deformation monitoring indicates continued progressive settlement at that time, WSDOT would extend monitoring.

B. Settlement Management Plan

1. WSDOT requires the Design-Builder to prepare a settlement management plan for each building prior to start of the proposed tunneling. These plans use the analysis from the deformation analysis report to establish building specific “Alert” and “Maximum” ground deformation thresholds. Settlement management plans will identify the general actions to be taken by the Design-Builder during tunnel boring if the “Alert” threshold is triggered. If those actions do not prevent additional ground deformation from occurring, and “Maximum” thresholds are triggered, additional measures will be implemented to arrest ground movement. These measures include, but are not limited to, tail-skin grouting, pressure adjustments to the cutting head, grouting through the tunnel lining, and grouting from the surface adjacent to the affected building. The measures will be developed at the time the trigger occurs, and will be designed specifically to address the problem at hand. At a minimum, the settlement management plans will include the measures to be taken by the Design-Builder, as applicable, to:
 - a. Limit further ground movement;

- b. Limit further decrease (or increase) in groundwater and piezometric levels;
 - c. Control vibrations;
 - d. Add instrumentation or change reading frequency as appropriate;
 - e. Maintain the structural integrity of adjacent structures and utilities;
 - f. Develop an emergency response plan / traffic / utility diversion or other contingency plans;
 - g. Develop communication protocols / notification procedures;
 - h. Develop the criteria for action if deformations continue to increase beyond “Alert” and “Maximum” thresholds; and
 - i. Identify, when construction has been stopped, the criteria for resuming construction after corrective measures have been implemented.
2. Settlement will be monitored on a continual basis during tunnel boring by a monitoring team. The monitoring team will meet daily during the tunnel boring to ensure that corrective actions are taken, if needed, during the tunnel boring operation in accordance with the settlement management plans for each building. WSDOT will provide the names and qualifications of the monitoring team members to DAHP and the other consulting parties.
 3. WSDOT will provide to DAHP and the other consulting parties the settlement management plans for each historic building as they are completed.
 4. Should the “Maximum” thresholds be triggered as identified in the settlement management plan for any historic building, WSDOT and FHWA will notify DAHP.
 5. WSDOT, FHWA and DAHP will agree on a licensed architect with a background in historic architecture who meets the professional qualifications standards cited in Stipulation VI to review the settlement management plan for each historic building as and when appropriate.

C. Claims and Repairs to Historic Buildings

WSDOT, in consultation with DAHP, will establish a claims and repair process by which owners of buildings, including historic buildings, can file claims for damages to their properties that may result from the Project.

1. WSDOT, in consultation with DAHP, will ensure that an architect with a background in historic architecture meeting the requirements of Stipulation VI will participate in the claims and repairs process involving any historic buildings within the APE. This will include claims review, damage inspections, cost estimates, repair recommendations, and damage repair.
2. WSDOT will ensure that all repair work on historic buildings shall follow the Secretary of the Interior's Standards for the Treatment of Historic Properties and shall be done in compliance with the City of Seattle's Municipal Code, as appropriate, with review and approval, as required, by the Seattle Landmarks Preservation Board, the Pioneer Square Preservation Board, the Pike Place Market Historical Commission; or DAHP, for National Register eligible but not locally designated buildings.
3. The claims and repair process will include the following:
 - a. The damage claim submittal process;
 - b. The process by which damage claims will be inspected and evaluated;
 - c. The process for and personnel involved in preparing damage evaluations, repair cost estimates, findings and recommendations;
 - d. The process for making and documenting repairs based on the reported cost estimates and recommendations; and
 - e. The process for making appeals.
4. The claims and repair process will be in effect for the duration of the proposed tunneling scheduled for completion by the end of 2015. Property owners will retain the right to file a claim if damage is detected post-construction and the owner believes it to be a result of tunneling.

D. Emergency Situations

In the unlikely event that any one of the historic buildings listed in Appendix B suffers significant structural damage warranting emergency measures, the following steps will be taken:

1. WSDOT, through its Design-Builder, shall take immediate steps to stabilize the building and protect the public.
2. FHWA and WSDOT shall reopen Section 106 consultation with DAHP and the other consulting parties. Efforts to avoid, minimize, or mitigate adverse

effects will be developed on a case-by-case basis in consultation with DAHP and the other consulting parties.

3. WSDOT shall consult with DAHP and the other consulting parties, as well as the property owner. WSDOT will explain the steps taken to stabilize the building and the nature and extent of the damage to the building and its historic characteristics. WSDOT, in consultation with DAHP and the other consulting parties, shall determine what, if any, mitigation is warranted.
4. If WSDOT determines that mitigation is warranted, WSDOT will consult with the property owner, DAHP and the other consulting parties to prepare and implement a mitigation plan. Mitigation will be conducted in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

II. Additional Requirements for Historic Buildings within the Pioneer Square Historic District

WSDOT will avoid, minimize, or mitigate the direct adverse effects of the Project to historic buildings that are contributing elements to the Pioneer Square Historic District (PSHD). The following measures will resolve the direct adverse effects of the Project to PSHD as described below.

A. 1 Yesler Way Building

WSDOT will avoid direct adverse effects of the Project to the 1 Yesler Way Building in the following manner.

1. Install micro piles below grade to the west of the western wall of the 1 Yesler Way Building prior to the proposed Project tunneling.
2. Monitor the 1 Yesler Way Building in accordance with the monitoring provisions in Stipulation I.A. See Appendix B for building specific monitoring information.
3. Follow the provisions for intervention, if warranted, in accordance with the settlement management plan developed under Stipulation I.B.
4. Follow the claims and repair process, if warranted, in accordance with Stipulation I.C.
5. Ensure that all work is done in compliance with the City of Seattle's Municipal Code, as appropriate, with review and approval, as required, by the Pioneer Square Preservation Board.

B. Polson Building

WSDOT will minimize the adverse effects of the Project to the Polson Building in the following manner.

1. Inject compensation grouting below grade to offset any settlement from the proposed tunneling.
2. Monitor the Polson Building in accordance with the monitoring provisions in Stipulation I.A. See Appendix B for building specific monitoring information.
3. Follow the provisions for intervention, if warranted, in accordance with the settlement management plan developed under Stipulation I.B.
4. Follow the claims and repair process, if warranted, in accordance with Stipulation I.C.
5. Ensure that all work is done in compliance with the City of Seattle's Municipal Code, as appropriate, with review and approval, as required, by the Pioneer Square Preservation Board.

C. Western Building

1. WSDOT will mitigate the adverse effects of the Project to the Western Building by implementing a building protection solution that achieves the following outcomes:
 - a. Provides reasonable assurance that the building will be returned to the owner at the conclusion of the proposed tunneling in a condition essentially comparable to the pre-tunnel condition with only minor repair required;
 - b. Protects the Polson Building from potential damage that may be a consequence of damage to the Western Building; and
 - c. Protects the public.
2. WSDOT has prepared a conceptual design that demonstrates the feasibility of achieving the outcomes stated above. The principal elements of the design include:
 - a. Foundation stabilization;
 - b. Stabilization of cracked columns, beams, and walls;

- c. Positive connection of floors, beams, and columns;
 - d. Temporary interior shoring and bracing;
 - e. A temporary exterior steel frame; and
 - f. A regime of compensation grouting.
3. All work associated with the Western Building stabilization will be accomplished in consultation with DAHP and in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Any necessary repair work following tunneling activities and removal of temporary shoring and bracing will be accomplished in consultation with DAHP and in accordance with the Secretary's Standards.
4. Additionally WSDOT will:
- a. Monitor the Western Building in accordance with the monitoring provisions in Stipulation I.A. See Appendix B for building specific monitoring information;
 - b. Follow the provisions for intervention, if warranted, in accordance with the settlement management plan developed under Stipulation I.B;
 - c. Follow the claims and repair process, if warranted, in accordance with Stipulation I.C; and
 - d. Ensure that all work is done in compliance with the City of Seattle's Municipal Code, as appropriate, with review and approval, as required, by the Pioneer Square Preservation Board.

III. Requirements for the Pioneer Square Historic District

WSDOT will avoid potential indirect adverse effects that may occur to PSHD as a result of the Project by developing and implementing a number of plans and opening a project information center, as further described below. The purpose of these efforts is to inform and educate the community, both within and outside of PSHD, about the Project and about the steps WSDOT will take to avoid disruption to PSHD during the Project.

A. Communication Plan

- 1. The following are the Project goals for the communication plan:
 - a. Inform the public, business owners, and residents about Project-related construction in and near PSHD;

- b. Assist the community in navigating through and around PSHD during different phases of Project construction; and
 - c. Provide an opportunity for the community to offer feedback on WSDOT's ongoing communication efforts.
2. To achieve these goals, WSDOT has developed and annually updates a neighborhood communications plan, which provides customized communication and outreach to those affected by Project-related construction. Some of the methods listed below have already been implemented by WSDOT, and will continue in PSHD as long as they are effective. These methods include:
- a. Monthly articles in The Alliance for Pioneer Square (The Alliance) newsletter;
 - b. Links to The Alliance and Pioneer Square websites;
 - c. Neighborhood-specific email updates;
 - d. Door-to-door outreach;
 - e. Participation in neighborhood events;
 - f. Information booths; and
 - g. New Pioneer Square Blog updates.

B. Project Information Center

1. The following are the Project goals for the project information center:
- a. Create a place that draws visitors to PSHD and educates them about the past, present, and future of PSHD;
 - b. Provide a Project information resource to the public, as well as the residents and businesses in PSHD;
 - c. Enhance WSDOT's public outreach and communication efforts for the Project; and
 - d. Spotlight the unique historical, archaeological, and engineering aspects of the Project.
2. To achieve these goals, WSDOT will:

- a. Locate the project information center within PSHD;
- b. Use the project information center to provide information and educational opportunities to the public, the residents, and businesses in PSHD;
- c. Staff the project information center and provide space to The Alliance, and other community organizations, as appropriate, to distribute informational materials related to PSHD;
- d. Provide, in consultation with The Alliance, information about the Project, PSHD, businesses, coming events and attractions, walking tours, and other relevant information;
- e. Work with The Alliance to support their ongoing efforts to promote PSHD;
- f. Develop educational displays on the history and archaeology recovered during the Project, including a display of artifacts;
- g. Provide information about and displays on the design and construction of the proposed bored tunnel;
- h. Offer space to other projects in the vicinity, such as the Waterfront Seattle and Elliott Bay Seawall projects, to provide information to the public;
- i. Coordinate with the Klondike Museum to identify possible sharing of resources, volunteer historians, connections with local schools, and hours of operation;
- j. Prepare and circulate a plan describing the purpose, goals, and implementation for the project information center to DAHP and the other consulting parties in the summer of 2011;
- k. Set a goal to open the project information center in the fall of 2011, and open the project information center no later than the beginning of proposed tunneling; and
- l. Keep the project information center open until the conclusion of significant Project-related construction activities within and adjacent to PSHD.

C. Marketing Activities

WSDOT will coordinate with The Alliance to develop and implement marketing activities directed to the public outside of PSHD in accordance with the process described below. The marketing activities will communicate to the public that

PSHD will be open for business for the duration of significant Project-related construction activities within and adjacent to PSHD.

1. The following are the Project goals for the marketing activities:
 - a. Spread the message that PSHD is an attractive, historically vibrant neighborhood, and the internationally unique Project-related construction that is happening in real time is yet another reason to come to PSHD;
 - b. Highlight positive things that are going on in PSHD such as events, unique offerings, sales, and educational opportunities; and
 - c. Increase the availability of Project information to visitors to PSHD as well as residences and local businesses within PSHD.
2. To achieve these goals WSDOT will:
 - a. Work with The Alliance to integrate the project's marketing efforts with theirs, creating and implementing a seamless package of marketing materials and activities.
 - b. With The Alliance, prepare materials and implement activities that may include:
 - (i) Brochures, fliers, maps and banners;
 - (ii) Video, websites, podcasts and social media; and
 - (iii) Advertising on radio and television and in other media.
 - c. Conduct a series of discussions with The Alliance and others as appropriate to ensure that the marketing activities are identified and implemented on the same timeframe as the project information center, and in conjunction with The Alliance's marketing activities.
 - d. Meet at regular intervals with The Alliance and others as appropriate to determine the marketing program effectiveness, allowing for adjustments as indicated by our collective experience.

D. Traffic Management and Construction Coordination Plan

1. The following are the Project goals for the traffic management and construction coordination plan:

- a. Facilitate efficient movement of vehicles to and through PSHD during construction; and
 - b. Avoid potential conflict between construction projects that overlap in time and space.
2. To achieve these goals, WSDOT is in the process of developing and implementing a traffic management and construction coordination plan for the Project area, including PSHD. The purpose of this plan is to proactively reach out to local businesses, residents and the media about lane and road closures, detours and loss of parking, and other potential Project-related disruptions to travel. WSDOT is currently working with other agencies to ensure construction is coordinated among various projects in PSHD, the SODO neighborhood, and throughout the region. Elements of the plan include the following:
- a. Regular meetings to coordinate construction activities with the Seattle Department of Transportation (SDOT), Seattle City Light (SCL), Sound Transit, King County Metro, the Port of Seattle and others;
 - b. Regular meetings with Qwest and Safeco Fields' management to coordinate advance special event schedules;
 - c. Regular construction coordination briefings with other agencies including SDOT, the Seattle Police Department (SPD), King County Metro and SCL to provide a three week construction look ahead, a chance to voice concerns about any upcoming closures, and a chance to ask the Project Engineer questions about upcoming construction;
 - d. Regular emails concerning construction closure information sent to other agencies and posted to the WSDOT and SDOT websites;
 - e. Media relations and public outreach campaigns to alert drivers of upcoming construction closures;
 - f. Targeted emails or visits from Project staff to residents and businesses nearest to construction work to alert those individuals most directly affected by upcoming construction;
 - g. Interagency communications protocols with SDOT, SPD, SCL, the Port of Seattle, and King County Metro to ensure that agencies are in contact at all times to effectively address unforeseen issues or incidents affecting traffic near or through work zones; and

- h. Traffic information provided to drivers via electronic message boards, the web, email updates, or other media as appropriate to alert travelers to and through the Project area.

IV. Requirements for Archaeological Sites and Sensitive Areas

WSDOT will avoid, minimize and mitigate the adverse effects of the Project on archaeological sites eligible for listing in the National Register and archaeologically sensitive areas that have the potential to contain archaeological deposits eligible for listing in the National Register through the development of an Archaeological Treatment Plan (Treatment Plan).

A. Treatment Plan – General Requirements

WSDOT, in consultation with DAHP, King County, the tribes and other consulting parties, will prepare a Treatment Plan for the Project. The Treatment Plan will guide the actions of cultural resources professionals, who meet the requirements of Stipulation VI, during its implementation for all identified archaeological sites, archaeologically sensitive areas, and all areas to be monitored for significant archaeological deposits.

1. The Treatment Plan shall:
 - a. Describe the Project actions affecting the sites and sensitive areas;
 - b. Describe the sites and sensitive areas;
 - c. Summarize the natural and cultural setting of the sites and sensitive areas;
 - d. Summarize the geomorphology of the area;
 - e. Summarize previous archaeological investigations relevant to the sites and sensitive areas;
 - f. Identify the research domains for sites 45KI958 and 45KI924 and the archaeologically sensitive areas;
 - g. Identify feature types, other information bearing deposits, and/or artifacts needed to address the research domains for the sites and sensitive areas;
 - h. Describe appropriate field and analytical methods to be used for archaeological testing and data recovery;
 - i. Outline reporting requirements;

- j. Provide for the collection of display quality artifacts from archaeological deposits that are not eligible for listing in the National Register;
- k. Describe curation arrangements for recovered archaeological materials;
- l. Describe measures to disseminate information to the public; and
- m. Explain that all archaeological investigations will be conducted by archaeologists with a background in either historic archaeology or prehistoric archaeology, as appropriate, meeting the requirements of Stipulation VI.

2. Unanticipated Archaeological Discoveries

A plan for unanticipated archaeological discoveries made during construction will be developed as part of the Treatment Plan. The unanticipated archaeological discovery plan shall:

- a. Describe pre-construction requirements to educate Project personnel and construction contractors about archaeological resources;
- b. Describe what steps will be taken to secure and protect a discovery;
- c. Describe what steps will be taken to notify WSDOT of a discovery; and
- d. Describe the procedures WSDOT will follow in determining the National Register eligibility of the discovery and the Project's potential for adverse effect. These procedures will include the following requirements:
 - (i) WSDOT will make its determinations of eligibility and effect in consultation with DAHP, as well as the tribes if the discovery is Native American in origin;
 - (ii) If WSDOT determines the discovery is eligible for listing in the National Register and may be adversely affected, WSDOT will consult with DAHP, King County, and other consulting parties, as well as the tribes if the discovery is Native American in origin, to determine appropriate treatment of the archaeological deposits;
 - (iii) WSDOT will consult with the tribes if Native American archaeological deposits or cultural materials are discovered to ensure that treatment of the discovery may be monitored by tribal personnel if so desired by the tribes; and

- (iv) WSDOT will obtain approval by DAHP in accordance with permit requirements under RCW 27.53 for removal of any archaeological deposits determined eligible for listing in the National Register.

3. Archaeological Monitoring

A plan for archaeological monitoring during construction will be developed as part of the Treatment Plan. The archaeological monitoring plan shall:

- a. Describe the general archaeological monitoring procedures to be followed during construction anywhere archaeological monitoring is needed within the APE. The monitoring plan will also describe the specific monitoring procedures to be followed at:
 - (i) Each archaeological site;
 - (ii) Each archaeologically sensitive area;
 - (iii) The location of micro piles to be installed at the Western Building;
 - (iv) The location of the grouting shaft to be excavated at the Western and the Polson buildings; and
 - (v) The location of any other grouting shafts that may be determined necessary as additional measures to arrest ground movement as referenced in Stipulation I.B.1.
- b. Describe how the monitoring procedures will be coordinated with construction at each monitoring location; and
- c. Describe the procedures WSDOT will follow if the archaeological monitor identifies deposits that are potentially eligible for listing in the National Register. These procedures will include the following requirements:
 - (i) If upon inspection WSDOT confirms the presence of archaeological deposits eligible for listing in the National Register, WSDOT will declare the deposits an unanticipated archaeological discovery and will follow the provisions of Stipulation IV.A.2.

4. Unanticipated Discovery of Human Remains

A plan for the unanticipated discovery of human remains will be developed as part of the Treatment Plan. In order to comply with permit requirements under RCW 27.53, DAHP shall approve the plan for the unanticipated discovery of human remains. The plan for the unanticipated discovery of human remains will inform Project personnel about the requirements relating

to the inadvertent discovery of human skeletal remains under RCW 27.44.055 and RCW 68.60.55, and will provide Project personnel with a clear understanding of the process to be followed. The plan for the unanticipated discovery of human remains shall:

- a. Describe pre-construction requirements to educate Project personnel and construction contractors about human remains. These requirements will include the following:
 - (i) WSDOT will ensure that a handout is developed for distribution to the construction crews that explains the legal requirements to report discovery of human remains and the procedures that must be followed in a discovery situation.
- b. Describe what steps will be taken to secure and protect a discovery of human remains;
- c. Describe what steps will be taken to notify the coroner, local law enforcement, and DAHP; and
- d. Describe what steps will be taken by either the coroner or DAHP, including the protocol followed by DAHP, if the human remains are determined to be Native American in origin. These steps will include the following:
 - (i) If Native American human remains are discovered, DAHP shall work closely with affected tribes regarding the protection, treatment and disposition of the remains in accordance with applicable state law.
 - (ii) WSDOT shall ensure that the location of any inadvertently discovered Native American human remains is not released to the public in accordance with applicable state and federal law.

B. Treatment Plan – Specific Requirements

In addition to the general requirements outlined in Stipulation IV.A, the Treatment Plan will contain the following requirements for specific archaeological sites and archaeologically sensitive areas as follows.

1. Site 45KI958 - SDOT Maintenance Yard Site

Historic archaeological site 45KI958, located in the North Portal construction area, may be eligible for listing in the National Register; however, this must be determined during construction. For this reason, the Treatment Plan shall:

- a. Describe the methods that will be used to test the site for National Register eligibility, as required under Stipulation IV.A.1.h;
- b. Describe the procedures that WSDOT will follow in determining National Register eligibility and effect if archaeological deposits are encountered. These procedures will include the following requirements:
 - (i) WSDOT will consult with DAHP to determine the National Register eligibility of the site and the potential for adverse effects;
 - (ii) If, following consultation, WSDOT determines the site is eligible for listing in the National Register, and may be adversely affected, WSDOT will consult with DAHP, King County, and other consulting parties and conduct data recovery in accordance with the Treatment Plan; and
 - (iii) WSDOT will obtain approval by DAHP in accordance with permit requirements under RCW 27.53 for removal of any archaeological deposits determined eligible for listing in the National Register.

2. Site 45KI924 - Dearborn South Tideland Site

Historic archaeological site 45KI924, located in the South Portal construction area, will be adversely affected by Project construction. Site 45KI924 is National Register eligible; however, those portions of the site that will be affected by the undertaking may not contain archaeological deposits that contribute to the site's eligibility. For this reason, the Treatment Plan shall:

- a. Describe procedures to be followed for archaeological monitoring during construction, as required under Stipulation IV.A.3;
- b. Describe the procedures WSDOT will follow if archaeological deposits are encountered. The procedures will include the following requirements:
 - (i) WSDOT, in consultation with DAHP, will determine whether or not the archaeological deposits contribute to the National Register eligibility of site 45KI924;
 - (ii) If WSDOT determines the deposits do contribute to the National Register eligibility of site 45KI924, and these deposits may be adversely affected, WSDOT will consult with DAHP, King County, and other consulting parties, and conduct data recovery in accordance with the Treatment Plan; and

- (iii) WSDOT will obtain approval by DAHP in accordance with permit requirements under RCW 27.53 for removal of any archaeological deposits determined eligible for listing in the National Register.

3. Archaeologically Sensitive Areas

WSDOT has identified four archaeologically sensitive areas within the APE that have the potential to contain National Register eligible historic properties. Each of these areas will require archaeological monitoring and / or investigation during construction. The Treatment Plan will outline the procedures to be followed for monitoring and / or investigation at each archaeologically sensitive area. The archaeologically sensitive areas are described below.

- a. Archaeologically Sensitive Area 1, North Portal construction area. WSDOT has identified site 45KI958 and a buried peat horizon at the location of the North Portal construction area. These deposits may contain prehistoric and historic archaeological deposits that could be revealed during Project construction activities. As outlined in Stipulation IV.B.1, site 45KI958 will be investigated for National Register eligibility. As part of this investigation, additional testing of the buried peat horizon will also be conducted. Monitoring and investigation procedures for Archaeologically Sensitive Area 1 will be outlined in the Treatment Plan.
- b. Archaeologically Sensitive Area 2, South Portal construction area. WSDOT has identified site 45KI924 and a buried tidal flat at the South Portal construction area. These deposits may contain prehistoric and historic archaeological deposits that could be revealed during Project construction activities. As outlined in Stipulation IV.B.2, the limited portion of site 45KI924 that will be affected by construction will be monitored for the presence of deposits that are eligible for listing in the National Register. In addition to the monitoring of site 45KI924, the location of the buried tidal flat in this area will be exposed and investigated during Project construction to determine if archaeological deposits are present. Monitoring and investigation procedures for Archaeologically Sensitive Area 2 will be outlined in the Treatment Plan.
- c. Archaeologically Sensitive Area 3, Yesler Way to Seneca Street. WSDOT has identified a buried tidal flat between Yesler Way and Seneca Street. These deposits may contain buried historic and prehistoric archaeological deposits that could be revealed during construction of a compensation grout shaft. The elevations at which this shaft intersects with potential archaeological deposits will be investigated and monitored during construction. Monitoring and investigation procedures for Archaeologically Sensitive Area 3 will be outlined in the Treatment Plan.

- d. Archaeologically Sensitive Area 4, Pike Street to Bell Street. WSDOT has identified buried anthropogenic deposits between Pike Street and Bell Street along the current Alaskan Way Viaduct alignment. The deposits may contain buried historic and prehistoric archaeological deposits. The deposits may be affected by the relocation of utilities. Construction activities with the potential to intersect these deposits will be monitored. Monitoring procedures for Archaeologically Sensitive Area 4 will be outlined in the Treatment Plan.

V. Requirements for Other Historic Properties

A portion of the Lake Union Sewer Line, constructed between 1891 and 1894, is in the North Portal construction area. FHWA and WSDOT, in consultation with DAHP, have determined that the Lake Union Sewer Line is eligible for listing in the National Register. Approximately five feet of a brick-lined manhole, which is a contributing element of the Lake Union Sewer Line, will be removed resulting in an adverse effect to the historic property. WSDOT will mitigate the adverse effect of the Project to the Lake Union Sewer Line by recording the structure and researching its history as part of a National Register nomination form that WSDOT will prepare. DAHP and King County, the owner of the resource, will receive a copy of the nomination form upon completion.

VI. Qualifications

FHWA and WSDOT shall ensure that all investigations performed in compliance with the terms of this MOA shall be conducted by, or under the supervision of, a person who meets the Secretary of the Interior's Standards and Guidelines for professional qualifications in history, architecture, architectural history, historic architecture or archaeology, as applicable, described in the Federal Register: June 20, 1997 (Volume 62, Number 119, pages 33707-33723).

VII. Continued Consultation

Following the execution of this MOA, and for the duration of the Project, WSDOT will continue to meet with the consulting parties to review the performance of this MOA.

- A. WSDOT will consult with the consulting parties at the following times:
 1. After draft completion of the Treatment Plan for review and comment;
 2. Every three months (Quarterly); or,
 3. At the request of the consulting parties collectively or individually.
- B. WSDOT will facilitate field visits for the consulting parties upon request.

- C. WSDOT will continue to meet separately with the tribes on a monthly basis. Tribal members are welcome to participate in the quarterly meetings with the consulting parties or to request an individual meeting with WSDOT at any time.

VIII. Dispute Resolution

- A. All signatories and concurring parties to this MOA shall strive to address and resolve disagreements informally.
- B. In the event that informal resolution cannot be achieved, any signatory or concurring party to this MOA may object in writing to FHWA or WSDOT regarding any action carried out or proposed with respect to implementation of this MOA. The agency receiving the objection shall, within 10 days, initiate consultation with the objecting party to resolve the objection.
- C. If after initiating such consultation FHWA or WSDOT determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to ACHP, including the agency's proposed response to the objection.
- D. Within 30 days after receipt of all pertinent documentation, ACHP shall exercise one of the following options:
 - 1. Advise FHWA that ACHP concurs with the agency's proposed response to the objection, whereupon FHWA will respond to the objection accordingly;
 - 2. Provide FHWA with recommendations, which the agency shall take into account in reaching a final decision regarding its response to the objection; or
 - 3. Notify FHWA that the objection will be referred for comment pursuant to 36 CFR §800.7(a)(4), and proceed to refer the objection and comment;
- E. FHWA shall take the resulting comment into account in accordance with 36 CFR §800.7(c)(4), with reference only to the subject of the dispute.
- F. FHWA's responsibility to ensure that all actions under this MOA that are not the subject of the dispute are carried out will remain unchanged.

IX. Amendment

Any signatory to this MOA may request that it be amended, whereupon the signatories will consult to reach a consensus on the proposed amendment. WSDOT and FHWA will seek input from the concurring parties on any proposed amendments. Any amendment to the MOA must be signed by all signatories.

X. Termination

- A. Any signatory to this MOA may terminate it by providing a thirty-day written notice to the other parties, provided that the signatories and concurring parties will consult during the thirty-day period prior to termination to seek agreement on amendments or other actions that would avoid termination.
- B. In the event of termination, FHWA shall comply with 36 CFR § 800 for all remaining actions under this MOA.

XI. Duration of Agreement

This MOA will continue in full force and effect until FHWA grants final acceptance of the Project and all terms of this MOA are met, unless the Project is terminated or authorization for the Project is rescinded.

SIGNATORIES:

Federal Highway Administration

Date




Daniel M. Mathis, Division Administrator

05/26/2011

Washington State Department of Transportation

Date




Ron Paananen, Program Administrator

5/27/2011

State Historic Preservation Officer

Date



Allyson Brooks, Ph.D.

5/26/11

CONCURRING:

City of Seattle



Karen Gordon, City Historic Preservation Officer

Date

28 June 2011

King County

Date

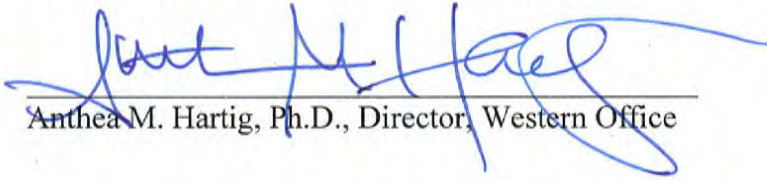


Julie Koler, County Historic Preservation Officer

6/21/11

National Trust for Historic Preservation

Date


Anthea M. Hartig, Ph.D., Director, Western Office

24 June 2011

Washington Trust for Historic Preservation

Date



Jennifer Meisner, Executive Director

6/2/11

Historic Seattle

Date


Kathleen Brooker, Executive Director

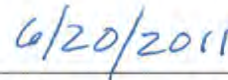
6-7-11

The Alliance for Pioneer Square

Date



Leslie Smith, Executive Director

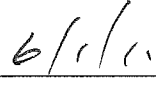


4Culture

Date



Jim Kelly, Executive Director



Benjamin and Lois Mayers

Date

Benjamin and Lois Mayers have declined to sign as a concurring party to the MOA without objection to its contents.

Muckleshoot Indian Tribe

Date

Virginia Cross
Honorable Chairperson Virginia Cross

VC
AE 6-21-11

Suquamish Tribe



Honorable Chairman Leonard Forsman

Date

June 7, 2011

Tulalip Tribes

Date



Honorable Chairman Melvin Sheldon

Snoqualmie Indian Tribe

Date

Honorable Chairperson Shelley Burch

The Snoqualmie Indian Tribe has informed WSDOT that they intend to sign as a concurring party but their signature has not been provided as of August 1, 2011.

Confederated Bands and Tribes of the Yakama Nation

Date

Honorable Chairman Harry Smiskin

As of August 1, 2011, the Confederated Bands and Tribes of the Yakama Nation have not responded to FHWA and WSDOT's request to provide a signature as a concurring party.

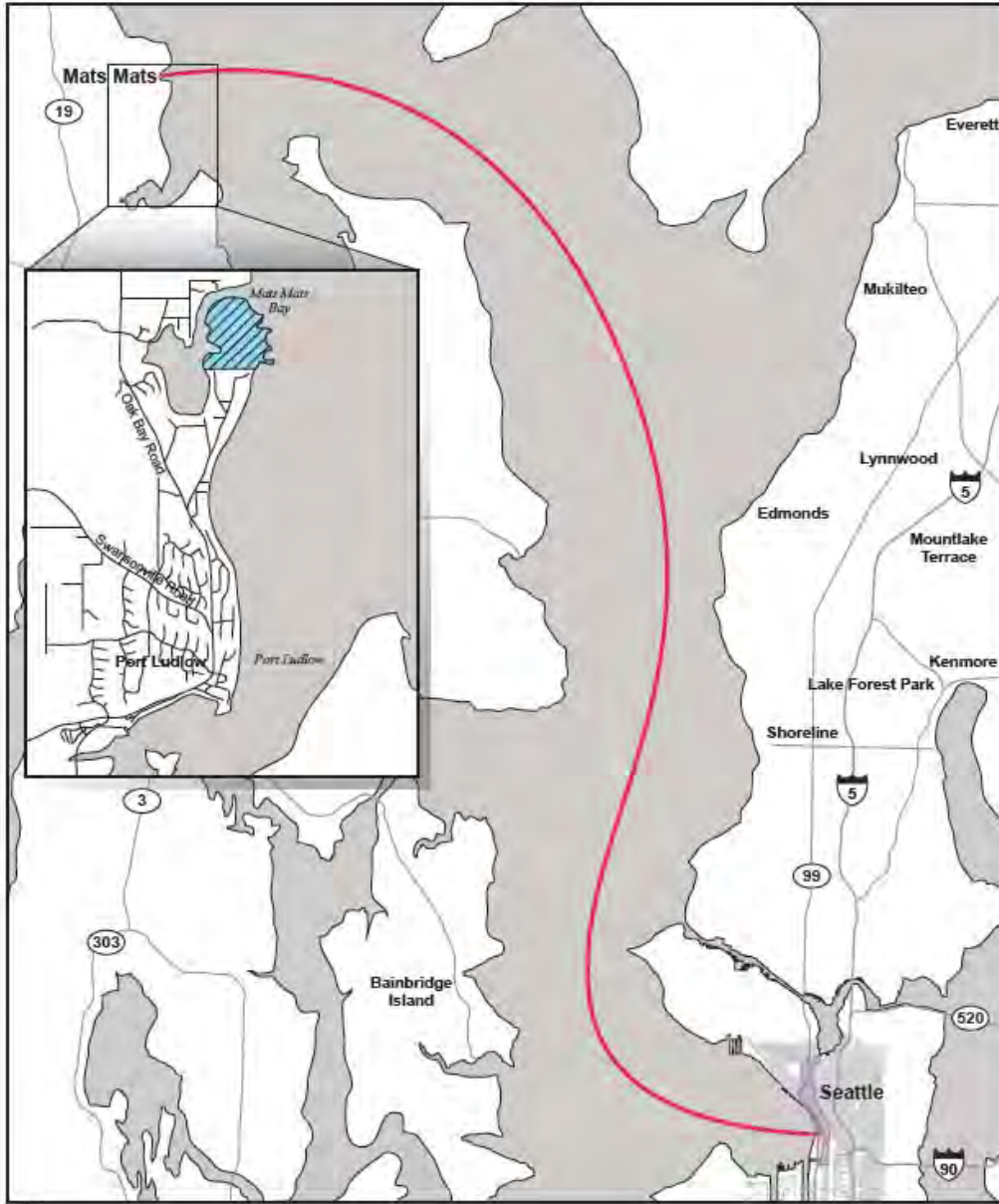
**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX A: AREA OF POTENTIAL EFFECTS (1 OF 2)**



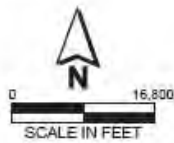
Bored Tunnel APE
 Tunnel Alignment




Alaskan Way Viaduct Replacement Project, Memorandum of Agreement, Appendix A: Area of Potential Effect 1 of 2

**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX A: AREA OF POTENTIAL EFFECTS (2 OF 2)**



3/15/11



-  Existing Mats Mats Quarry
-  Barge Route
-  Bored Tunnel APE

**Alaskan Way Viaduct Replacement Project,
Memorandum of Agreement,
Appendix A:
Area of Potential Effect
2 of 2**

**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX B: LIST OF HISTORIC BUILDINGS TO BE MONITORED**

Key:
 NRHP = National Register of Historic Places
 SL = Seattle Landmark
 PSHD = Pioneer Square Historic District
 PPMHD = Pike Place Market Historic District

ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-056A	A110	500 Wall Street	Archstone Belltown (Grosvenor House)	6	8	12	2	NRHP eligible
H-055A	A112	420 Wall Street	Devonshire Apartments		8	12		NRHP eligible
H-045A	A119	2313 Fourth Avenue	Two Bells Bar and Grill (Two Bells Tavern)	6	4	6		NRHP eligible
H-039A	A123	304 Bell Street	Adams Apartments	4	4	6		NRHP eligible
H-223	A138	2132 Second Avenue	Castle Apartments	4	6	12		Eligible NRHP
H-012A	A141	2125 Second Avenue	Rivoli Apartments		4	2		Eligible NRHP
H-123	A158	911 Western Avenue	Maritime Building		7	6	2	Eligible NRHP
H-87	A160	1 Yesler Way	One Yesler Building (Bedford Hotel)	2	4	4		PSHD
H-056A	A167	500 Wall Street	Archstone Belltown (Grosvenor House)	6	6	8		NRHP eligible

ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-270	T065	120 Sixth Avenue N.	Seattle Housing Authority	2	4	4		NRHP eligible
H-264	T086	2334 Fourth Avenue	Fire Station No. 2	6	6	4		NRHP eligible, SL
H-261	T089	2302 Fourth Avenue	Franklin Apartments		4	8		NRHP eligible
H-227	T117	2124 Third Avenue	Swenson Say Faget (Rex Land Company)		4	2		Eligible NRHP
H-225	T128	2107 Third Avenue	Brasa (Metropolitan Printing Company)	4	4	4		SL, Eligible NRHP
H-206	T136	2000 Second Avenue	Palladian Apartments (Calhoun Hotel)		4	4		Eligible NRHP
H-216	T138	2025 Third Avenue	Pathé Building		4	2		Eligible NRHP
H-202	T147	1926 Second Avenue	Moore Hotel/Theater		5	8		NRHP, SL
H-197	T148	1902 Second Avenue	Josephinum (New Washington Hotel)		4	2		NRHP, SL
H-194	T151	1932 First Avenue	Terminal Sales Building	4	5	6	2	NRHP, SL
H-190	T154	1920 First Avenue	Oxford Apartments	4	4	6		Eligible NRHP

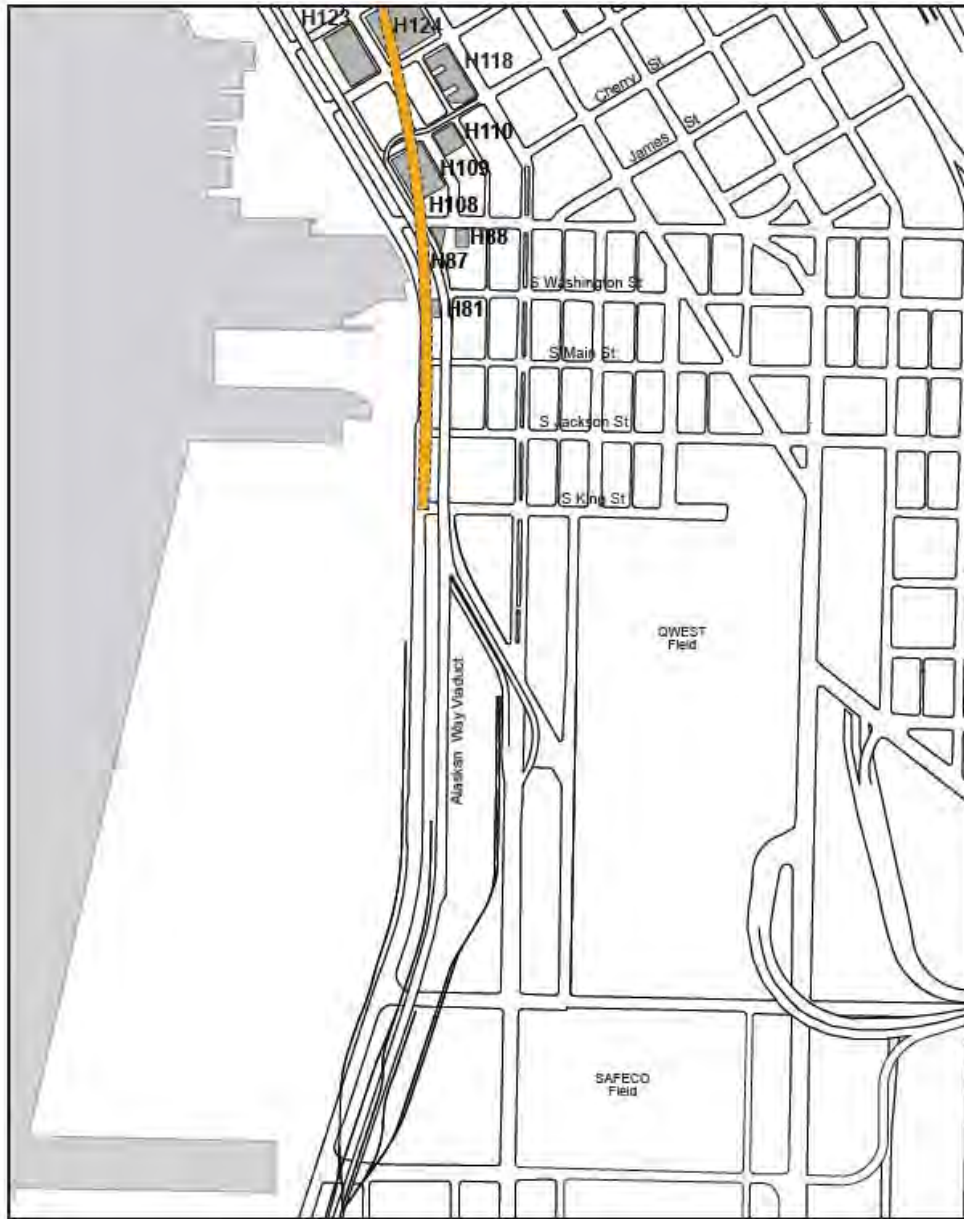
ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-203	T155	1927 Second Avenue	Terminal Sales Annex (Puget Sound News)	2	4	4		SL, Eligible NRHP
H-183	T160	1924 Pike Place	Soames Dunn Building		4	4		PPMHD
H-181	T161	1900 Pike Place/80 Stewart	Stewart House		4	2		PPMHD
H-195	T162	1931 First Avenue	Livingston Baker Apartments	2	4	2		PPMHD
H-188	T164	1923 First Avenue	Smith Block	2	4	2		PPMHD
H-189	T165	1921 First Avenue	Butterworth Building	2	4	2		PPMHD, NRHP
H-187	T166	1915 First Avenue	Alaska Trade Building	2	4	2		PPMHD, NRHP
H-186	T167	1901 First Avenue	Fairmount Apartments	4	4	6		PPMHD
H-176	T173	1600 Pike Place	Garden Center Building		4	4		PPMHD
H-180	T174	86 Pine Street	Inn at the Market	4	5	6		PPMHD
H-180	T175	86 Pine Street	Inn at the Market	2	4	6		PPMHD
H-168	T177	1534 Pike Place	Triangle Building		4	4		PPMHD
H-168	T178	1534 Pike Place	Triangle Building		4	4		PPMHD
H-166	T180	1531 First Avenue	Market House	4	4	4		PPMHD

ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-165	T182	1513 First Avenue	Sanitary Market	4	4	4		PPMHD
H-163	T183	1505 First Avenue	Corner Market	4	4	4		PPMHD
H-174	T184	107 Pine Street	Gatewood Apartments	4	6	12		NRHP eligible
H-175	T188	119 Pine Street	Doyle Building (J.S. Graham Store)		4	4		NRHP, SL
H-171	T191	1501 Second Avenue	Eitel Building		4	4		Eligible NRHP, SL
H-167	T192	1501 Pike Place	Pike Place Market Main Arcade		6	6		PPMHD
H-167	T193	1501 Pike Place	Pike Place Market Main Arcade		8	8		PPMHD
H-156	T194	1430 Western Avenue	La Salle Apartments		4	6		PPMHD
H-156	T198	1430 Western Avenue	La Salle Apartments		4	2		PPMHD
H-148	T203	84 Union Street (1400 Western Avenue)	Marketside Flats (U.S. Immigration Building)		4	4		NRHP, SL
H-157	T204	1423 First Avenue	Economy Market	4	6	8		PPMHD
H-142	T225	1216–1222 First Avenue	Diller Hotel		6	4		Eligible NRHP & SL
H-135	T230	1115–1117 First Avenue	Grand Pacific Hotel	6	10	12		NRHP, SL

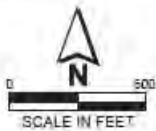
ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-136	T230	1123 First Avenue	Colonial Hotel	3	5	6		NRHP, SL
H-134	T231	1107 First Avenue (94–96 Spring Street)	Watermark Tower (Colman Building)	6	6	12	4	SL
H-126	T234	1000–1024 Western Avenue	National Building	6	7	8		NRHP, SL
H-131	T235	1019–1023 First Avenue	Arlington North (Hotel Cecil)	6	4	4		NRHP, SL
H-129	T236	1013 First Avenue	Arlington South (Beebe Building)	6	4	4		NRHP, SL
H-127	T237	1001–1011 First Avenue	Alexis Hotel (Globe Building)	6	6	6		NRHP, SL
H-130	T238	1018 First Avenue	Holyoke Building		4	2		NRHP, SL
H-128	T239	1012 First Avenue	Schoenfeld Furniture Store Building		4	8		NRHP eligible
H-124	T243	901 First Avenue	Federal Office Building	6	6	16		NRHP
H-118	T247	801–821 First Avenue	Colman Building		5	6		NRHP, SL
H-109	T251	61 Columbia Street	Polson Building	6	4	20	4	PSHD
H-108	T252	619 Western Avenue	Western Building	6	4	30	4	PSHD
H-110	T253	83 Columbia Street	Journal Building		4	2		PSHD

ID Number	Bldg ID	Address	Current Name (Historical Name)	Automated Structure Monitoring Points	Minimum Manual Structure Monitoring Points	Minimum Crack Gauges	Minimum Tiltmeters	Historic Status
H-88	T276	77 Yesler Way	Pioneer Square Hotel (Yesler Hotel)		4	4		PSHD
H-81	T277	114 Alaskan Way S.	Prudential Building		4	6		PSHD

**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX C: MAP OF THE HISTORIC BUILDINGS WITHIN THE ZONE OF
INFLUENCE (1 OF 3)**



4/29/11



 Bored Tunnel

**Historic Buildings
Within the Zone of
Influence (1 of 3)**

**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX C: MAP OF THE HISTORIC BUILDINGS WITHIN THE ZONE OF
INFLUENCE (2 OF 3)**



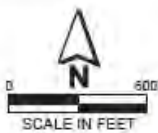
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 Bored Tunnel

**Historic Buildings
Within the Zone of
Influence (2 of 3)**

**ALASKAN WAY VIADUCT REPLACEMENT PROJECT,
MEMORANDUM OF AGREEMENT,
APPENDIX C: MAP OF THE HISTORIC BUILDINGS WITHIN THE ZONE OF
INFLUENCE (3 OF 3)**



 Bored Tunnel

**Historic Buildings
Within the Zone of
Influence (3 of 3)**