

Attachment 17

**Section 4(f) Constructive Use Analysis  
Technical Memorandum**



FINAL ENVIRONMENTAL IMPACT STATEMENT  
AND FINAL SECTION 4(F) AND 6(f) EVALUATIONS  
SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

May 2011

SR 520, I-5 to Medina: Bridge Replacement and HOV Project

## **Section 4(f) Constructive Use Analysis Technical Memorandum**



**SR 520, I-5 to Medina:  
Bridge Replacement and HOV Project  
Final Environmental Impact Statement  
and Final Section 4(f) and 6(f) Evaluations**

**Section 4(f) Constructive  
Use Analysis  
Technical Memorandum**



Prepared for  
Washington State Department of Transportation  
Federal Highway Administration

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MAY 2011



# Executive Summary

The constructive use analysis evaluated historic properties that would not have a physical Section 4(f) use under the Preferred Alternative for the potential for constructive use of these properties. Under Section 4(f), a use may occur when there is a *constructive* use of land, which is defined in 23 Code of Federal Regulations 774.15 when: “the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired.”

Each historic property in the area of potential effects (APE) that does not experience a physical use was evaluated for constructive use. Due to the large number of historic properties within the project APE, the following methodology was established for determining if there is constructive use of historic properties as a result of the SR 520, I-5 to Medina project.

The historic properties within the APE have been clustered into 11 analysis groups. The groups were determined based on several factors, including geographic proximity, anticipated project impacts, and National Register of Historic Places criteria. Within each analysis group, the property with the greatest proximal project impacts was evaluated for constructive use under Section 4(f) regulations. If after analysis it was determined that the selected property does not have a constructive use from the project, then the remaining properties in that cluster, meeting the same eligibility criteria, also would not experience a constructive use.

The analysis of the 11 groupings of historic properties shows that none of these groups would have substantial impairment of the protected activities, features, and attributes of the historic properties. Therefore, there would be no constructive use of historic properties from the construction and operation of the Preferred Alternative. The Washington State Department of Transportation and Federal Highway Administration consulted with the State Historic Preservation Officer (SHPO) on the constructive use determinations and the SHPO agreed with the conclusion of no constructive use of historic properties.





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# Acronyms and Abbreviations

APE	Area of Potential Effects
CFR	Code of Federal Regulations
dBA	decibel (A-weighted scale)
Final EIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
HOV	high-occupancy vehicle
HPI	Historic Property Inventory
I-5	Interstate 5
ID	(property) identification number
MOHAI	Museum of History and Industry
NAC	Noise Abatement Criteria
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Officer
SR	State Route
WHR	Washington Heritage Register
WSDOT	Washington State Department of Transportation





# Introduction

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code 303[a]) declares that “[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” Section 4(f) protects significant publicly owned parks, recreation areas, and refuges, as well as significant historic sites. These types of resources are present within the study area.

Section 4(f) requires that particular attention be given to the proposed use of any land from a significant publicly owned park or recreation area, wildlife and waterfowl refuge, or historic property that is in or eligible for listing in the National Register of Historic Places (NRHP).

This technical memorandum discusses the potential for constructive use of only historic properties under the Preferred Alternative. It does not analyze parks and recreation areas. It is a supplement to the Final Section 4(f) Evaluation (Chapter 9) in the Final Environmental Impact Statement (Final EIS) for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project (the “SR 520, I-5 to Medina project”), which contains a complete analysis of all Section 4(f) properties. In March 2008, publication of the Section 4(f) Final Rule (23 Code of Federal Regulations [CFR] Part 774) amended existing Section 4(f) regulations. This technical memorandum is written in accordance with those regulations.

Section 4(f) specifies that the Federal Highway Administration (FHWA) may only approve a transportation project or program requiring the use of publicly owned land of a public park, recreation resource, or wildlife and waterfowl refuge of national, state, or local significance, or land from a historic property, if:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic property resulting from the use; or
3. The Administration determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact, as defined in §774.17, on the property.



Section 4(f) further requires consultation with the officials with jurisdiction over Section 4(f) properties when developing transportation projects and programs that use properties protected by Section 4(f).

Section 23 CFR 774.17 defines what constitutes a “use” of an eligible Section 4(f) property as a result of transportation project actions as follows:

1. When land is permanently incorporated into a transportation facility;
2. When there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose and that occupancy does not meet any of the exceptions to 4(f); or
3. When land is not incorporated into a transportation project, but the project results in a constructive use of Section 4(f) properties. A determination of constructive use is based on the criteria in 23 CFR 774.15.

## Constructive Use

Under Section 4(f), a use may occur when there is a *constructive* use of land, which is defined in 23 CFR 774.15 as follows:

A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired.

Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.  
[23 CFR 774.15 (a)]

A determination of constructive use is based on multiple criteria, as stipulated in 23 CFR 774.15. For historic properties, the Washington State Department of Transportation (WSDOT) and FHWA consulted with the State Historic Preservation Officer (SHPO) on the constructive use determinations and the SHPO agreed with the conclusion of no constructive use of historic properties.

For the SR 520, I-5 to Medina project, the Section 106 process did not culminate in property-by-property findings of effect. Instead, it was determined that the project as an undertaking would adversely affect historic properties in general. The SHPO has concurred with this project assessment and with the NRHP eligibility of the properties included in this technical memorandum. Because there are no findings of “no adverse effect” on



individual historic properties, this technical memorandum provides analysis of potential constructive use of all historic properties within the APE that are not directly impacted by construction or operation of the Preferred Alternative.

The construction and transport of the pontoons for the new Evergreen Point Bridge would not affect historic properties. Exhibit 1 in the Methodology section below shows the locations of possible pontoon construction areas. The pontoons would be built at existing industrial facilities and no historic properties would be affected by this construction. The pontoons would be towed either to an outfitting location in Puget Sound or to Lake Washington for incorporation into the floating bridge. In the Section 106 Programmatic Agreement, WSDOT has committed to avoid potential effects on the Seattle Yacht Club from the transport of pontoons by agreeing to a moratorium on towing of pontoons through Portage Bay, the Montlake Cut, and Union Bay during the Opening Day events as well as a prohibition on anchoring or mooring pontoons in such a way that they would interfere with Opening Day events, including the week before and the week after the ceremonies. As an active navigational channel listed in the NRHP for engineering significance, the integrity of the Montlake Cut would not be altered by towing pontoons through it. Because there are no effects on historic properties from this activity, there would be no use under Section 4(f).

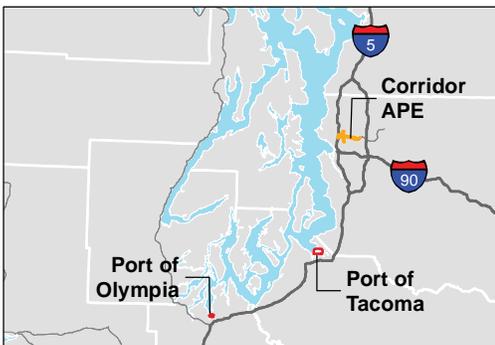
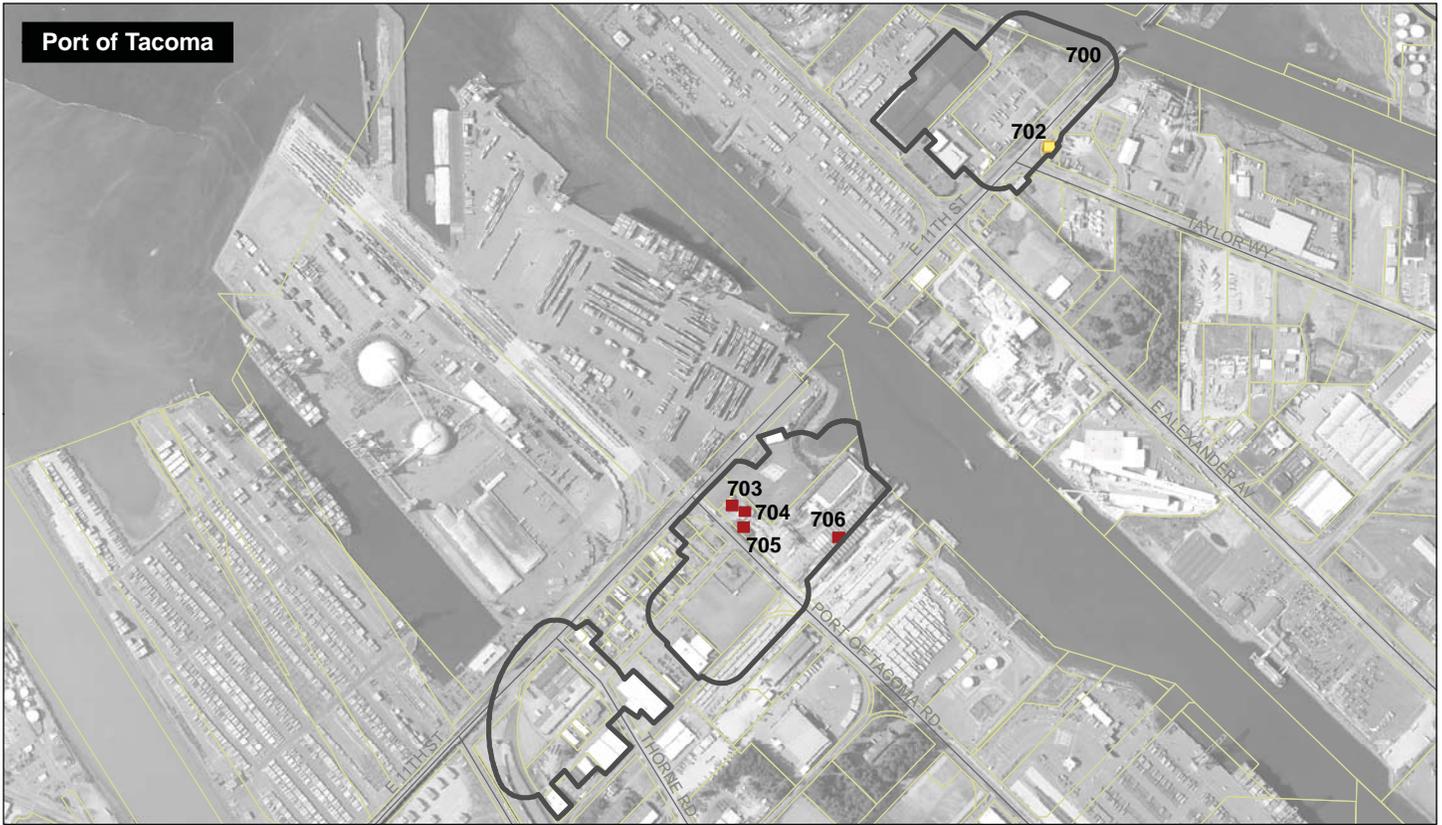
## Methodology

The property descriptions used here are from the Final Cultural Resources Assessment and Discipline Report (Attachment 7 to the Final EIS) and from the Historic Property Inventory (HPI) forms submitted to the SHPO in 2009 and 2010 and the previously identified property HPI or nomination forms (Attachments 3 and 4 to the Final Cultural Resources Assessment and Discipline Report in Attachment 7 to the Final EIS). The project effects information is from Chapters 7 and 8 of the Final Cultural Resources Assessment and Discipline Report (Attachment 7) and the Section 106 Technical Report (Elder et al. 2011), which was submitted to the SHPO in January 2011.

WSDOT, on behalf of FHWA, evaluated each property within the area of potential effects (APE) to identify all historic properties and assessed the effects of the Preferred Alternative on each property's seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association). The assessment resulted in one of four potential findings:

- **Does Not Alter Integrity:** Either no historic properties are present, or there is no effect of any kind, neither harmful nor beneficial, on historic properties.



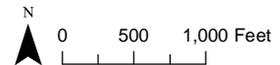


**Eligibility of Surveyed Resource**

- NRHP Eligible
- NRHP Listed
- WHR Eligible/Not NRHP Eligible
- Area of Potential Effects



Source: USDA-FSA (2006) Aerial Photo, NAIP (2009) Aerial Photo. Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 1. Constructive Use Analysis- Pontoon Construction and Transport**

SR520, I-5 to Medina: Bridge Replacement and HOV Project

- **Alters Integrity:** The undertaking affects historic properties, but does not diminish the characteristics that qualify the property for listing in the NRHP.
- **Diminishes Integrity:** There is an effect from the undertaking which alters the characteristics that qualify the property for listing in the NRHP in a way that diminishes the integrity of the historic property. This includes diminishing the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.
- **Temporarily Diminishes Integrity:** There is an effect from the undertaking, and that effect temporarily (during construction of the project) alters the characteristics that qualify the property for listing in the NRHP in a way that diminishes the integrity of the historic property.

The Section 106 process for historic properties did not culminate in property-by-property findings of effect from the project. As such, there are no properties in the APE that were determined specifically to have a finding of No Adverse Effect. Therefore, each historic property within the APE that does not experience a physical use must be evaluated for constructive use. Due to the large number of historic properties within the project APE, the following methodology was established for determining if there is substantial impairment of the properties; that is, if the activities, features, or attributes of the properties are substantially diminished and thus there is a constructive use of historic properties as a result of the SR 520, I-5 to Medina project.

The historic properties within the APE have been clustered into 11 analysis groups, as shown in Exhibit 2. The groups were determined based on several factors, including geographic proximity, anticipated project impacts, and NRHP criteria. Exhibits 2a through 2k show each grouping of historic properties in more detail, as well as the expected effects of the Preferred Alternative in each group.

Within each analysis group, the property with the greatest proximity impacts was evaluated for constructive use under Section 4(f) regulations. If after analysis it was determined that the selected property does not have a constructive use from the project, then the remaining properties in that cluster, meeting the same eligibility criteria, by extrapolation also would not experience a constructive use. For example, the Seward School is eligible for listing in the NRHP under Criteria A and C and is located immediately adjacent to the I-5/SR 520 interchange. Because it was determined that the Seward School would not experience a constructive use, the residential buildings along Boylston Avenue, which are eligible only under Criterion C and are located farther from the project, would also not experience a



constructive use. Some properties, such as the Seattle Yacht Club, are unique and must be evaluated on their own, rather than as part of a cluster.

This technical memorandum presents the following information for the representative property in each grouping and for the additional unique properties:

- Description of the historic property, noting the relevant NRHP eligibility criteria and any significant features or attributes
- Explanation of the specific proximity impacts of the Preferred Alternative on the historic property
- Evaluation of the project impacts to determine whether they result in a substantial impairment of the protected activities, features, or attributes of the property

Potential haul routes (shown in Exhibit 3) could introduce proximity impacts on historic properties, so the effects from potential haul routes was considered when analyzing constructive use. The primary haul routes are along I-5 and SR 520, which are intended to carry the majority of project truck traffic, while the others are potential haul routes on city streets. These haul routes were identified based on criteria such as shortest off-highway mileage, access to locations needed for construction where direct highway access is unavailable, and the ability to accommodate truck traffic. Final haul routes would be proposed by the contractor and determined by local jurisdictions for those actions and activities that require a street use or other jurisdictional permit.

Impacts on properties along potential haul routes are analyzed based on possible truck traffic estimated for each route. Volumes estimated for each potential haul route are intended to characterize truck activity anticipated during a typical average day of construction for the duration of use as a haul route. For potential routes where haul truck volumes may vary substantially over the construction period, peak daily volumes were estimated.

The estimated truck peaks and averages represent a worst-case condition for each route. It is assumed that all truck trips servicing each work site would need to use more than one haul route. Work sites could be accessed by more than one potential route, which could result in lower actual truck volumes during construction at some locations. To best represent how truck traffic would be experienced by a single observer, the number of trucks per day reported for this analysis is equal to twice the number of loads delivered. For example, the delivery of one load of concrete is estimated as two trucks per day because the truck is counted both when arriving and when leaving the site.



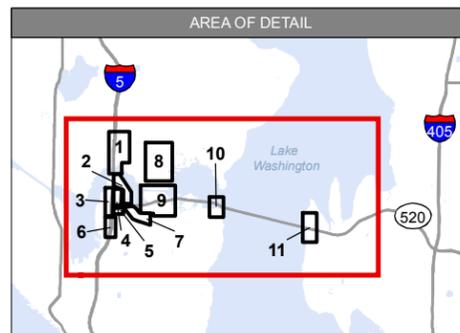
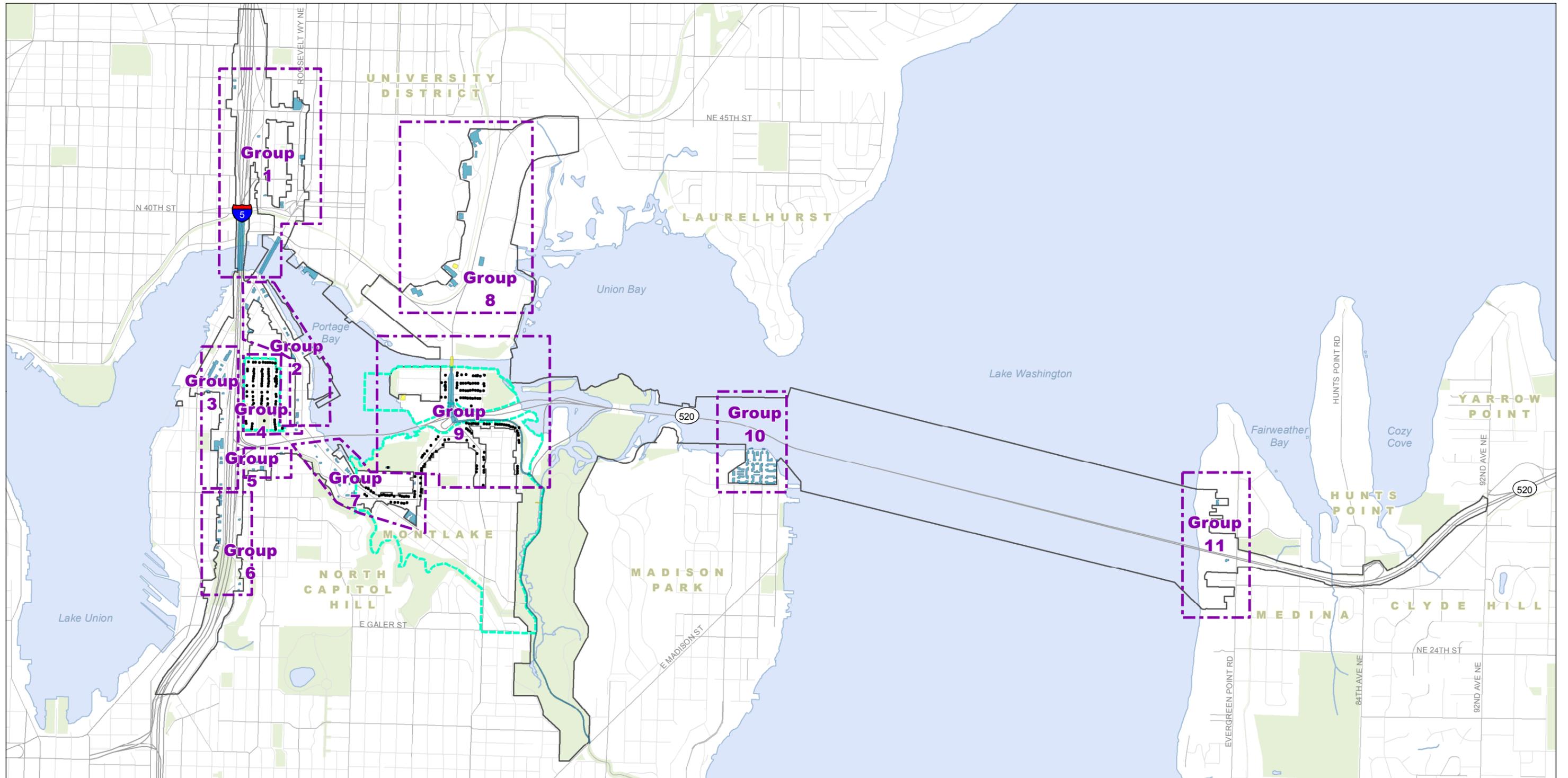
In general, the estimated number of truck trips along arterials would be relatively low compared to overall arterial volumes.

The Final Transportation Discipline Report (see Attachment 7 to the Final EIS) includes more detailed discussion and explanation of haul routes, effects on traffic volumes, and scheduling.

In accordance with Section 774.15(d)(2), mitigation and minimization efforts were taken into account in this analysis. Through the development of minimization and mitigation measures, WSDOT has committed to developing a construction management planning process in part to minimize impacts on historic properties during construction. As part of the Section 106 Programmatic Agreement, WSDOT has collaborated with the Section 106 consulting parties, affected community groups, and the City of Seattle to develop a Community Construction Management Plan (CCMP). The CCMP, which was incorporated into the Programmatic Agreement by reference, contains specific measures designed to protect properties, including historic properties, and is designed as an adaptable plan to cover unanticipated events that may arise during construction (see Attachment 9 to the Final EIS). The CCMP, which is currently in draft form, is being developed through coordination between WSDOT and the stakeholders and will continue to be developed through final design. (Attachment 9 to the Final EIS contains a copy of the CCMP.)



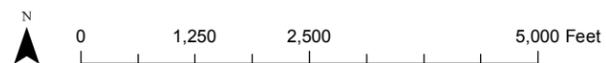




**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- ▭ Historic District Boundary
- ▭ Area of Potential Effects
- ▭ Group Boundary

Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



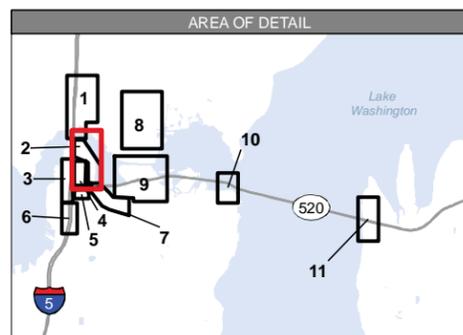
**Exhibit 2. Constructive Use Analysis - Historic Properties, Overview**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project









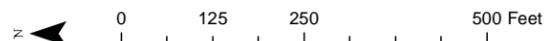
**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- - - Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- - - Area of Potential Effects
- - - General-Purpose Lane
- - - HOV, Direct Access, and/or Transit-Only Lane
- - - Lid
- - - Proposed Bicycle/Pedestrian Path
- - - Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



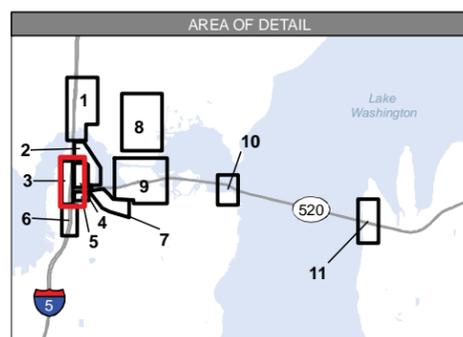
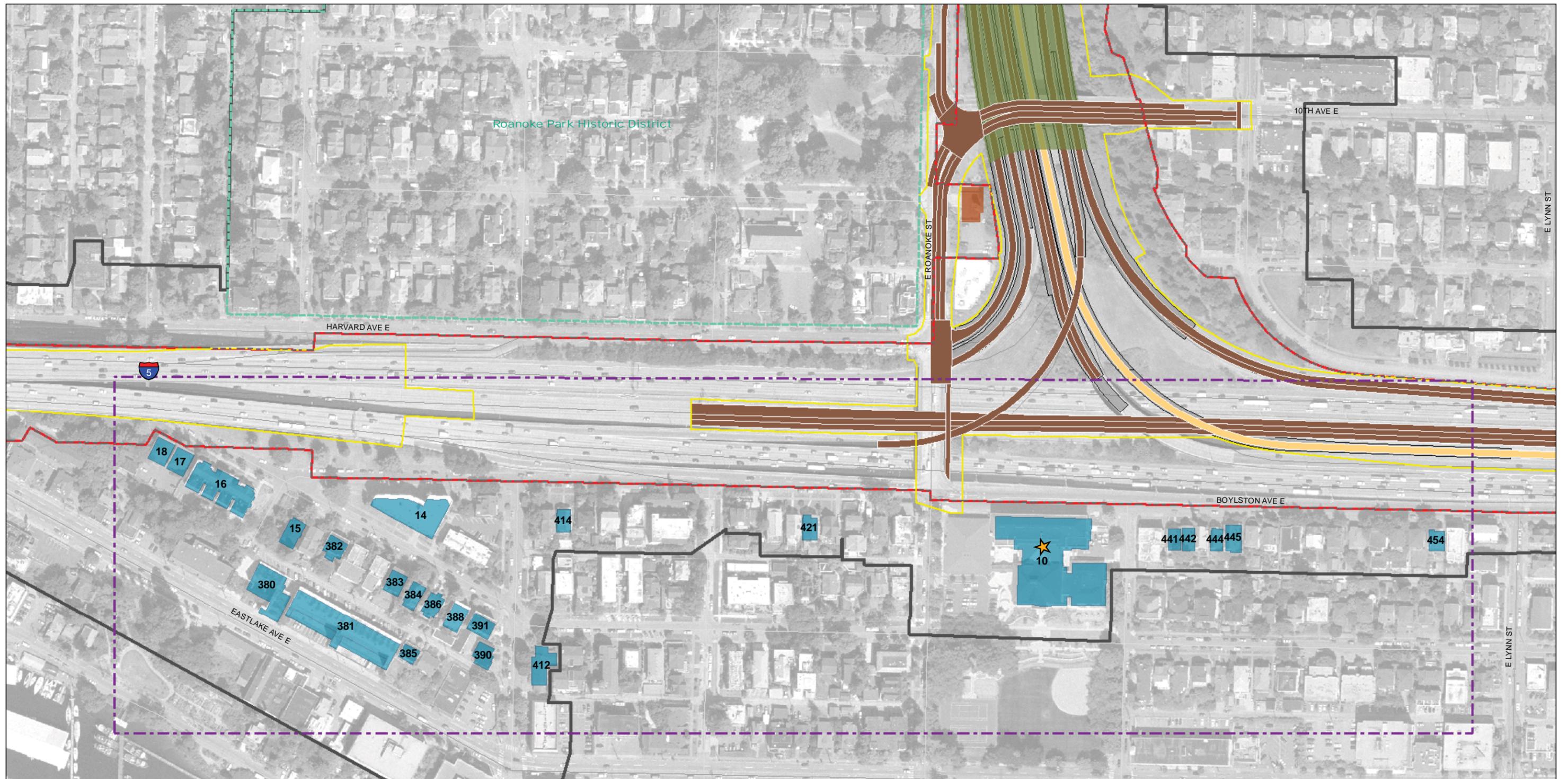
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2b. Constructive Use Analysis - Historic Properties, Group 2**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





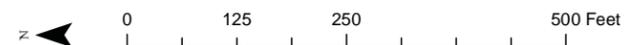
**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- - - Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- - - Area of Potential Effects
- - - General-Purpose Lane
- - - HOV, Direct Access, and/or Transit-Only Lane
- - - Lid
- - - Proposed Bicycle/Pedestrian Path
- - - Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



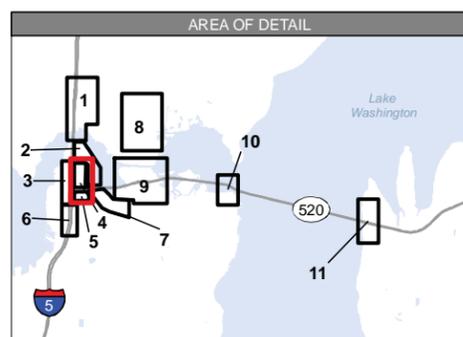
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**Exhibit 2c. Constructive Use Analysis- Historic Properties, Group 3**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- Area of Potential Effects
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Lid
- Proposed Bicycle/Pedestrian Path
- Historic Property with a Section 4(f) Use

- ★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



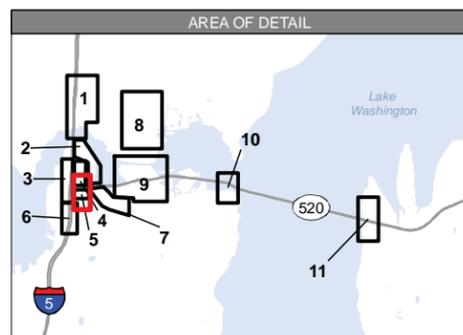
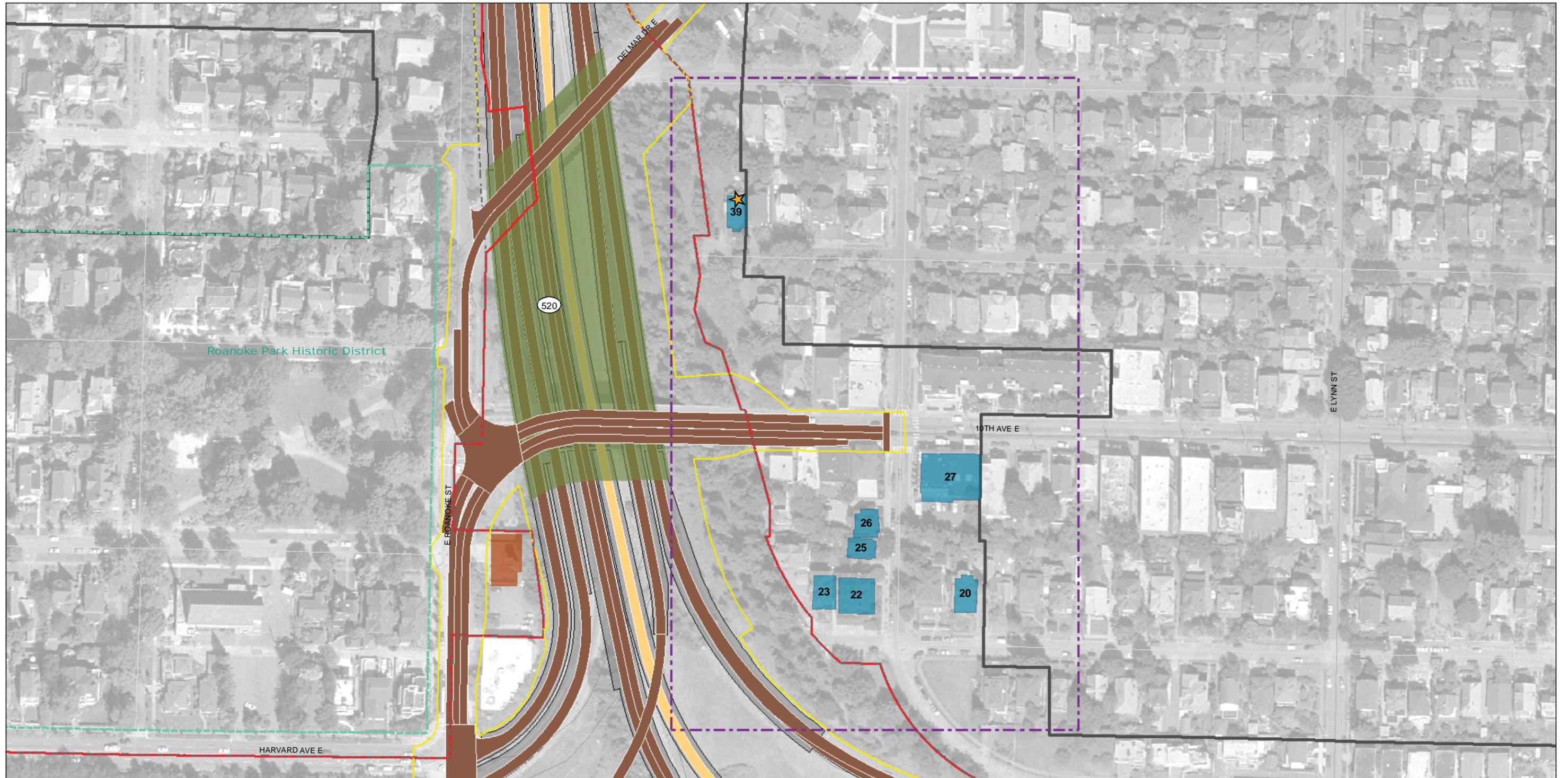
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2d. Constructive Use Analysis-Historic Properties, Group 4**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- Proposed Right-of-way
- Existing Right-of-way
- Limits of Construction
- Historic District Boundary

- Group Boundary
- Area of Potential Effects
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Lid
- Proposed Bicycle/Pedestrian Path
- Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report

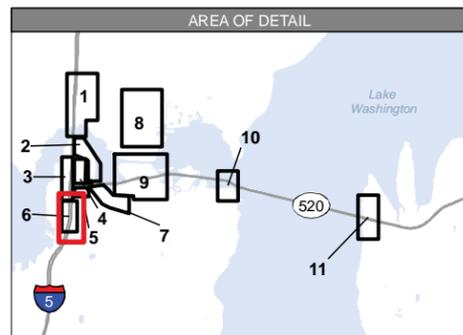
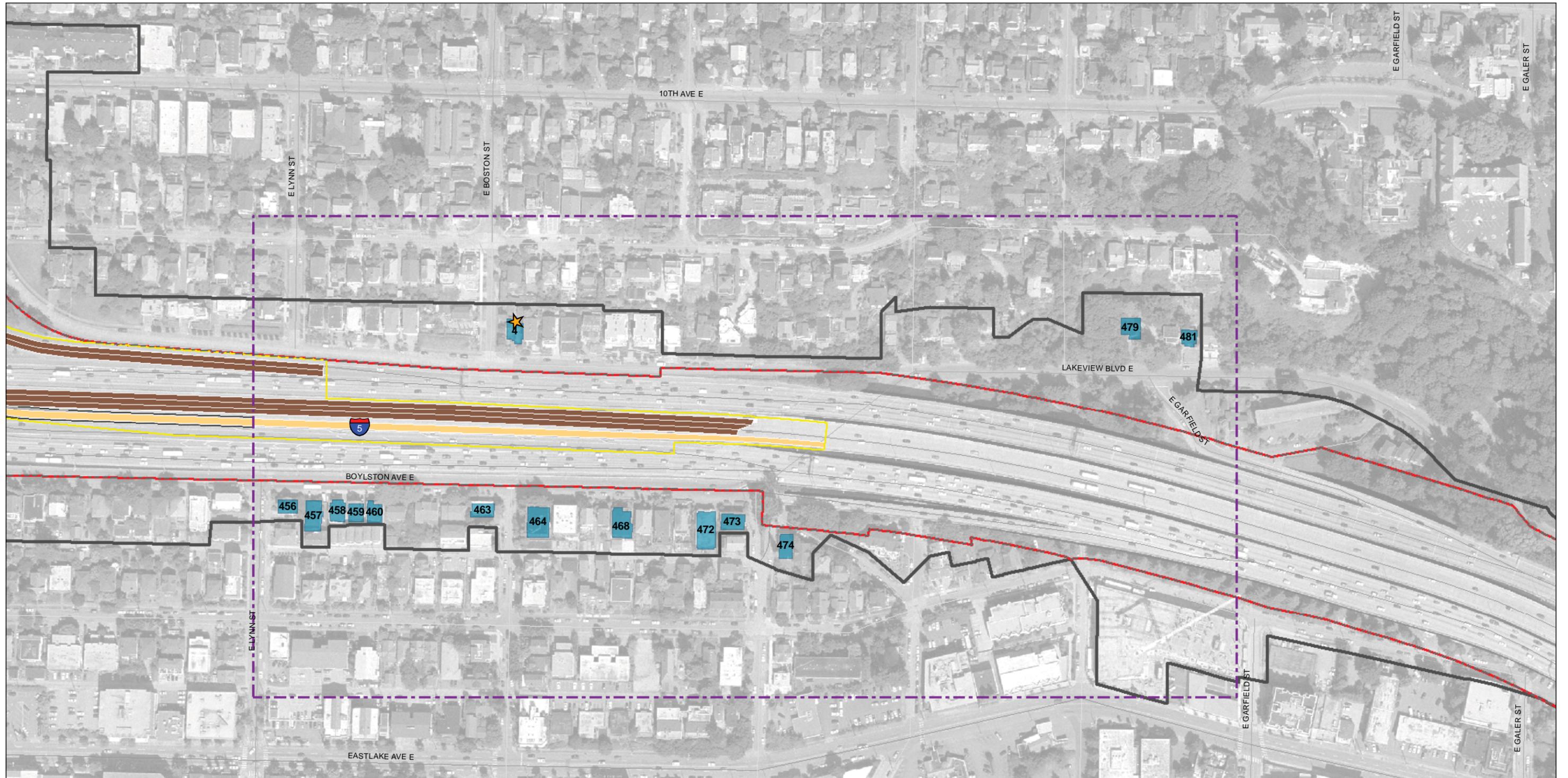


Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

**Exhibit 2e. Constructive Use Analysis-Historic Properties, Group 5**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- Proposed Right-of-way
- Existing Right-of-way
- Limits of Construction
- Historic District Boundary

- Group Boundary
- Area of Potential Effects
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Lid
- Proposed Bicycle/Pedestrian Path
- Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



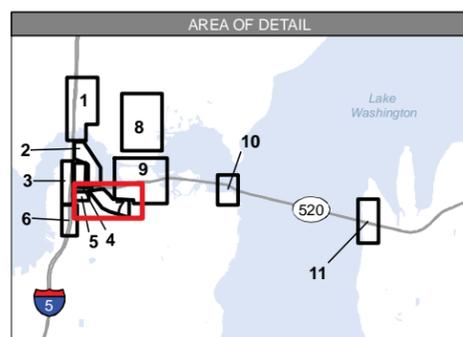
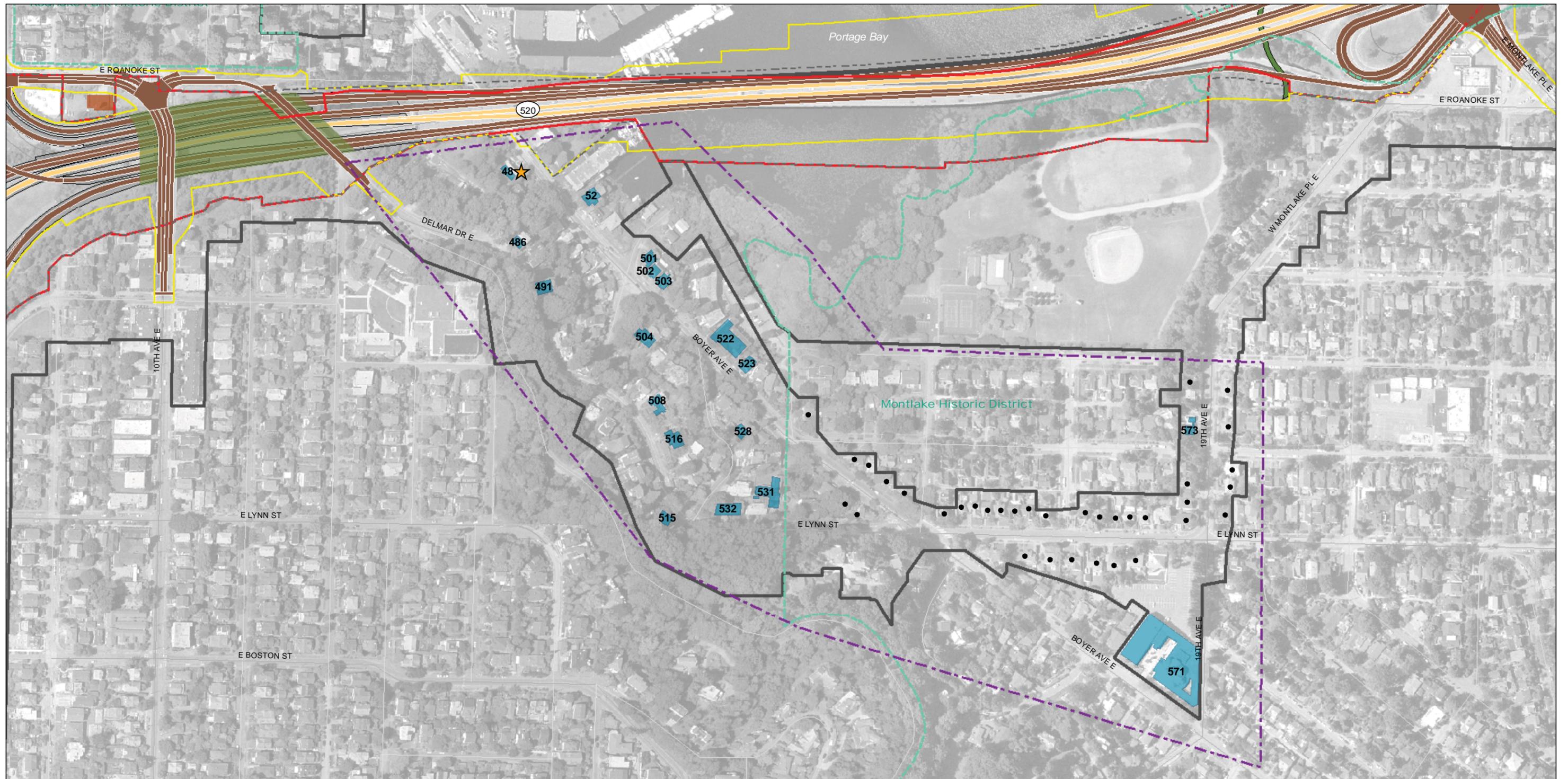
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2f. Constructive Use Analysis-Historic Properties, Group 6**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- ▭ Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- ▭ Area of Potential Effects
- ▭ General-Purpose Lane
- ▭ HOV, Direct Access, and/or Transit-Only Lane
- ▭ Lid
- ▭ Proposed Bicycle/Pedestrian Path
- ▭ Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 - "Summary of Pre-1972 Properties Surveyed in the APE"



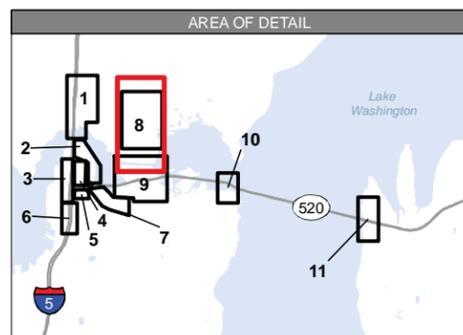
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2g. Constructive Use Analysis-Historic Properties, Group 7**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project





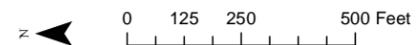
**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- Existing Right-of-way
- - - Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- Area of Potential Effects
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Lid
- Proposed Bicycle/Pedestrian Path
- Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



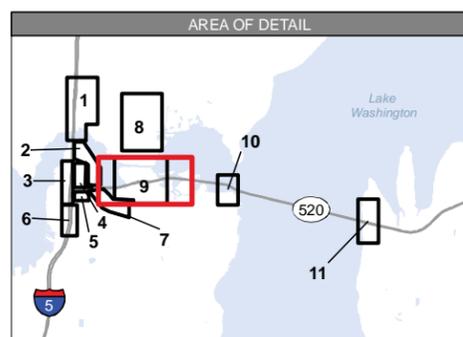
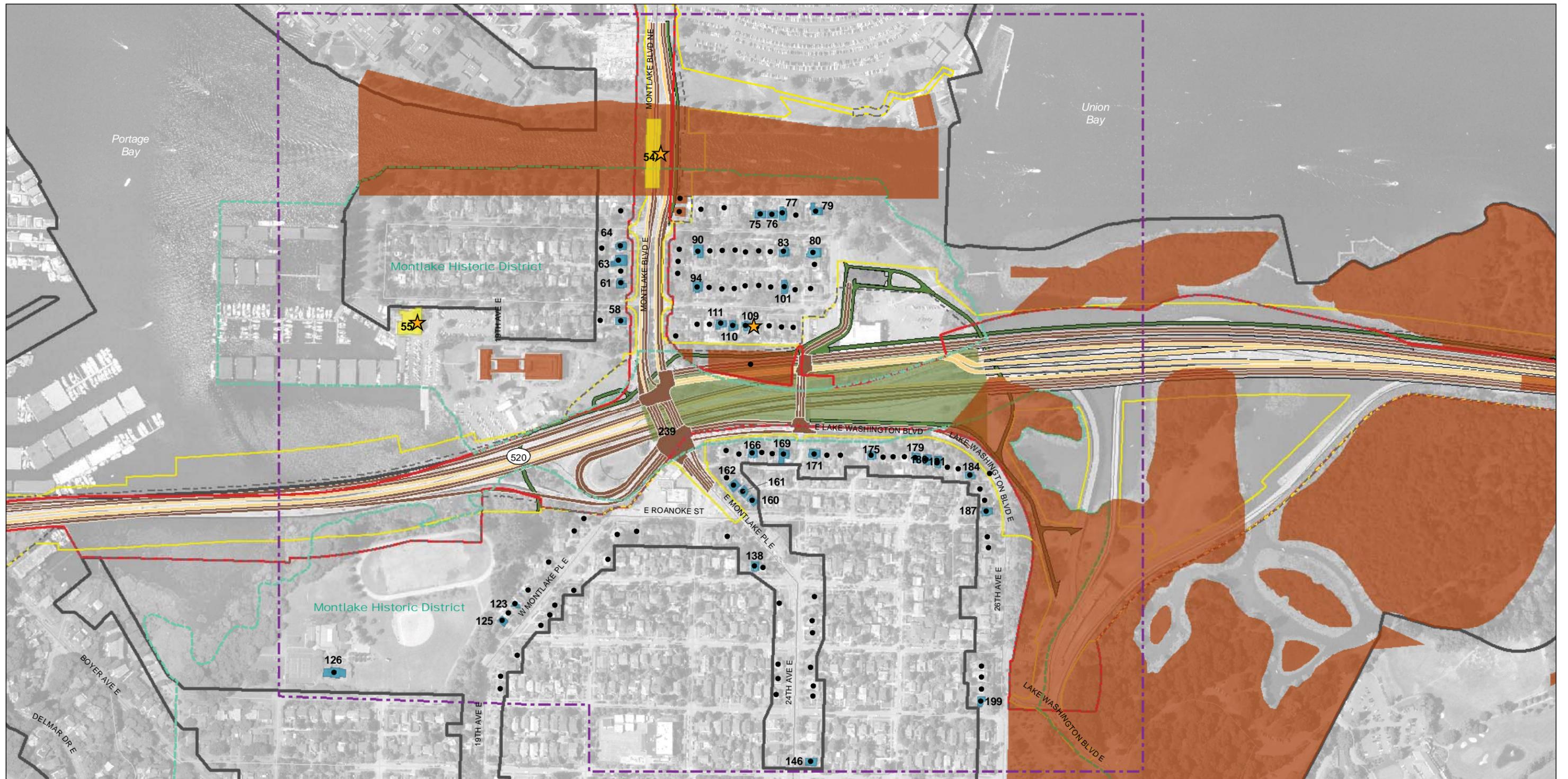
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2h. Constructive Use Analysis-Historic Properties, Group 8**

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**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- ▭ Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- ▭ Area of Potential Effects
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Lid
- Proposed Bicycle/Pedestrian Path
- Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



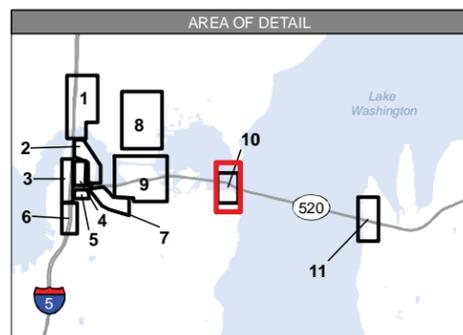
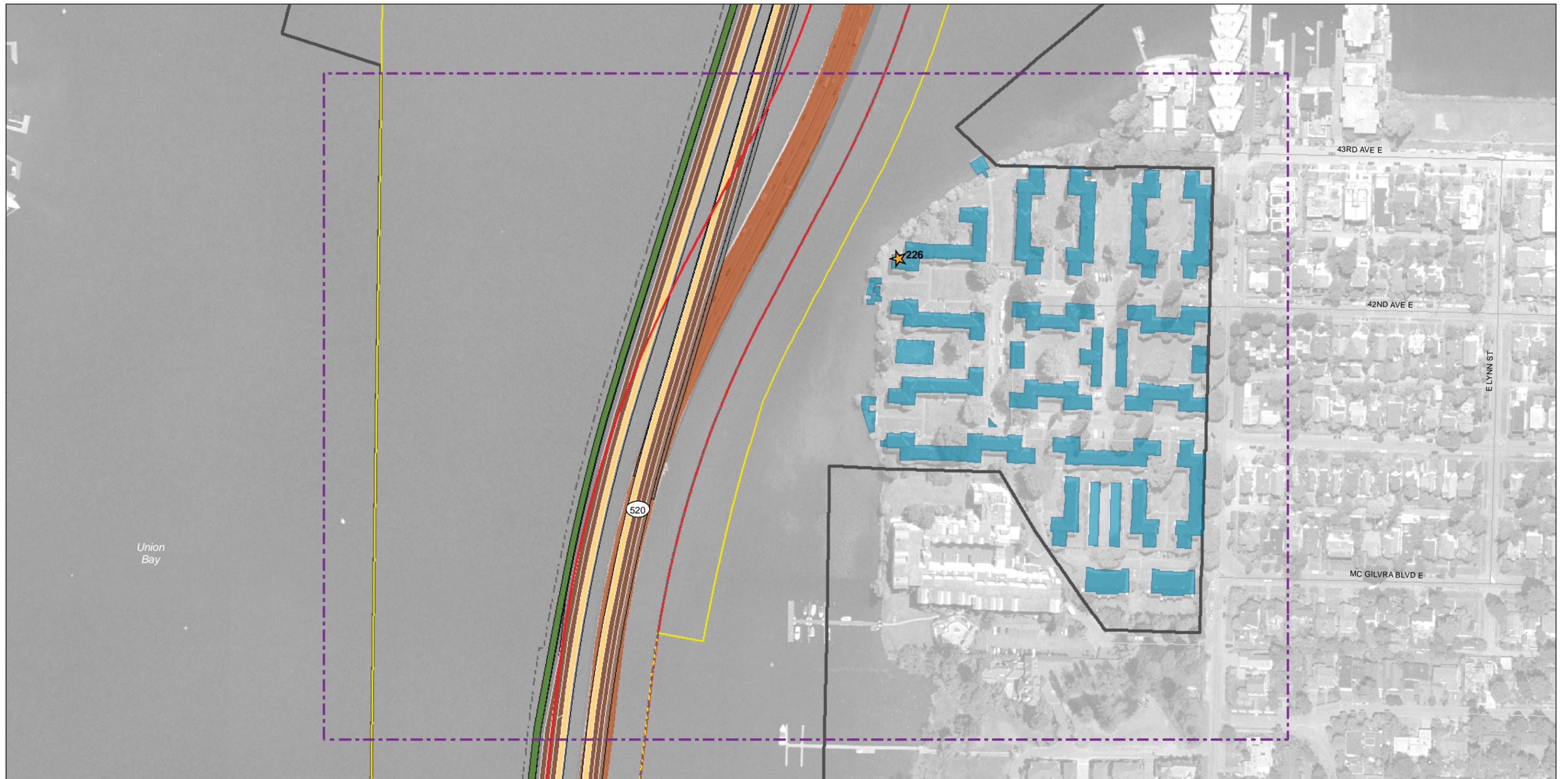
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2i. Constructive Use Analysis-Historic Properties, Group 9**

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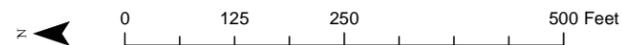
**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- ▭ Existing Right-of-way
- ▭ Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- ▭ Area of Potential Effects
- ▭ General-Purpose Lane
- ▭ HOV, Direct Access, and/or Transit-Only Lane
- ▭ Lid
- ▭ Proposed Bicycle/Pedestrian Path
- ▭ Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



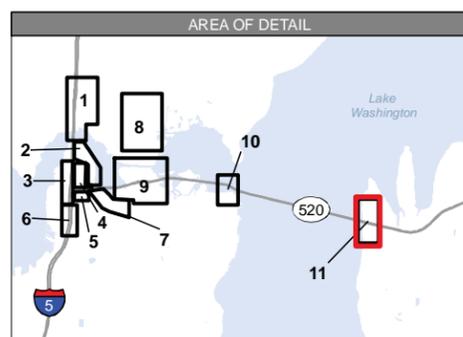
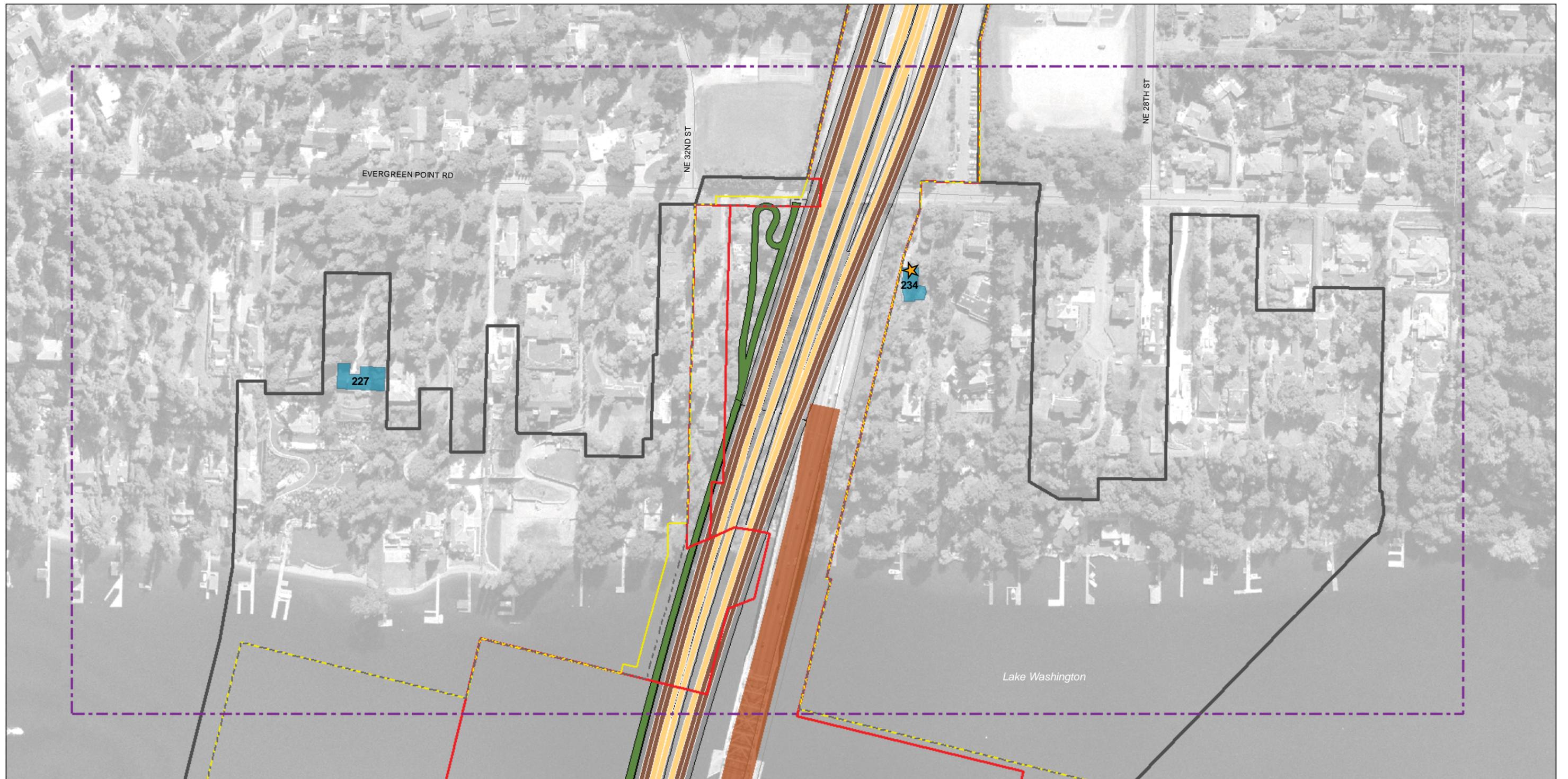
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2j. Constructive Use Analysis- Historic Properties, Group 10**

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**NRHP Eligibility of Historic Properties**

- Contributing
- Listed
- Eligible
- - - Proposed Right-of-way
- - - Existing Right-of-way
- - - Limits of Construction
- - - Historic District Boundary

- - - Group Boundary
- - - Area of Potential Effects
- - - General-Purpose Lane
- - - HOV, Direct Access, and/or Transit-Only Lane
- - - Lid
- - - Proposed Bicycle/Pedestrian Path
- - - Historic Property with a Section 4(f) Use

★ Historic Property Evaluated for Constructive Use from the Preferred Alternative

NOTE: Property ID Numbers displayed on the map correspond to those in the tables in Attachment 1 of the Cultural Resources Assessment Discipline Report



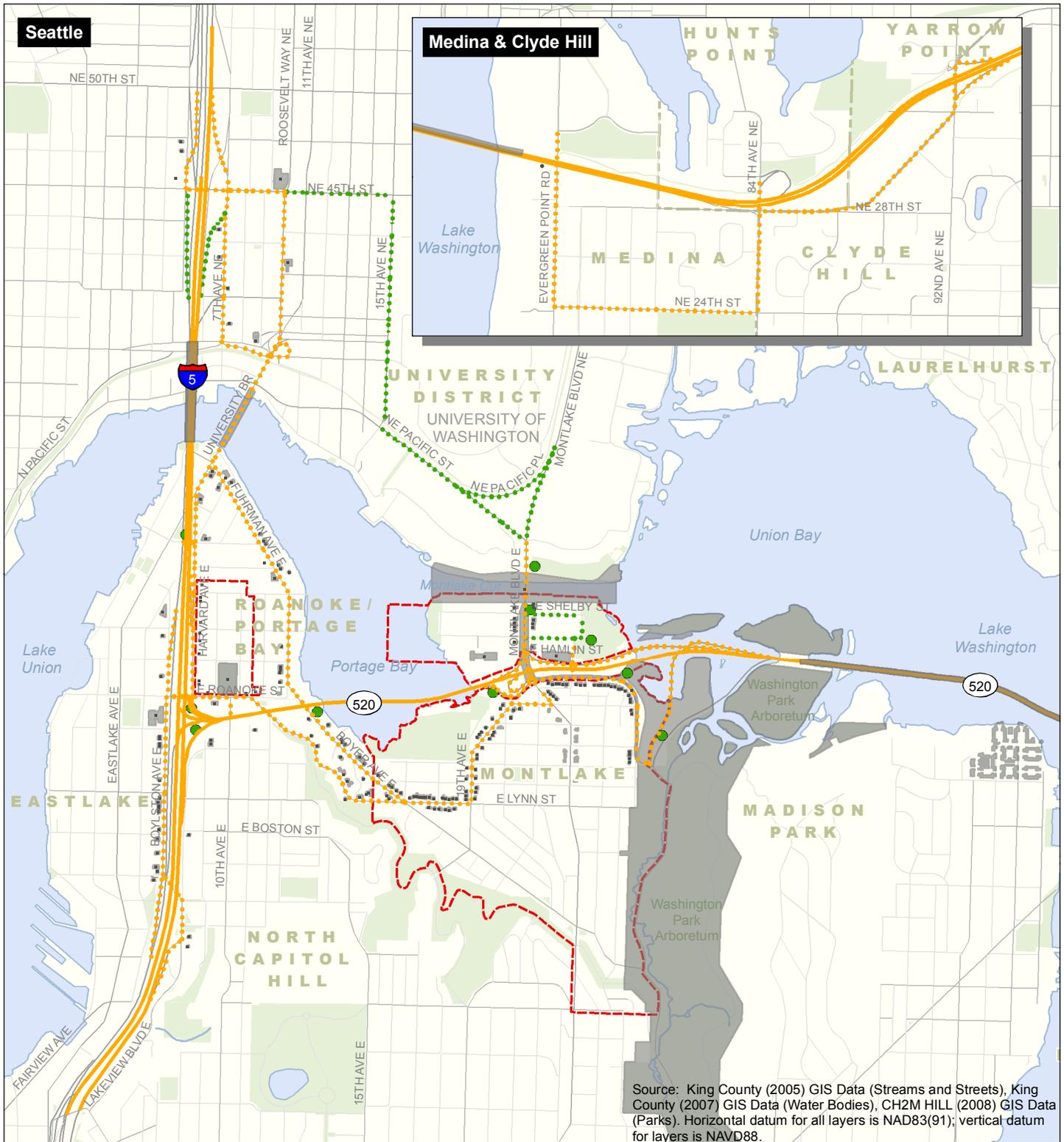
Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), King County (2008) GIS Data (Parcel), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



**Exhibit 2k. Constructive Use Analysis-Historic Properties, Group 11**

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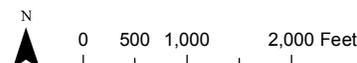




Source: King County (2005) GIS Data (Streams and Streets), King County (2007) GIS Data (Water Bodies), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.



- Potential Primary Haul Route (Preferred Alternative and Options A, K, and L)
- ⋯ Potential Secondary Haul Route (Preferred Alternative and Options A, K, and L)
- ⋯ Potential Secondary Haul route (Options K and L)
- Potential Staging Area
- Historic Building Located Adjacent to Haul Route
- Historic properties
- Historic District



### Exhibit 3. Potential Haul Routes and Construction Staging Areas

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