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ARCHAEOLOGICAL RESOURCES SUPPLEMENTAL TECHNICAL REPORT

Oregon Department of Transportation
July 1, 2022



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1	Contents	
2	Executive Summary	1
3	1.0 Introduction	2
4	2.0 Build Alternative Design Changes	2
5	2.1 Design Process	2
6	2.2 Project Area	5
7	2.3 I-5 Mainline Improvements Changes.....	8
8	2.4 Highway Cover Changes.....	8
9	2.5 Related Local System Multimodal Improvements Changes	10
10	3.0 Regulatory Framework.....	13
11	3.1 Programmatic Agreement (2019).....	13
12	4.0 Methodology and Data Sources.....	13
13	4.1 Area of Potential Impact.....	13
14	4.2 Resource Identification and Evaluation.....	16
15	4.2.1 Data Sources.....	16
16	4.2.2 Consultation	16
17	4.2.3 Field Reconnaissance.....	16
18	5.0 Affected Environment	17
19	5.1 Physical setting	17
20	5.1.1 Existing Surface Conditions	17
21	5.1.2 Monitoring of Recent Geotechnical Studies	21
22	5.2 Previous Cultural Resources Investigations.....	22
23	5.3 Historical Maps Review.....	22
24	5.3.1 General Land Office Survey Plat.....	22
25	5.3.2 United States Geological Survey Maps.....	22
26	5.3.3 Electric Railways Map.....	22
27	5.3.4 Sanborn Fire Insurance Maps.....	23
28	5.3.5 Other Maps.....	23
29	5.4 Aerial Photograph Review	28
30	5.5 Archaeological Sensitivity Analysis	36



1	5.6	Archaeological Treatment Plan.....	36
2	6.0	Environmental Consequences.....	37
3	6.1	No-Build Alternative	37
4	6.2	Revised Build Alternative.....	37
5	6.2.1	Direct Impacts.....	37
6	6.2.2	Indirect Impacts.....	38
7	6.3	Cumulative effects	38
8	6.4	Conclusions	38
9	7.0	Avoidance, Minimization, and Mitigation Measures.....	38
10	8.0	Preparers.....	39
11	9.0	References.....	39
12		Appendix A [Sanborn Fire Insurance Maps].....	1

13 **Figures**

14	Figure 1	Hybrid 3 Highway Cover Design Concept.....	4
15	Figure 2	Previous and Current Project Area.....	7
16	Figure 3	Building Parameters on the Cover.....	9
17	Figure 4	Local System Multimodal Design Changes.....	12
18	Figure 5.	Project Area and API for archaeological resources.....	15
19	Figure 6.	Existing Surface Conditions at the Newly Added Areas of the Revised Build Alternative (April	
20		27, 2022).....	19
21	Figure 7.	Example of urban archaeology feature (exposed rails and cobblestone) south of the API	
22		along N. Thunderbird Way, facing southeast (April 27, 2022).....	20
23	Figure 8.	Example of electric streetcar, rails, and cobblestone roads in Portland (1909) (City of	
24		Portland 2022a).....	20
25	Figure 9.	1852 General Land Office	24
26	Figure 10.	1897 USGS topographic quadrangle	25
27	Figure 11.	1940 USGS topographic quadrangle	26
28	Figure 12.	Electric Railways Map of Portland (adapted from Booth 2017)	27
29	Figure 13.	Circa 1938 aerial photograph showing former development at Area B (red polygon; now a	
30		parking lot) (City of Portland 2022c).	29
31	Figure 14.	1942 aerial photograph (red polygon showing approximate location of Area B, now a	
32		parking lot) (City of Portland 2022d). Photo looking northwest.....	30
33	Figure 15.	1948 aerial photograph showing floodwaters at the southern end of the API (red polygon	
34		approximate location of Area C), south of Burnside Bridge. Photo looking north. (City of	
35		Portland 2022e).....	31
36	Figure 16.	1955 aerial photograph with the API	32
37	Figure 17.	1958 aerial photograph showing the future site of Veterans Memorial Coliseum (red	
38		polygon showing approximate location of Area B, now a parking lot) (City of Portland	
39		2022f).....	33

1 Figure 18. 1962 aerial photograph of freeway construction looking north from Banfield Freeway
2 connections, just north of Revised Built Alternative Area C (City of Portland 2022g). Red
3 polygon at center right delineates approximate location of Area A along NE Holladay
4 Street, and center left the location of Area B with the Thunderbird Motel having replaced
5 former residential buildings. 34
6 Figure 19. 1973 aerial photograph of Broadway Bridge with I-5 in the background facing northeast
7 (City of Portland 2022h). The former Thunderbird Motel is visible in the foreground within
8 Revised Build Alternative Area B (red polygon). Inset photograph is a postcard of the
9 former Thunderbird Motel (undated; image provided by Robert Hadlow, ODOT historian)..... 35
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1	Acronyms	
2		
3	API	Area of Potential Impact
4	COAC	Community Oversight Advisory Board
5	EA	Environmental Assessment
6	ESC	Executive Steering Committee
7	FHWA	Federal Highway Administration
8	FONSI	Finding of No Significant Impact
9	GIS	geographic information system
10	HAAB	Historic Albina Advisory Board
11	HPA	high-probability area
12	ODOT	Oregon Department of Transportation
13	Project	Interstate 5 (I-5) Rose Quarter Improvement Project
14	REA	Revised EA
15	SHPO	State Historic Preservation Office
16	SOI	Secretary of the Interior
17	USGS	U.S. Geological Survey

1 Executive Summary

2 The Interstate 5 Rose Quarter Improvement Project (Project) Environmental Assessment (EA)
3 was released in February 2019. The Federal Highway Administration (FHWA) published a
4 Finding of No Significant Impact (FONSI) and Revised EA (REA) for the Build Alternative on
5 November 6, 2020. Since the issuance of the FONSI, the Oregon Department of Transportation
6 (ODOT) has made changes to the design of the Build Alternative (“Revised Build Alternative”)
7 and re-evaluated the changes in the context of the FONSI/REA. The Revised Build Alternative
8 has been reviewed for effects on potential archaeological resources within the Area of Potential
9 Impact (API). Four areas added as part of the Revised Build Alternative (Areas A, B, C, and D)
10 expand the archaeological API by 8.7 acres.

11 The Project team completed an updated records search and reconnaissance-level site visit of
12 the expanded areas of the Revised Build Alternative in April 2022, confirming the presence of
13 extensive development and impervious surfaces. Due to the level of development throughout
14 the API, since 2019, geotechnical and environmental investigations for the Project have
15 included archaeological monitoring of approximately 100 borings to assess the depth of
16 previous disturbances, and the presence or absence of archaeological resources. No
17 archaeological resources have been identified within the API to date. This information is being
18 used to refine an archaeological sensitivity model to determine areas where archaeological
19 monitoring would occur for the Project. ODOT is continuing consultation with tribes and
20 consulting parties with a demonstrated interest in archaeological and historic resources.

21 The Revised Build Alternative is not anticipated to have a significant impact on archaeological
22 resources. Short-term construction activities have the greatest potential to encounter and
23 directly impact archaeological resources because of ground-disturbing activities associated with
24 construction. However, incorporating avoidance, minimization, and mitigation measures could
25 reduce the physical extent of potential below-ground disturbance. In 2019, ODOT entered into
26 a Programmatic Agreement (PA) executed by the FHWA, Oregon State Historic Preservation
27 Office, and ODOT for *Identifying and Evaluating Archaeological Resources During the*
28 *Development and Construction of the Interstate 5 Rose Quarter Improvement Project, Portland,*
29 *Multnomah County, Oregon*. The PA has stipulations for preconstruction and construction
30 monitoring, and includes a plan for treating, evaluating, and mitigating archaeological resources
31 if any are discovered as a result of the Project. No long-term impacts are anticipated that would
32 result in appreciable changes to potential archaeological resources. No impacts associated with
33 cumulative effects have been identified.

1.0 INTRODUCTION

The I-5 Rose Quarter Improvement Project (Project) Environmental Assessment (EA) was released in February 2019. The Federal Highway Administration (FHWA) published a Finding of No Significant Impact (FONSI) and Revised EA (REA) for the Build Alternative on November 6, 2020. Since the issuance of the FONSI, the Oregon Department of Transportation (ODOT) has made changes to the design of the proposed Build Alternative to create a Revised Build Alternative and re-evaluated the changes in the context of the FONSI/REA. At the conclusion of the re-evaluation, FHWA and ODOT agreed that the design changes require additional analyses beyond what was presented in the REA, and FHWA rescinded the FONSI on January 18, 2022. This technical memo supplements the 2019 Archaeological Resources Technical Report with an evaluation of the impacts of the Revised Build Alternative compared to the No-Build Alternative and Build Alternative.

2.0 BUILD ALTERNATIVE DESIGN CHANGES

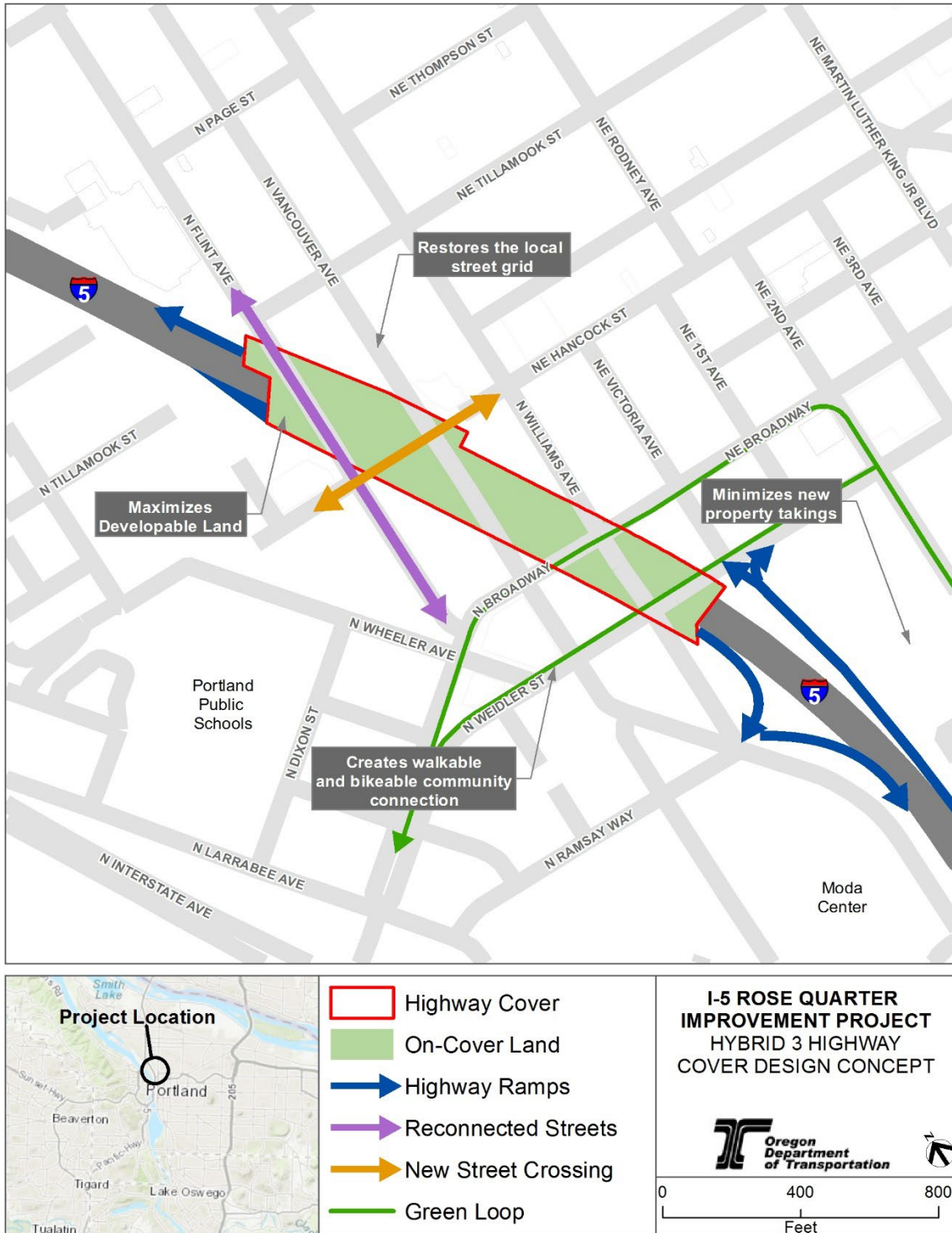
Changes to the Build Alternative include modification to the highway cover design and changes associated with advancements in other elements of the project design, some of which require expansion of the Project Area. This section describes the highway cover design changes and design changes that resulted from advancements in project engineering. The evaluation of these changes is presented in Section 6.2 of this supplemental technical report.

2.1 DESIGN PROCESS

Through 2021, ODOT facilitated an Independent Highway Cover Assessment, as directed by the Oregon Transportation Commission, that engaged the Project’s advisory committees and community members in a series of collaborative workshops to explore the design opportunities for the highway cover. The purpose of the Independent Highway Cover Assessment was to understand stakeholder goals and objectives within the Project Area, generate potential highway cover scenarios, and assess the impacts and benefits of those scenarios. The Independent Highway Cover Assessment team worked directly with local community members from the historic Albina neighborhood to understand how the highway cover design concepts might best serve the historic Albina community. The Project’s Historic Albina Advisory Board (HAAB), Executive Steering Committee (ESC) and the Community Oversight Advisory Board (COAC) also provided input as part of the Independent Highway Cover Assessment process. These sessions explored potential opportunities for economic development in the Albina community and the highway cover design concepts.

1 In July 2021, Oregon Governor Brown convened a series of meetings with Project stakeholders
2 and community organizations to discuss the design concepts developed in the Independent
3 Highway Cover Assessment. In August 2021, the HAAB—as supported by the ESC and the COAC,
4 and through the Governor-led process—recommended “Hybrid 3” as the preferred highway
5 cover design concept (Figure 1). The Hybrid 3 highway cover design concept represents a
6 proposed community solution to maximize developable space on a single highway cover. The
7 Hybrid 3 highway cover design concept maintains the commitment for the Project to create
8 opportunities for the local community to grow wealth through business ownership and long-
9 term career prospects through the Project’s Disadvantaged Business Enterprise and workforce
10 program. Following the community and stakeholder recommendations, in September 2021, the
11 Oregon Transportation Commission directed ODOT to advance further evaluation of the Hybrid
12 3 highway cover design concept, with conditions related to the Project’s funding process and
13 other technical analyses.

1 Figure 1 Hybrid 3 Highway Cover Design Concept



2

3 Source: Independent Cover Assessment (Independent Cover Assessment Team, 2021)

1 In January 2022, Governor Brown entered into a Letter of Agreement with the City of Portland,
2 Metro, and Multnomah County that demonstrated their shared understanding and collective
3 support for the Hybrid 3 concept as part of the Project. The Letter of Agreement specifically
4 highlights the desire to connect the Lower Albina neighborhood, create buildable space, and
5 enhance wealth-generating opportunities for the community, while simultaneously addressing
6 the area’s transportation needs. Additionally, the Letter of Agreement supports the
7 development of a process to define the future development vision for what could ultimately be
8 built on top of the highway cover upon Project completion – this process is referred to as a
9 Community Framework Agreement. The Letter of Agreement states that the City of Portland
10 will lead a Community Framework Agreement process and that it should be between the City of
11 Portland, ODOT, other state agencies and local jurisdictions as necessary, with the participation
12 of organizations that represent the Albina community and Black residents. Any future real
13 estate or open space development on top of the cover would require executing long-term air
14 rights and lease agreements, and that any such actions or decisions are subject at all times to
15 applicable local, state, and federal laws including but not limited to land use and NEPA
16 processes.

17 In June 2022, ODOT and the City of Portland executed an Intergovernmental Agreement (IGA),
18 building upon the January 2022 Letter of Agreement. The IGA further states that the City will
19 lead the future highway cover land use, programming and development processes and
20 development of a Community Framework Agreement, in consultation with the ODOT to ensure
21 the highway, local streets and resulting land parcels within the Project are coordinated. As such,
22 ODOT would construct the highway cover as part of the Project and the City of Portland would
23 lead the process to define what is ultimately built on the new land created by the Project’s
24 highway cover. In the IGA, both ODOT and the City agreed that ODOT will retain ownership of
25 the highway cover structure and the new developable area created on the highway cover
26 structure upon Project completion.

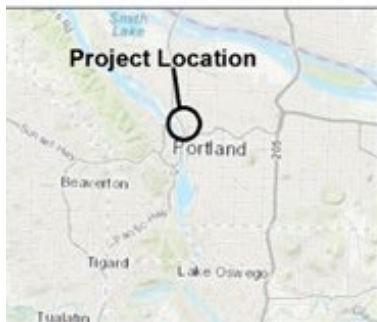
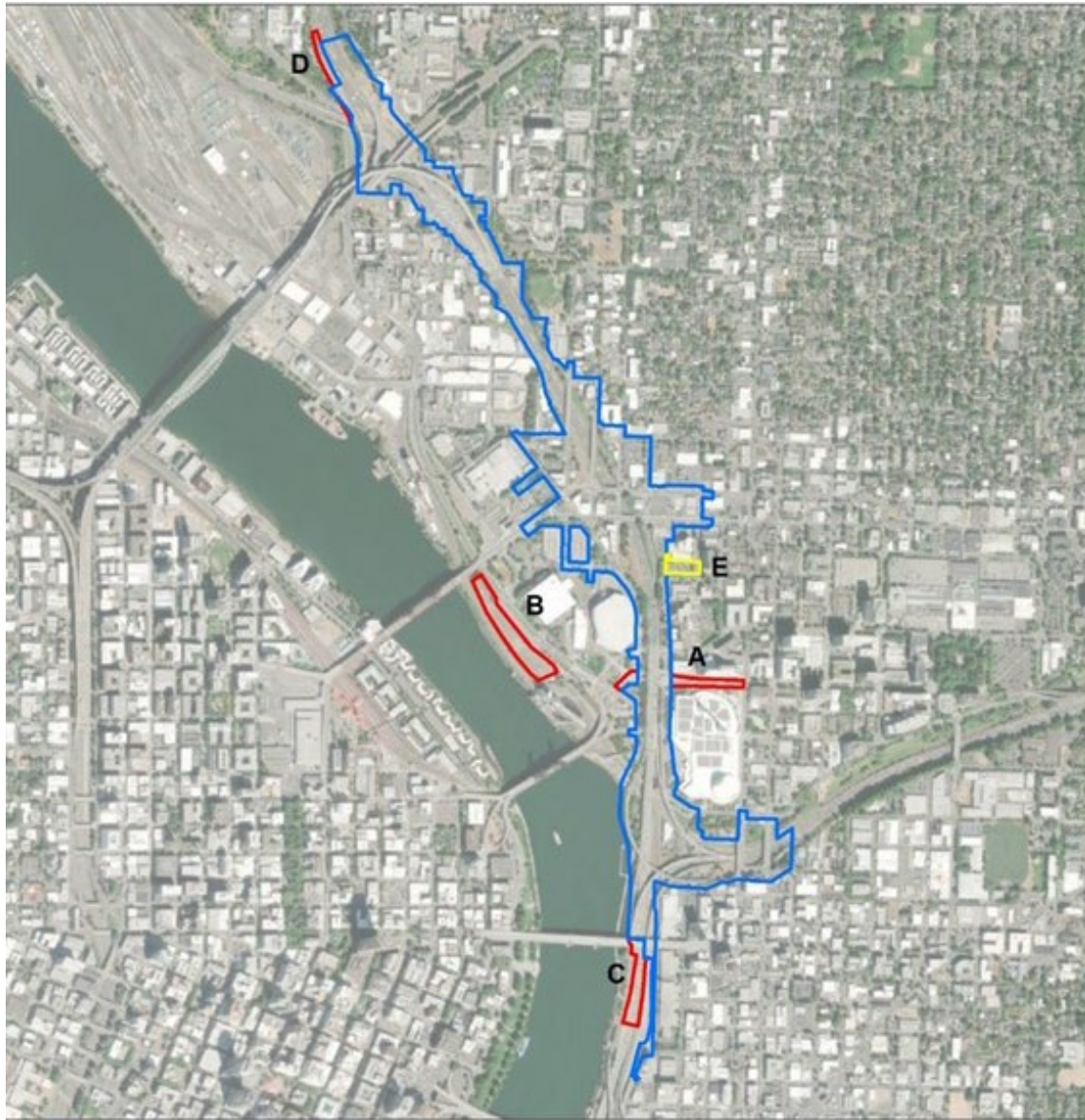
27 The sections below describe the highway cover design changes and the design changes that
28 resulted from advancements in project engineering and are incorporated into the Revised Build
29 Alternative.

30 2.2 PROJECT AREA

31 The Project Area is defined as the area within which improvements are proposed, including
32 where permanent modifications to adjacent parcels may occur and where potential temporary
33 impacts from construction activities could result. As Project design information advanced, some
34 changes required expansion of the Project Area presented in the REA and FONSI, and in one
35 location the Project Area was reduced (Figure 2). In total, approximately 8.7 acres would be
36 added to the Project Area. The changes are as follows, with letter references to the areas
37 shown in Figure 2:

-
- 1 • A: Utility conflicts with Light Rail Transit along NE Holladay Street between N Interstate
2 Avenue and NE Martin Luther King Jr. Boulevard required expanding the Project Area by
3 1.9 acres to include additional overhead utility relocations (label A in Figure 2).
- 4 • B: An existing parking lot (known as Aegean Lot) south of N Interstate Avenue and the
5 Broadway Bridge may be used for contractor staging during construction and is added to
6 the Project Area (label B, Figure 2). ODOT identified this 4.3-acre construction staging area
7 for contractor use based on its location, size, and suitability recognizing that, because of
8 the urban setting and high-density land development in the construction area, it would be
9 difficult for a construction contractor to find the space needed near or next to the project
10 work areas for equipment staging, material storage, and the required co-location space
11 for the contractor/construction personnel. This location meets all of the Project
12 requirements: large level open space, proximity to the project work areas, and access for
13 staging/storage of materials and equipment. Any materials stored in the area and site
14 runoff would be subject to the same regulations as required throughout the project site.
- 15 • C: The southern end of the Project Area is expanded by 2.4 acres to include the portion of
16 I-5 south of the Burnside Bridge proposed for a retrofit of the existing bridge rail,
17 restriping the existing freeway, and installation of new guide signs (label C, Figure 2).
- 18 • D: At the northernmost end of the Project Area, a 1.1-acre area of ODOT right of way
19 along the I-5 shoulders is now included in the Project Area for fiber optic conduit (label D,
20 Figure 2).
- 21 • E: In one location, the Project Area was reduced by 1.0 acre. A parking lot west of the
22 intersection of NE Clackamas St and NE 2nd Avenue is no longer needed for the Project
23 due to the removal of the Clackamas Bicycle and Pedestrian Crossing (label E, Figure 2).

1 Figure 2 Previous and Current Project Area.



- FONSI Build Alternative
- Revised Build Alternative Additional Area
- Reduced Project Area

I-5 ROSE QUARTER IMPROVEMENT PROJECT PROJECT AREA



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2.3 I-5 MAINLINE IMPROVEMENTS CHANGES

The Build Alternative included relocation of the I-5 southbound on-ramp at N Wheeler Avenue to N/NE Weidler Street at N Williams Avenue via the new Weidler/Broadway/Ramsay highway cover, construction of auxiliary lanes and full shoulders (12 feet in width) on I-5 between I-405 and I-84 in both directions, and associated improvements to I-5 through the Project Area. The Revised Build Alternative includes the following changes to those elements of the Build Alternative:

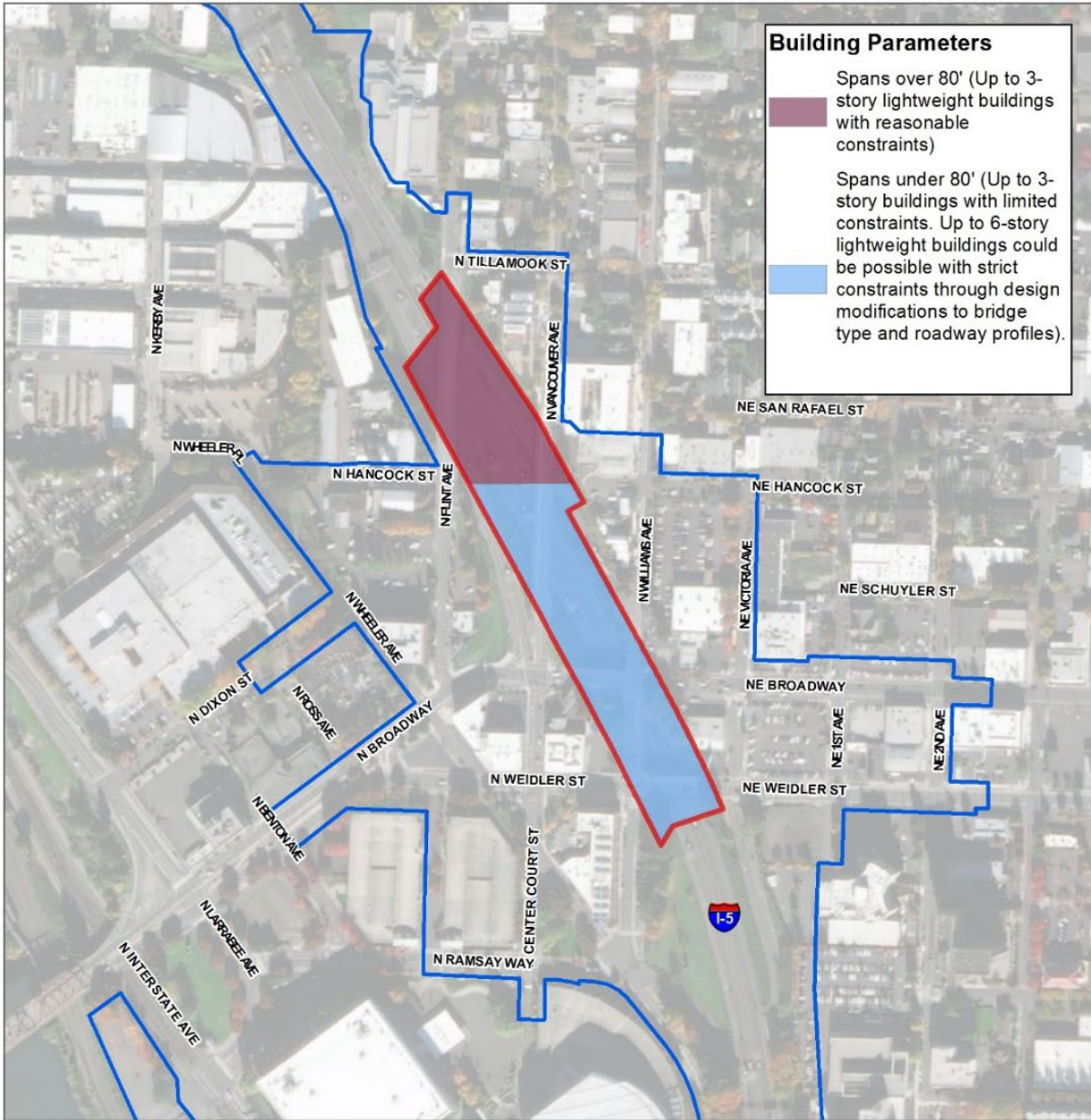
- Move the I-5 southbound exit ramp termini from N Broadway to N Williams Avenue at NE Wheeler Avenue.
- Reduce the freeway median shoulder through the entire Project Area, from 12 feet to 8 feet (4 to 5 feet within highway cover). The outside shoulder width of 12 feet remains unchanged.
- Relocate Noise Wall 24 from N Commercial Avenue near Harriet Tubman Middle School to attach to Walls 1 and 2 along the east edge of I-5.
- Keep the I-5 southbound entrance ramp from NE Wheeler Avenue/N Williams Avenue/N Ramsay Way on the existing alignment rather than relocate it to parallel N Williams Avenue.
- On I-5 south of the Burnside Bridge: retrofit existing bridge rail, restripe freeway in both the NB and SB directions, and install new guide signs on an existing sign structure in the SB direction.

2.4 HIGHWAY COVER CHANGES

The Build Alternative included the construction of two highway cover structures over I-5 for roadway crossings and other purposes. The Revised Build Alternative, based on Hybrid 3 (see Figure 1), includes the following changes to the highway covers:

- Provide one continuous highway cover over I-5 rather than separate covers at the existing N Flint Avenue, NE Weidler Street, NE Broadway, N Williams Avenue, and the N Vancouver Avenue overcrossings.
- Expand the limits of the highway cover by approximately 35 feet to the west, and approximately 400 feet to the north.
- Design and construct the highway cover to accommodate multi-story buildings. Due to span length and site constraints, design would constrain building size, location, type, and use on portions of the cover (Figure 3). Generally, buildings up to three stories could be accommodated throughout the highway cover. Buildings of up to six stories could be accommodated where span lengths are shorter than 80 feet with strict design constraints.

1 Figure 3 Building Parameters on the Cover



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1 Future development on the highway cover would follow a community process according to the
2 City-led Community Framework Agreement, as described in Section 2.1. ODOT anticipates this
3 process could continue past completion of cover construction.

4 As part of the Project, ODOT anticipates programming interim uses on the highway cover for
5 the time period between Project completion and when the City-led development process would
6 be implemented. Upon Project completion, the added surface space created by the highway
7 cover over I-5 could provide an opportunity for new and modern bicycle facilities, making the
8 area more connected, walkable and bike friendly. It could also provide opportunity for various
9 potential types of public spaces, to be precisely determined during the Project’s final design
10 phase and through robust community engagement, consisting of one or more of the following
11 types of uses:

- 12 • Landscaped areas for active and passing recreation and/or to provide a buffer, backdrop
13 and visual comfort, such as gardens, lawns or planter beds.
- 14 • Plazas and hardscaped open space for active and passive recreation, such as courts,
15 plazas, splash pads, picnic areas, and community gathering spaces.
- 16 • Interpretive signage, historical markers, landmarks and other areas of historical
17 recognition and narrative such as art pieces and other historical signage/kiosks and
18 pavement focused on the historic Albina community.
- 19 • Temporary and lightweight vertical features to support episodic, mobile commercial
20 activities such as a food market shed, eating pavilion, food carts, or picnic venues.

21 These features may be removed upon implementation of the development determined by the
22 community process or may be incorporated into that development.

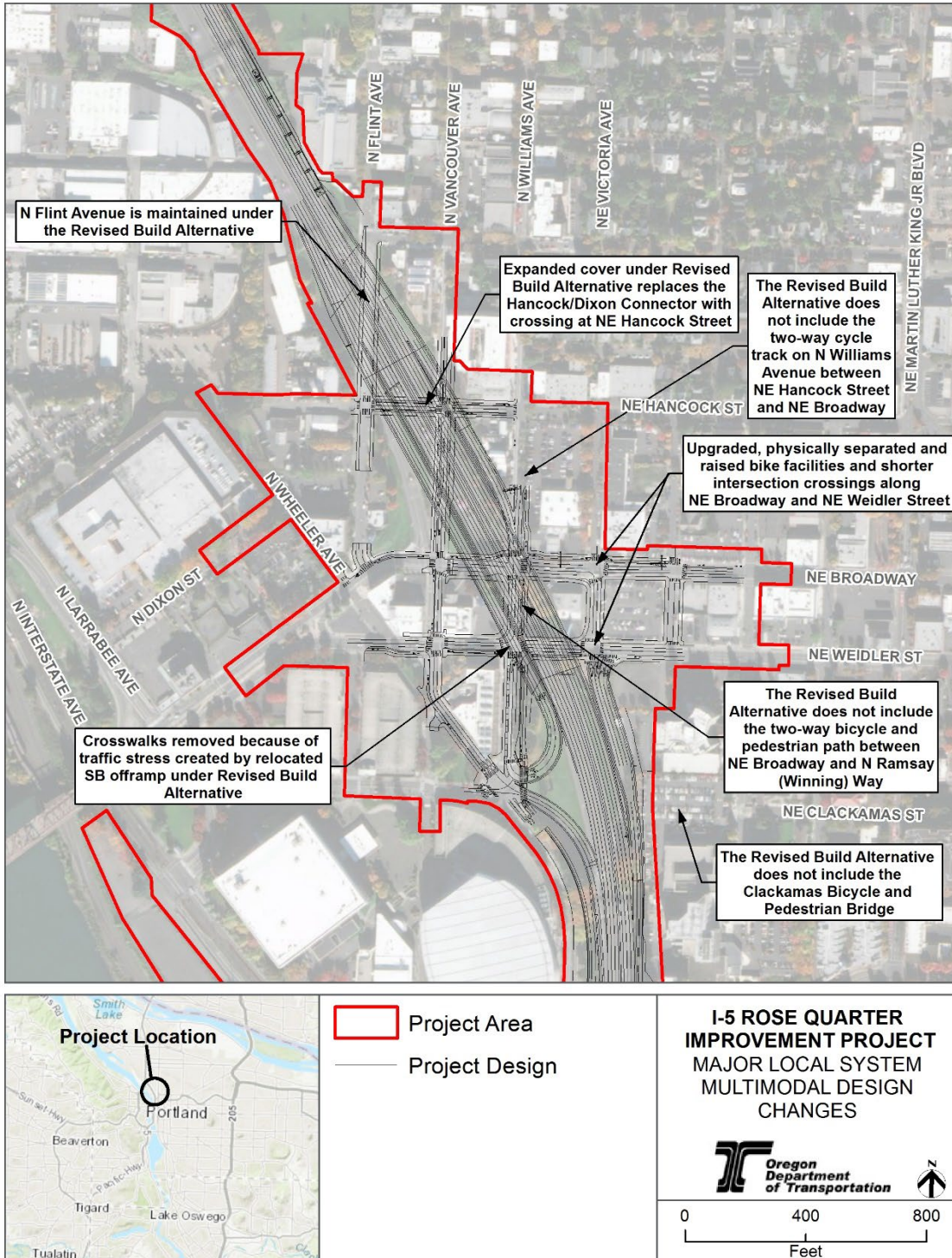
23 2.5 RELATED LOCAL SYSTEM MULTIMODAL 24 IMPROVEMENTS CHANGES

25 The Build Alternative included construction of a new bicycle and pedestrian bridge over I-5 at
26 NE Clackamas Street and other local street improvements. The Revised Build Alternative
27 includes the following changes to these improvements to accommodate the Hybrid 3 design
28 concept and related changes in traffic patterns (see Figure 4 below):

- 29 • Remove the Clackamas Bicycle and Pedestrian Crossing from the Build Alternative.
- 30 • Enhance pedestrian and bicycle improvements along NE Broadway and NE Weidler Street.
- 31 • Connect N Flint Avenue across I-5 from NE Tillamook Street to N Hancock Street and
32 terminate it at N Broadway.

-
- 1 • Remove the NE Hancock Street overcrossing of I-5, connecting to N Dixon Street. NE
2 Hancock Street would cross I-5 and connect to N Flint Avenue as part of the expanded
3 highway cover.
 - 4 • Remove the two-way cycle track on N Williams Avenue between NE Hancock Street and
5 NE Broadway and a two-way bicycle and pedestrian path between NE Broadway and
6 N Ramsay Way and instead convert the on-road bike lane to a protected bike lane, with a
7 transition to the existing on-road bike lane south at or near NE Hancock Street.
 - 8 • Close the crosswalk across NE Broadway on the west side of N Williams Avenue and the
9 crosswalk across N Williams Avenue north of NE Weidler Street.

1 Figure 4 Local System Multimodal Design Changes



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3.0 REGULATORY FRAMEWORK

The regulatory framework is the same as was described in the 2019 Archaeological Resources Technical Report. Since that time, ODOT entered into a new agreement document for the Project to address potential archaeological resources, which supplements the regulatory framework.

3.1 PROGRAMMATIC AGREEMENT (2019)

Subsequent to the 2019 Archaeological Resources Technical Report, in 2019, ODOT entered into a PA executed by the FHWA, Oregon State Historic Preservation Office (SHPO), and ODOT for *Identifying and Evaluating Archaeological Resources During the Development and Construction of the Interstate 5 Rose Quarter Improvement Project* (referred to herein as the “2019 PA”) (ODOT 2019). The 2019 PA has stipulations for preconstruction and construction monitoring. Due to the amount of development and impervious surfaces in the Project Area of Potential Impact (API), ODOT agreed to monitor pre-construction investigations such as environmental and geotechnical investigations. This information would be used to help characterize high-probability areas (HPAs) that are more likely to have buried archaeological materials. As described below in Section 5.1.2 (Monitoring of Recent Geotechnical Studies), since its execution, ODOT has been completing archaeological monitoring for the Project in adherence to the stipulations of the PA.

4.0 METHODOLOGY AND DATA SOURCES

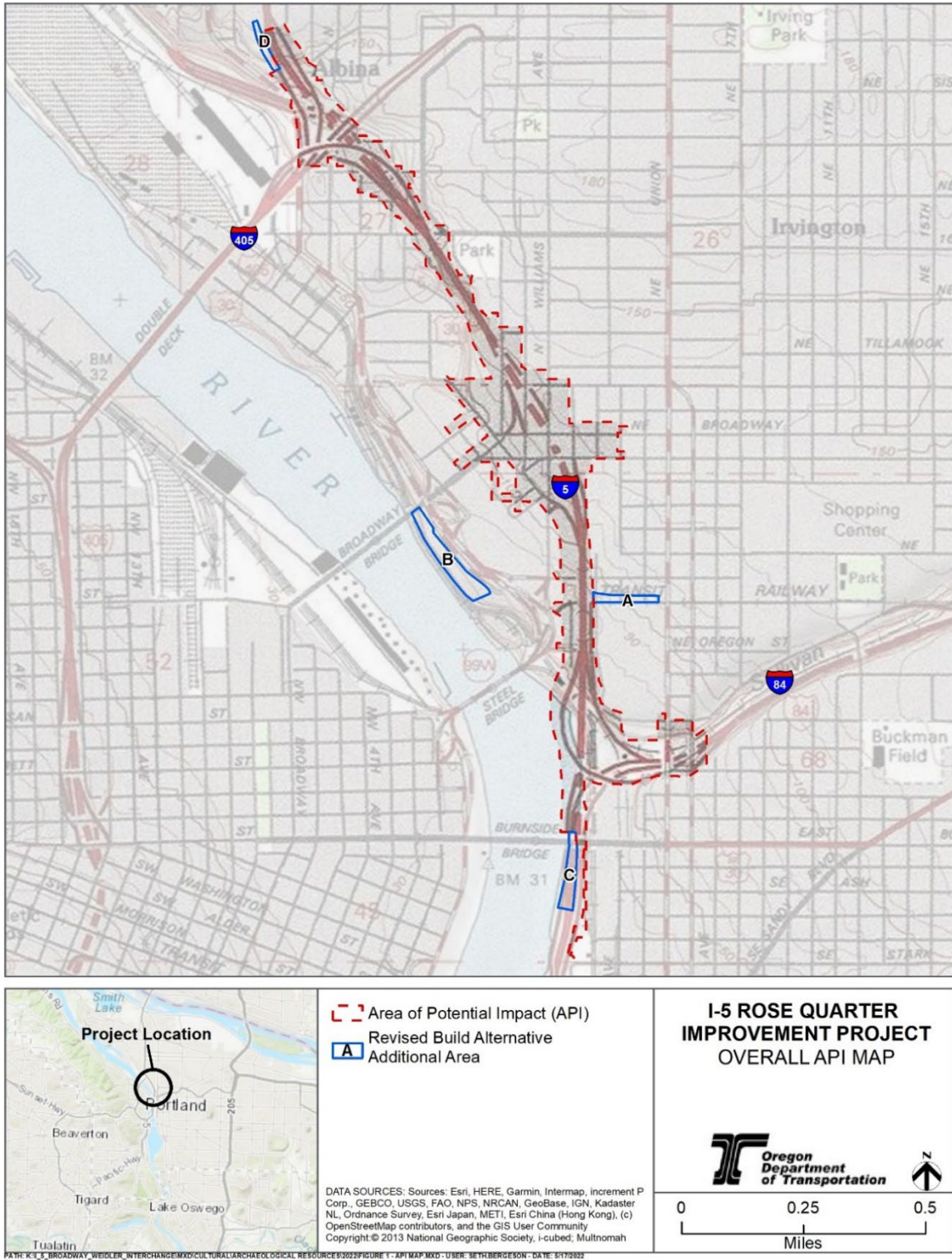
The methodology and data sources are the same as those described in the 2019 Archaeological Resources Technical Report. However, ODOT updated these data sources and completed a reconnaissance field visit to examine Revised Build Alternative areas not previously assessed.

4.1 AREA OF POTENTIAL IMPACT

The API for archaeological resources is the same as the Project Area shown in Figure 2. The API for the Revised Build Alternative is expanded by 8.7 acres from the API in the 2019 Archaeological Resources Technical Report with the addition of four areas (Areas A through D) where Project ground disturbance could occur. These areas are within Sections 27 and 34 of Township 1 North, Range 1 East, Willamette Meridian, as shown on the Portland, Oregon, U.S. Geological Survey (USGS) 7.5-minute quadrangle (1990) (Figure 4). The vertical API within the newly added areas is pending engineering design, but ground disturbance would range from surface impacts related to contractor staging on an existing gravel parking area (Area B), to

-
- 1 subsurface excavation work for utility and conduit installation (Areas A and D) and sign
 - 2 installation along the interstate right-of-way (Area C).

1 Figure 5. Project Area and API for archaeological resources



2

1 4.2 RESOURCE IDENTIFICATION AND EVALUATION

2 This analysis was based on a desktop review and windshield reconnaissance to identify areas of
3 potential archaeological sensitivity within the expanded API. Project team cultural resource
4 specialists who meet the Secretary of the Interior’s (SOI) Professional Qualification Standards
5 (36 Code of Federal Regulations Part 61) for archaeology completed this review.

6 Due to the urban setting of the Project, traditional methods of archaeological surface survey
7 and exploratory shovel probing are not practicable. The desktop review for this Project included
8 a literature review of agency documents, secondary sources, historic maps, and aerial
9 photographs. The literature review establishes the relative potential for archaeological
10 resources to be affected by the Project and expectations for inadvertent discoveries.

11 4.2.1 Data Sources

12 ODOT used the same data sources as those consulted in 2019, with the following updated
13 reviews to include the expanded areas of the Revised Build Alternative:

- 14 • Oregon SHPO Archaeological database to confirm the presence or absence of previously
15 documented archaeological resources within the API
 - 16 • Historical ODOT right-of-way files
 - 17 • General Land Office and USGS topographic maps
 - 18 • Sanborn maps
 - 19 • Portland City archives
 - 20 • Google open-source maps (i.e., Electric Railways of Portland [Booth 2017])
- 21

22 4.2.2 Consultation

23 ODOT and FHWA are continuing consultation with descendant communities (i.e., as identified
24 by the Commission of Indian Services) as well as other consulting parties with a demonstrated
25 interest in cultural resources such as the Architectural Heritage Center, Oregon Black Pioneers,
26 and Restore Oregon. To date, ODOT is unaware of specific traditional cultural properties or
27 other historic properties of religious significance within the API based on consultation
28 discussions. On-going consultation could identify additional cultural resources or concerns.

29 4.2.3 Field Reconnaissance

30 To supplement the desktop review, an SOI and Oregon qualified professional archaeologist
31 completed a site visit of the Revised Build Alternative on April 27, 2022. The reconnaissance-
32 level site visit documented existing conditions and confirmed the presence of impermeable
33 surfaces and development throughout the API.

34

5.0 AFFECTED ENVIRONMENT

The affected environment is the same as that evaluated in the 2019 Archaeological Resources Technical Report. However, this section includes updated information for existing surface conditions based on a reconnaissance visit to the Revised Build Alternative expanded areas, recent geotechnical studies, the Oregon SHPO records search, and review of historic maps and aerial photographs that include the Revised Build Alternative.

5.1 PHYSICAL SETTING

5.1.1 Existing Surface Conditions

The field reconnaissance confirmed that there are no areas suitable for traditional pedestrian survey or exploratory shovel probing based on surface conditions (Figure 6). No archaeological resources were identified within the API based on this visit.

Area A (along NE Holladay Street) is characterized by modern development and a streetscape with active transit rail lines. This area is developed as part of the Rose Quarter Transit Center.

Area B (Aegean Lot) is a fenced gravel- and asphalt-surfaced parking area along the east bank of the Willamette River. Although no resources were observed here as part of the reconnaissance, to the south and outside the API, intact brick-shaped basalt cobblestone (also locally known as Belgian Block [Columbia River Images 2022]) and rails of a former streetcar alignment are eroding through the asphalt in a nearby public road¹ (Figure 7). An example of early streetcars and a typical Portland streetscape is provided in Figure 8. The presence of this type of urban archaeology feature in the Rose Quarter illustrates the potential for similar features to be encountered wherever historic rail lines traversed the API. As illustrated in Figure 12, several other rail lines bisected the API.

Area C (along I-5, south of Burnside Bridge) is characterized by cut and fill landforms, with a gravel parking area/access road beneath the highway ramp. There are utilities, buildings, and parking lots adjacent to the API, and associated development has disturbed the upper few feet of the soil profile, at a minimum.

¹ The alignment is visible in the road right-of-way at the intersection of N. Thunderbird Way with a parking lot south of the Aegean Lot but was outside the API and therefore not formally recorded for this Project. Here, rather than having been removed, the rails and cobblestone road were left in place and paved over. These may be associated with the Willamette Bridge Railway Company's Portland and Albina Route, which was the first electric line to operate in Oregon beginning in 1889 (Thompson 2010:55). Based on historic maps and aerial imagery, the former electric rail alignment traversed the east-west oriented road south of Area B (NE Holladay Road) as part of the east approach to the original (1888) Steel Bridge (see Figure 9). Remnants may extend east-west through the Right to Dream Too facility located to the adjacent south of Area B.

-
- 1 Area D (along I-5, north of the I-405 interchange) is characterized by a steep roadway
 - 2 embankment associated with cut and fill of southbound I-5 southbound and the I-405 off-ramp.
 - 3 Buildings and utilities abut this section of the API.

- 1 Figure 6. Existing Surface Conditions at the Newly Added Areas of the Revised Build Alternative
- 2 (April 27, 2022).



Area A, Rose Quarter Transit Center, facing northwest



Area A, NE Holladay Street facing east



Area B, proposed contractor parking lot at the North Aegean Parking Lot, facing southwest



Area B, proposed contractor parking lot at the North Aegean Parking Lot, facing west.



Area C, I-5 ramp with gravel road, fill berm, utilities, and adjacent building, facing north



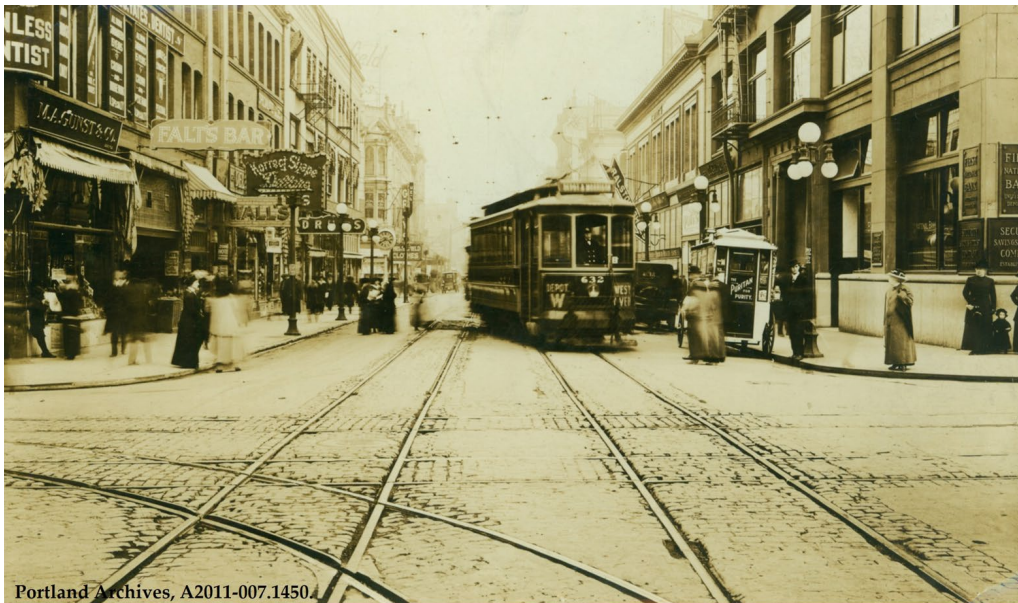
Area D, southbound I-5 with steep shoulder fill embankment, facing south.

1 Figure 7. Example of urban archaeology feature (exposed rails and cobblestone) south of the
2 API along N. Thunderbird Way, facing southeast (April 27, 2022).



3

4 Figure 8. Example of electric streetcar, rails, and cobblestone roads in Portland (1909) (City of
5 Portland 2022a).



6



1 5.1.2 Monitoring of Recent Geotechnical Studies

2 As summarized in the 2019 Archaeological Resources Technical Report, ODOT completed
3 geotechnical studies between the 1960s and 1990s for multiple projects along I-5 and
4 encountered variable amounts of fill extending to depths of up to 15 meters (50 feet) within
5 specific areas of the API. These investigations were not monitored by an archaeologist to assess
6 for a presence or absence of archaeological materials.

7 The depth to which intact archaeological resources may be found is dependent on several
8 factors, including geomorphology and soils, the depth to which historic and modern cut and fill
9 has occurred, and the depth to which Project impacts would occur. The 2019 Archaeological
10 Resources Technical Report provided a preliminary archaeological sensitivity analysis to
11 designate areas with a high probability for buried archaeological resources. To define HPAs, the
12 Project team created a geographic information system (GIS) dataset with baseline
13 environmental and historical data as indicators of sensitivity, including geomorphic surfaces
14 and soils mapping, ethnographic sites data, historic map features, and features on aerial
15 photographs. Additional information included ODOT past geotechnical boring data and
16 engineering design plans for the Project to appropriately consider a vertical API.

17 Consistent with the 2019 PA, ODOT subsequently completed, and is continuing to complete,
18 archaeological monitoring of geotechnical investigations, and is further refining HPAs of the
19 Project Area. Archaeological monitoring has been completed for approximately 100 borings to
20 date. Incidental debris such as brick and glass fragments have been encountered within fill, but
21 no precontact archaeological resources have been identified (Ellis 2022). These investigations
22 are on-going, and an archaeological monitoring report has not yet been finalized.

23 The Project team is continuing to update the archaeological sensitivity dataset. In general, HPA
24 designation focuses on areas where historical maps and aerial photographs show clusters of
25 historic buildings and structures, and where historic-era archaeological resources are more
26 likely to exist below impervious surfaces (Ellis 2022). HPAs also include those areas where
27 historic riverbank (based on historic maps) extends into the API because there is a higher
28 potential for precontact archaeological resources along this landform. Areas with extensive cut
29 and fill associated with highways are designated as low probability. Moderate-probability areas
30 are those not designated as low or high probability.

31 Most of the Revised Build Alternative is considered low to moderate probability because of
32 disturbances associated with highway and road development, with only the proposed
33 contractor staging area parking lot (Area B) adjacent to the Willamette River as high probability.
34 This parking lot is currently undeveloped, but was the site of dense historical development,
35 which is illustrated in Section 5.4 as part of the aerial photograph review. Geotechnical borings
36 are not planned for this parking lot because it would only be used for contractor staging
37 without Project-related subsurface disturbance.

1 5.2 PREVIOUS CULTURAL RESOURCES 2 INVESTIGATIONS

3 The Oregon SHPO Archaeological Database indicates there has been one previous
4 reconnaissance-level survey (Ellis, Chapman, and Fagan 1999) that overlaps the expanded areas
5 of the Revised Build Alternative (within Areas B and D). This survey along the eastern side of the
6 Willamette River did not identify locations at which more systematic survey was warranted, but
7 did inventory a number of historical buildings. There are no previously documented
8 archaeological sites in or adjacent to the Revised Build Alternative.

9 5.3 HISTORICAL MAPS REVIEW

10 The Project team expanded the review of historical maps and photographs from the 2019
11 Archaeological Resources Technical Report to assess the newly added areas of the Revised Build
12 Alternative. The 2019 Report also contains maps and images not repeated in this document.

13 5.3.1 General Land Office Survey Plat

14 The earliest General Land Office map is dated 1852 (Figure 9). Several donation land claims,
15 wagon roads, and trails are depicted within the API. The Wheeler homestead is depicted within
16 Revised Build Alternative Area B, and an east-west oriented wagon road and ferry landing were
17 at or near Area C along the southern end of the API.

18 5.3.2 United States Geological Survey Maps

19 The earliest USGS map dates to 1897 (scale 1:62,000) and shows a rapidly developing Portland,
20 with dense gridded city blocks within the API (Figure 10). Four bridges and a ferry crossing span
21 the Willamette River, with the ferry crossing located west of the API, further north of the
22 present-day location of the Broadway Bridge, at the approximate location of the platted
23 townsite of Albina. A railroad line extends along Sullivan’s Gulch and along the eastern bank of
24 the Willamette River.

25 The 1940 USGS map (scale 1:62,500) shows a densely built-up environment with a few arterial
26 roads; namely, Highway 99E, the present-day location of Martin Luther King Jr. Boulevard, and
27 Highway 30, the present-day location of the Burnside Bridge and Sandy Boulevard. Bridge
28 locations are at their present-day locations (Figure 11). There are large industrial buildings
29 along the river at the south end of the API in proximity to Area C.

30 5.3.3 Electric Railways Map

31 A composite map based on historical streetcar information and an online opensource map
32 (Booth 2017) was created for the Project to illustrate areas where buried rail lines could
33 potentially exist in a subsurface context. Figure 12 shows ca. 1920s and 1940s electric railways

1 of Portland. Although additional lines could exist within the API that are not represented by this
2 map, it does illustrate where some historic electric streetcar lines bisected the API.

3 5.3.4 Sanborn Fire Insurance Maps

4 Sanborn Fire Insurance Maps illustrate extensive historical development within the Revised
5 Build Alternative. Multiple years exist for the Sanborn maps; for a representative twentieth-
6 century snapshot, Appendix A illustrate features formerly present in 1901, and 1924-1950,
7 overlain onto modern aerial imagery. These mapped features help inform the archaeological
8 probability model and construction monitoring effort.

9 Area A (along NE Holladay Street) has water pipes within the street, and dwellings and
10 businesses along the edges of the street, but there are no buildings formerly within the API in
11 this area (Appendix A: Maps K3-K4).

12 Area B (Aegean Lot) has multiple dwellings, flats, accessory buildings, a foundry, fences, water
13 pipes. Rail tracks extend along the west and south of the API (Appendix A: Maps J1, J2, and K1).

14 Area C (along I-5, south of Burnside Bridge) has several small structures labeled as “cabins on
15 floats.” The map notes that “[M]ost of the territory covered by this sheet is low ground and
16 inundated during high water in river.” There is also “planking on posts” running east-west
17 between the Willamette River and the railroad tracks to the east, for planned streets (as of
18 1901) (Appendix A: Maps O1, P1, and Q1).

19 Area D (along I-5, north of I-405 interchange) has three to four dwellings formerly within what
20 is now the interstate corridor (Appendix A: Maps A1-B1).

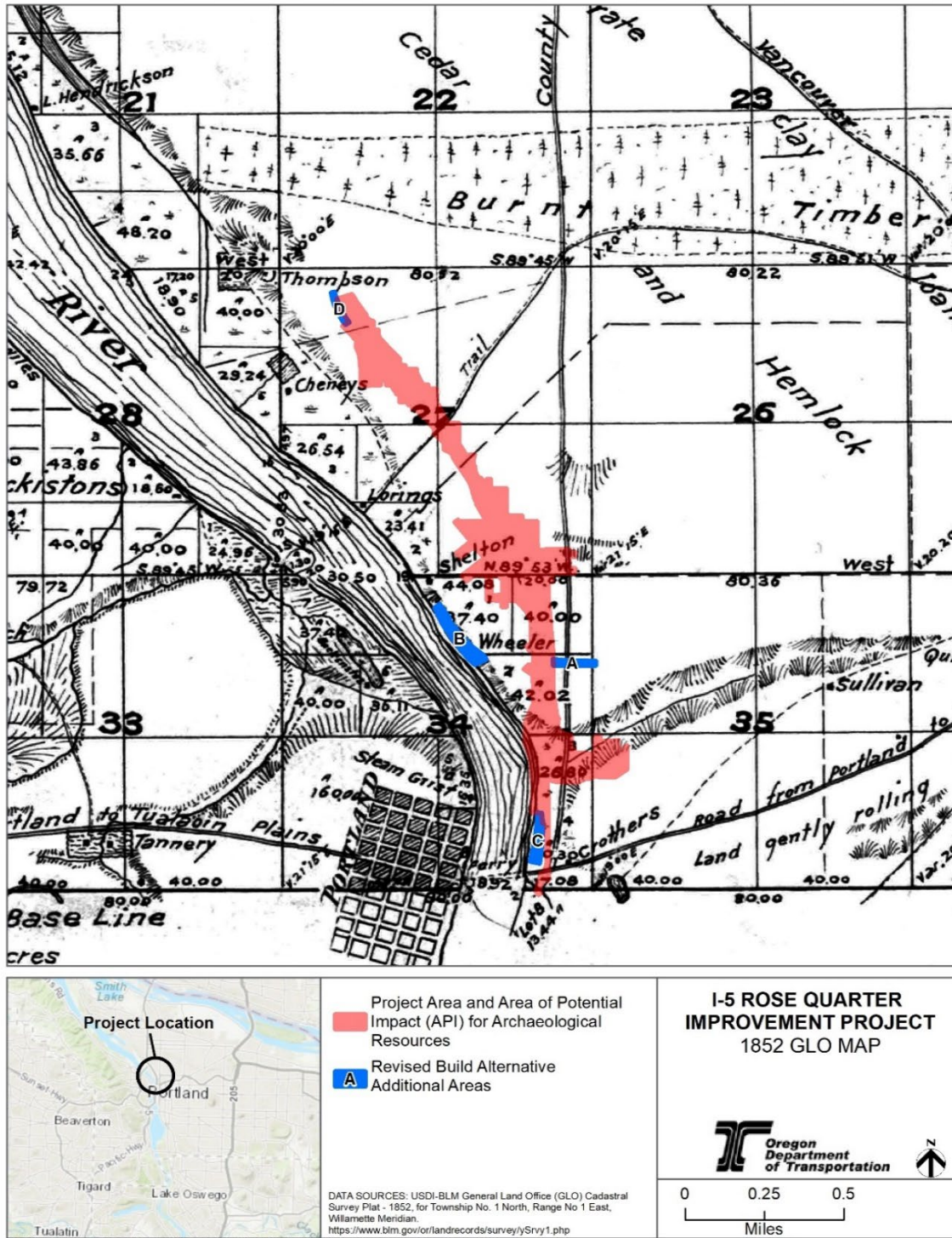
21 These previously mapped buildings appear to have been removed as a result of construction of
22 I-5, Veterans Memorial Coliseum, and adjacent parking areas. Also, a flood in 1948 may have
23 led to the removal of buildings at the southern end of the API (see Figure 15 below).

24 5.3.5 Other Maps

25 A Portland city map dated circa 1958 from the Oregon State Highway Department shows the
26 route of proposed major freeway routes (City of Portland 2022b). Although not all projected
27 highways were actually constructed, this map depicts extant development within the API as the
28 I-5 corridor was being engineered. At that time, the only buildings overlapping the Revised
29 Build Alternative newly added areas were within Area B.

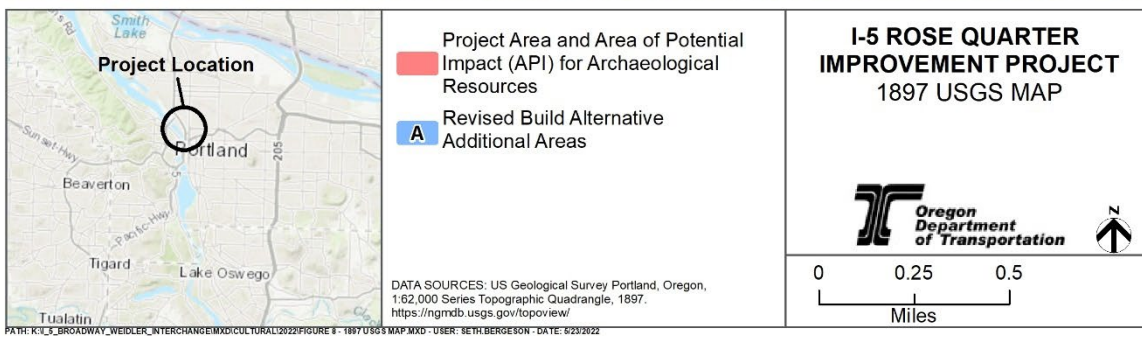
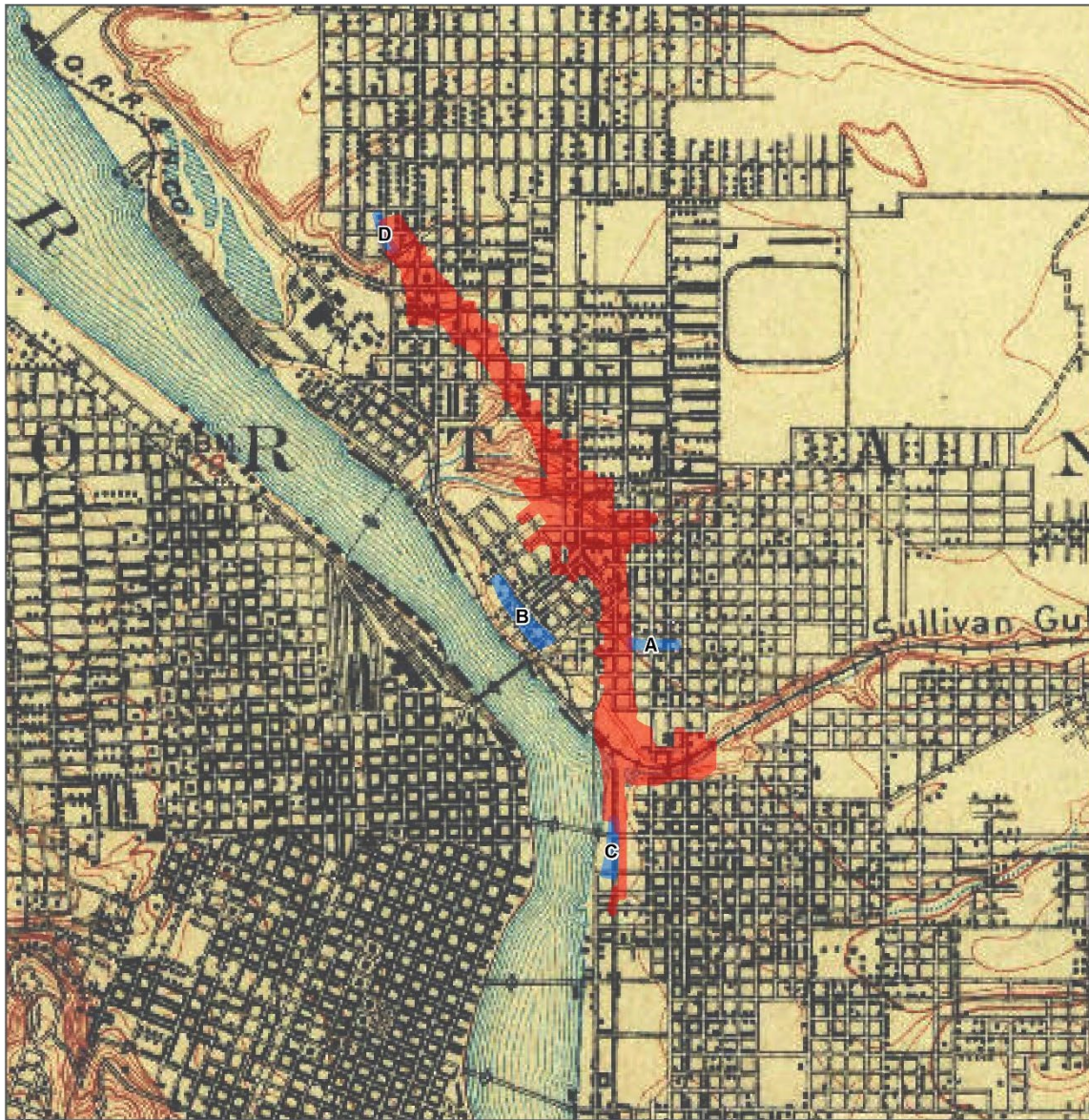
30 ODOT right-of-way, construction, and survey maps from the 1930s-1960s were reviewed for
31 historical features in the newly added Project areas (ODOT 2022). These maps mostly depict
32 overviews of roads; no specific historical features that supplement the other maps and aerial
33 photographs reviews were noted.

1 Figure 9. 1852 General Land Office



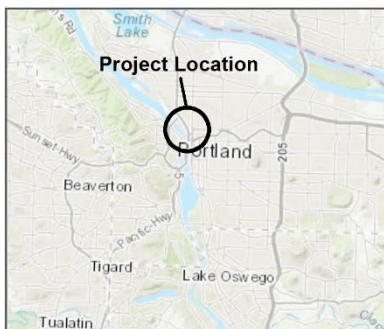
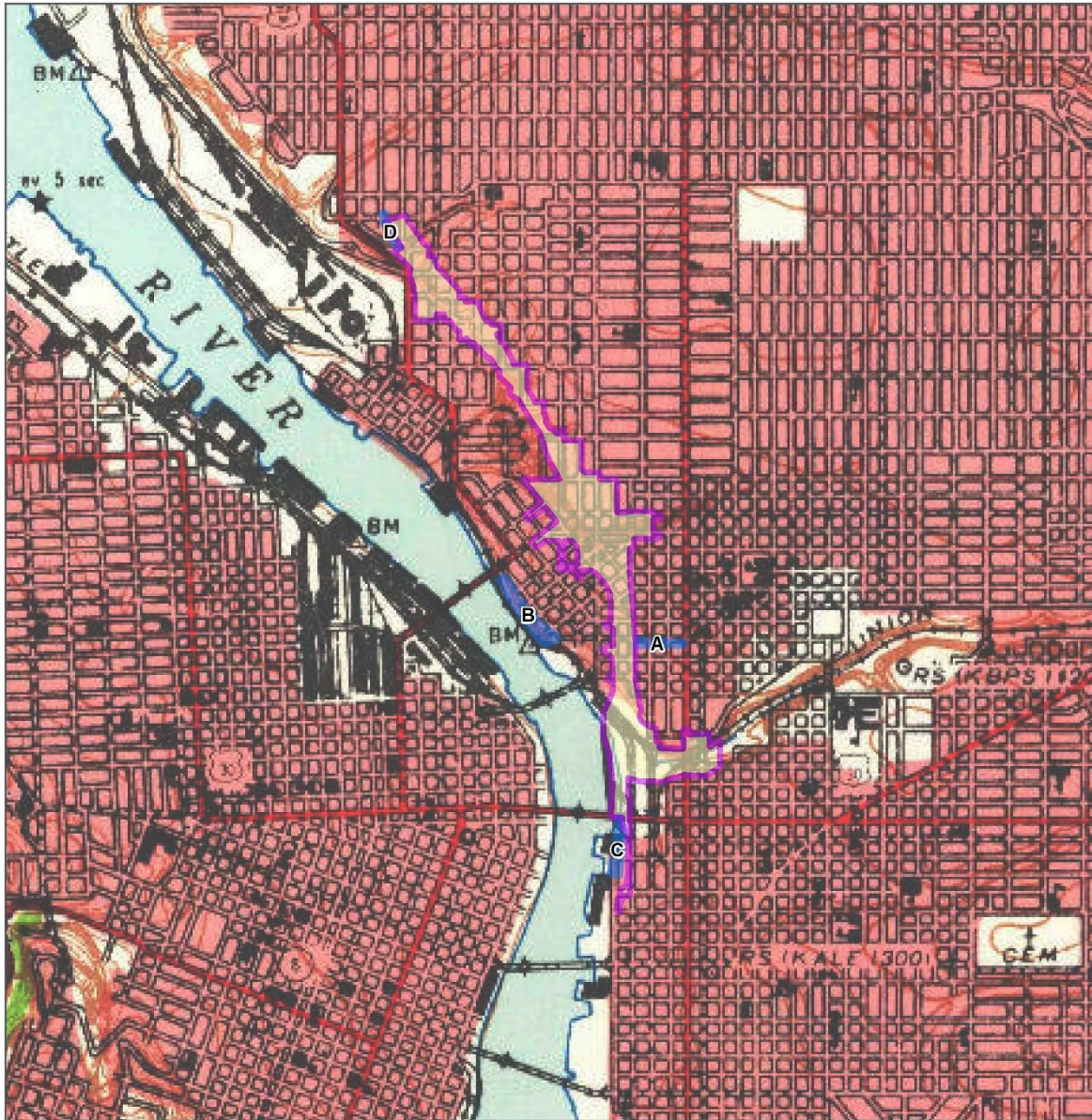
2

1 Figure 10. 1897 USGS topographic quadrangle



2

1 Figure 11. 1940 USGS topographic quadrangle



Project Area and Area of Potential Impact (API) for Archaeological Resources

A Revised Build Alternative Additional Areas

DATA SOURCES: US Geological Survey Portland, Oregon, 1:62,000 Series Topographic Quadrangle, 1940. <https://ngmdb.usgs.gov/topoview/>

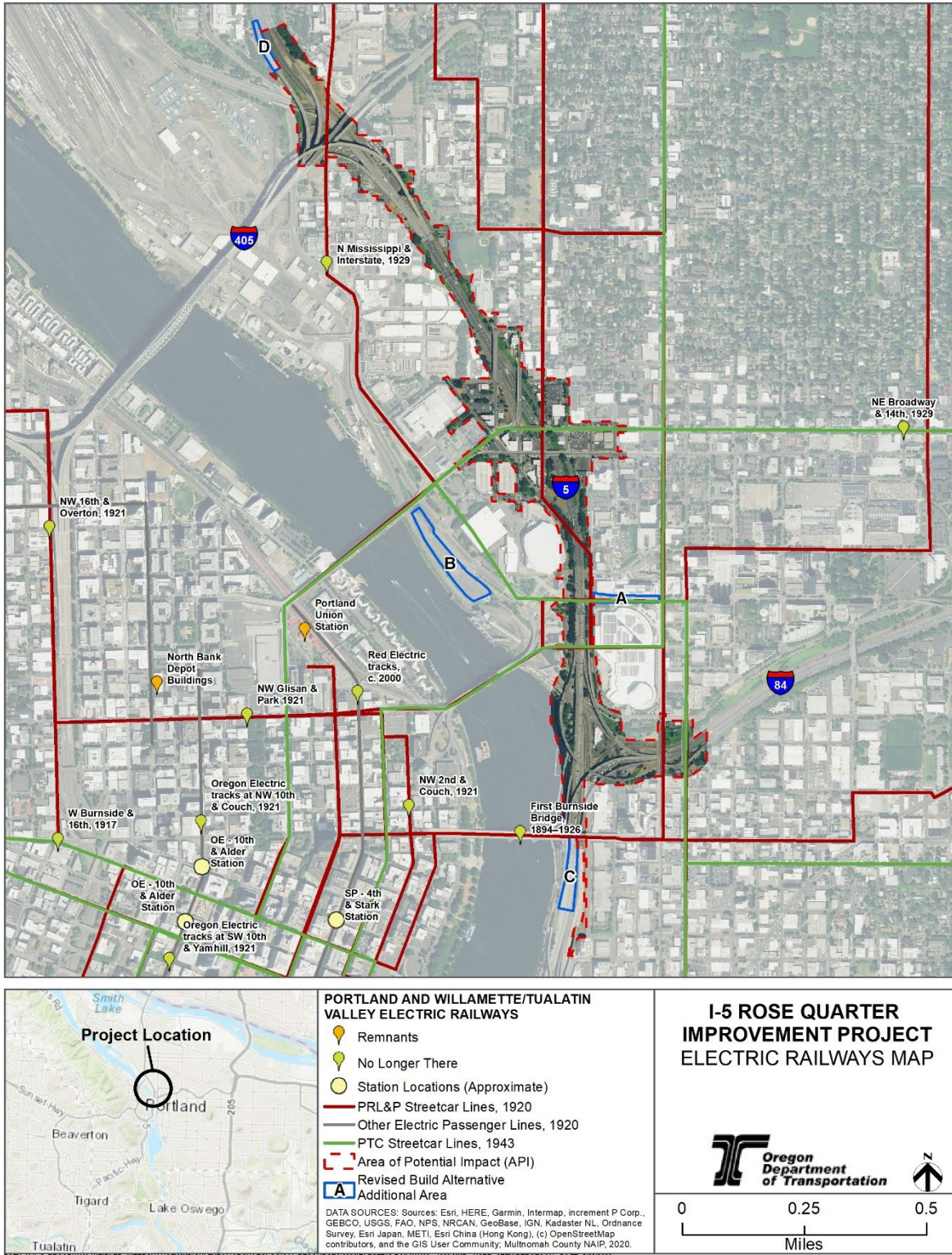
PATH: K:\3_BROADWAY_WEIDLER_INTERCHANGE\MXD\CULTURAL\2022\FIGURE 9 - 1940 USGS MAP.MXD - USER: SETH BERGERSON - DATE: 6/29/2022

I-5 ROSE QUARTER IMPROVEMENT PROJECT
1940 USGS MAP

0 0.25 0.5
Miles

2

1 Figure 12. Electric Railways Map of Portland (adapted from Booth 2017)



2

1 5.4 AERIAL PHOTOGRAPH REVIEW

2 The Project team reviewed aerial photographs to address the Revised Build Alternative’s newly
3 added areas. Although not an exhaustive review, the following photographs illustrate changes
4 to the cityscape through the decades. The 2019 Archaeological Resources Technical Report also
5 contains images that are not repeated herein.

6 Area B, which is now a parking lot, had several buildings, mostly residential dwellings, as of
7 1938 (Figure 13) and 1942 (Figure 14).

8 A flood in 1948 inundated much of the southern portion of the API along what would later
9 become developed as I-5 (Figure 15). This image confirms the periodically inundated nature of
10 the floodplain (noted in earlier Sanborn Fire Insurance Maps) prior to I-5 construction. Area C
11 was almost entirely submerged, with at least one building still present at that time.

12 A 1955 aerial photograph illustrates pre-I-5 development within the API (Figure 16). By 1958,
13 Veterans Memorial Coliseum was under construction and numerous buildings had been
14 removed (Figure 17).

15 A 1962 aerial image of freeway construction illustrates conditions at the time of construction
16 within Revised Built Alternative Areas B and C (Figure 18). Replacing former residences, the new
17 Thunderbird Motel was built at what is now Revised Built Alternative Area B in 1959 and was
18 later demolished in 2002 (email communication from ODOT Historian Robert Hadlow to ODOT
19 Project Manager Carol Snead, January 7, 2022) (Figure 18 and Figure 19).

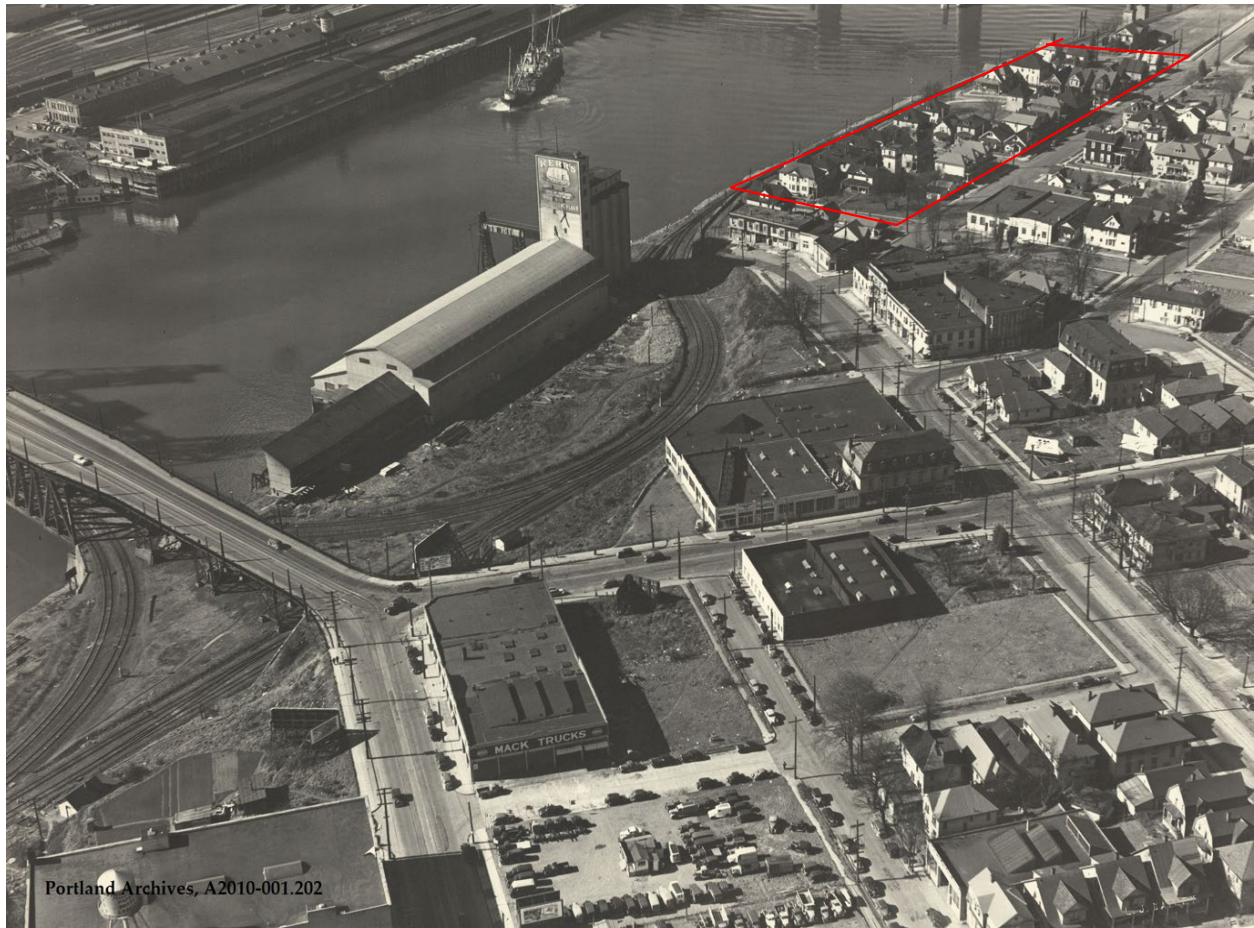
20 A 1973 aerial photograph shows Broadway Bridge in the foreground with the Thunderbird
21 Motel also visible (Figure 19). I-5 can be seen in the background.

- 1 Figure 13. Circa 1938 aerial photograph showing former development at Area B (red polygon;
- 2 now a parking lot) (City of Portland 2022c).



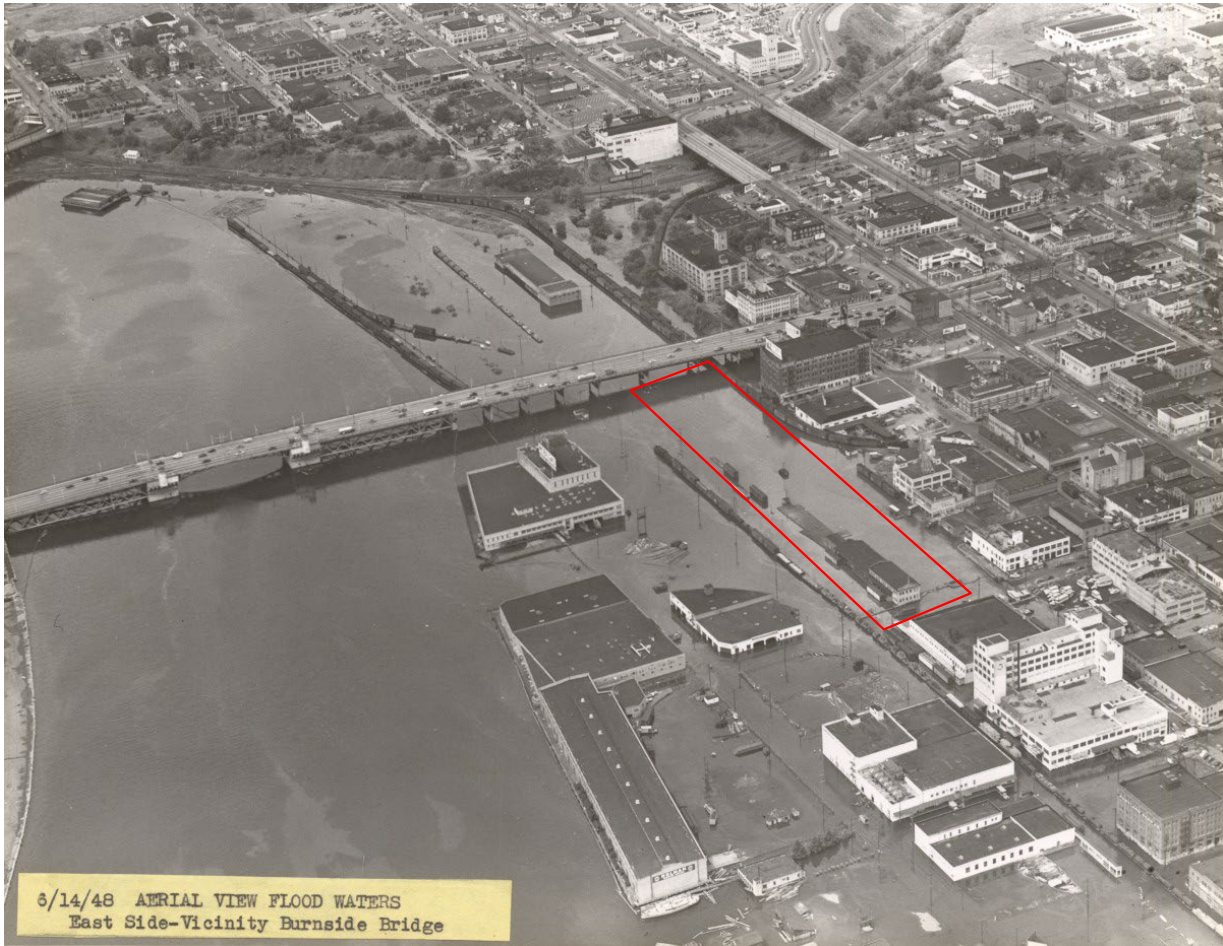
3

- 1 Figure 14. 1942 aerial photograph (red polygon showing approximate location of Area B, now a parking lot) (City of Portland 2022d). Photo looking northwest.
- 2



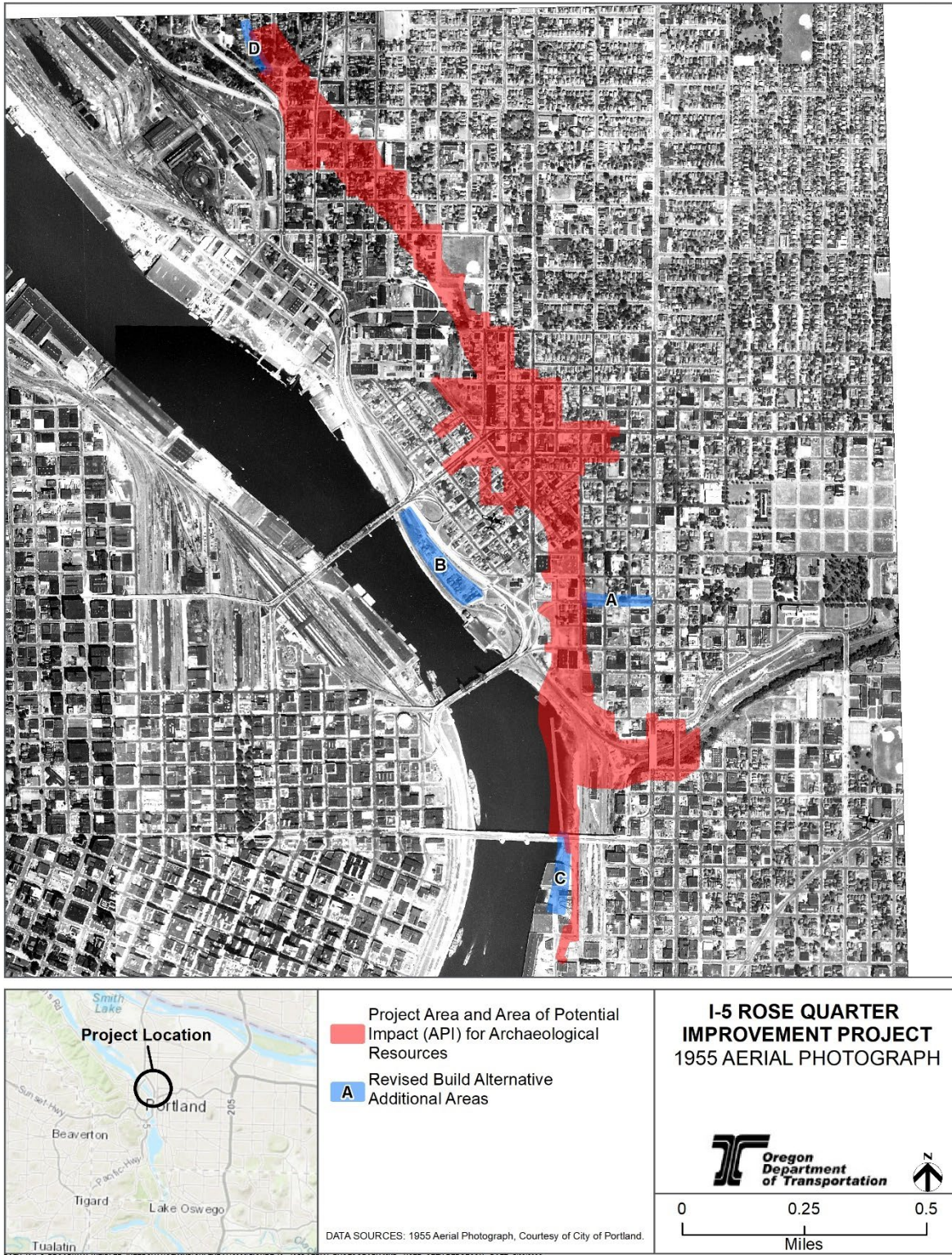
3

- 1 Figure 15. 1948 aerial photograph showing floodwaters at the southern end of the API (red
- 2 polygon approximate location of Area C), south of Burnside Bridge. Photo looking north. (City of
- 3 Portland 2022e).



4

1 Figure 16. 1955 aerial photograph with the API



2

- 1 Figure 17. 1958 aerial photograph showing the future site of Veterans Memorial Coliseum (red
- 2 polygon showing approximate location of Area B, now a parking lot) (City of Portland 2022f).



3

1 Figure 18. 1962 aerial photograph of freeway construction looking north from Banfield Freeway
2 connections, just north of Revised Built Alternative Area C (City of Portland 2022g). Red polygon
3 at center right delineates approximate location of Area A along NE Holladay Street, and center
4 left the location of Area B with the Thunderbird Motel having replaced former residential
5 buildings.

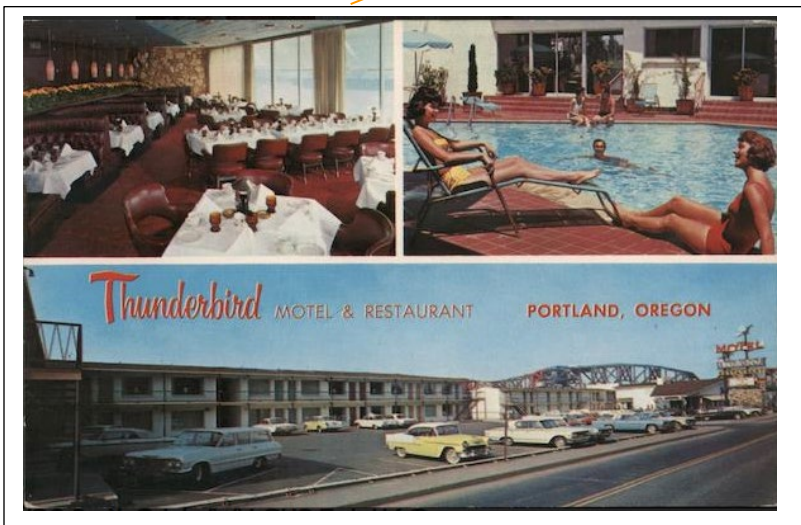


6
7

1 Figure 19. 1973 aerial photograph of Broadway Bridge with I-5 in the background facing
2 northeast (City of Portland 2022h). The former Thunderbird Motel is visible in the foreground
3 within Revised Build Alternative Area B (red polygon). Inset photograph is a postcard of the
4 former Thunderbird Motel (undated; image provided by Robert Hadlow, ODOT historian).



5
6



7



1 5.5 ARCHAEOLOGICAL SENSITIVITY ANALYSIS

2 The 2019 Archaeological Resources Technical Report provided a preliminary archaeological
3 sensitivity analysis (probability mapping) to designate areas with a high probability for buried
4 archaeological resources. The depth to which intact archaeological resources may be found is
5 dependent on several factors, including geomorphology and soils, the depth to which historic
6 and modern cut and fill has occurred, and the depth to which Project impacts would occur. To
7 define HPAs, the Project team created a GIS dataset with baseline environmental and historical
8 data, including geomorphic surfaces and soils mapping, ethnographic sites data, historic map
9 features, and features on aerial photographs. Additional information included ODOT past
10 geotechnical boring data and engineering design plans for the Project.

11 Subsequently, consistent with the 2019 PA, ODOT is completing archaeological monitoring of
12 geotechnical investigations within HPAs. Archaeological monitoring has been completed for
13 approximately 100 borings. To date, incidental debris such as brick and glass fragments have
14 been encountered within fill, but no archaeological resources have been identified (Ellis 2022).

15 These investigations are on-going, and a final report has not yet been completed. However,
16 ODOT is continuing to update the sensitivity analysis (Ellis 2022). In general, the HPA
17 designation focuses on areas where historical maps and aerial photographs show clusters of
18 historic buildings and structures, and where historic-era archaeological resources could exist
19 below impervious surfaces. HPAs also include those areas where historic riverbank (based on
20 historic maps) extends into the API; and therefore, where there is a higher potential for
21 precontact archaeological resources. Areas with extensive cut and fill associated with highways
22 are designated as low probability. Moderate-probability areas are those not designated as low
23 or high.

24 Most of the Revised Build Alternative is currently considered to have low to moderate
25 probability because of disturbances associated with highway and road development, with only
26 the proposed contractor staging area (Area B) adjacent to the Willamette River considered to
27 be high probability. This parking lot is currently undeveloped, but was the site of dense
28 historical development, which is illustrated in Sections 5.3 and 5.4 as part of the historical maps
29 and aerial photograph review.

30 5.6 ARCHAEOLOGICAL TREATMENT PLAN

31 As part of the 2019 PA, ODOT developed an Archaeological Treatment Plan for the Project
32 outlining steps to identify, evaluate, and treat archaeological or human remains discoveries that
33 could be made as a result of the Project (ODOT 2019). ODOT is currently monitoring pre-
34 construction ground-disturbing investigations following the Archaeological Treatment Plan and
35 anticipates additional monitoring during Project construction.

36

6.0 ENVIRONMENTAL CONSEQUENCES

6.1 NO-BUILD ALTERNATIVE

Environmental consequences of the No-Build Alternative are the same as those described in the 2019 Archaeological Resources Technical Report.

6.2 REVISED BUILD ALTERNATIVE

6.2.1 Direct Impacts

The Revised Build Alternative is similar to the Build Alternative, except that the Revised Build Alternative adds 8.7 acres to the API. In general, when acreage of a project increases, the potential for direct impacts to inadvertent archaeological discoveries increases due to the larger construction area.

However, like the Build Alternative, the Revised Build Alternative has no previously documented archaeological resources within the API. Since 2019, ODOT’s archaeological consultant has been completing archaeological monitoring of environmental and geotechnical borings. No archaeological resources have been identified. The negative findings support assessment of certain portions of the API as low probability for archaeological resources; for example, where previous cut-and-fill disturbances associated with interstate construction occurred. The only newly added area of the Revised Build Alternative that has high probability is Area B—the proposed contractor staging area where subsurface archaeological resources could reasonably exist based on the extent of previous development in this area (Ellis 2022); however, no subsurface work is planned for this area. The other newly added areas of the Revised Build Alternative are low to moderate probability for archaeological resources primarily because of disturbances associated with previous highway and road development. Furthermore, these low to moderate probability areas (Areas A, C, and D) of the Revised Build Alternative would be subject to ground disturbance primarily associated with utility and sign installation, which would most likely occur within the depth of previously disturbed cut-and-fill areas along the interstate right-of-way.

Most Project effects to archaeological resources, if present, would occur during short-term construction due to potential destruction and displacement caused by invasive ground disturbances. Direct effects to archaeological resources could result from alteration, or partial or complete destruction, through mobilization of heavy equipment, compaction or excavation of soils within a site, or displacement of cultural materials. Construction could remove archaeological resources from their original locations, and these would not be anticipated to return to previous levels even after actions that caused the impacts cease. ODOT will adhere to

1 the 2019 PA stipulations and Archaeological Treatment Plan in the event of a new discovery of
2 archaeological resources or human remains (ODOT 2019).

3 6.2.2 Indirect Impacts

4 Indirect impacts of the Revised Build Alternative are the same as those described in the 2019
5 Archaeological Resources Technical Report.

6 6.3 CUMULATIVE EFFECTS

7 Cumulative effects of the Revised Build Alternative are the same as those described in the 2019
8 Archaeological Resources Technical Report.

9 6.4 CONCLUSIONS

10 No archaeological sites have been identified within the API. Based on the 2022 site
11 reconnaissance and record search update, much—if not all—of the Revised Build Alternative
12 has been previously disturbed by prior development within the upper soil horizons.
13 Archaeological monitoring of approximately 100 soil borings has occurred since 2019, and no
14 archaeological resources have been identified to date (Ellis 2022). This information is being
15 used to revise archaeological sensitivity mapping that will help refine locations for construction
16 monitoring.

17 It is possible that archaeological resources will be encountered as the Project is implemented.
18 Direct and indirect impacts on archaeological resources could occur. ODOT would treat
19 archaeological resources identified as a result of the Project through implementation of the
20 stipulations of the 2019 PA among FWHA, SHPO, and ODOT, which outlines consultation
21 protocols and an Archaeological Treatment Plan for identifying and evaluating resources and
22 resolving impacts (ODOT 2019). Compliance with the PA is required as part of the Project and is
23 written into Project contracts. The Project would continue to incorporate the avoidance,
24 minimization, and mitigation recommendations provided in the FONSI and REA (FHWA and
25 ODOT 2020).

26

27 7.0 AVOIDANCE, MINIMIZATION, AND 28 MITIGATION MEASURES

29 Avoidance, minimization, and mitigation measures of the Revised Build Alternative are the same
30 as those for the FONSI and REA (FHWA and ODOT 2020), and as provided in the 2019 PA (ODOT
31 2019).

32

8.0 PREPARERS

NAME	DISCIPLINE	EDUCATION	YEARS OF EXPERIENCE
Sarah McDaniel	Archaeological Resources	M.A., Anthropology	22

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