Oregon
John A. Kitzhaber, MD, Governor

Parks and Recreation Department
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October 5, 2011

Mr. James Norman
ODOT Environmental
355 Capitol NE Rm 314
Salem, OR 97301

RE: SHPO Case No. 10-2624
ODOT Proj 16035 Salt Creek Tunnel & Half-Viaduct BHO-S018(028)

Dear Mr. Norman:

We have reviewed the materials submitted on the project referenced above, and we concur with the determination that the Salt Creek Tunnel is individually eligible for listing in the National Register of Historic Places as identified in the Multiple Property Submission (MPS) "Oregon Highway Tunnels," completed by Robert W. Hadlow, ODOT Region 1. Specifically, the resource is eligible under Criterion A and C for its association with federal, state, and local road improvement programs, and as an example of innovative twentieth-century tunnel construction. Although the project will lower the road surface inside the tunnel and remove the existing associated viaduct, among other work items, the essential character-defining features of the tunnel as identified in the MPS will remain intact, including the rock-faced portal and "mined" construction. It is our determination that the structure will maintain its eligibility for listing after the work is completed.

We also concur with the finding of no adverse effect for the proposed project, with the condition that all historic masonry and concrete to be retained is cleaned and repaired in accordance with the guidance set forth in Preservation Brief 2, "Repointing Mortar Joints in Historic Masonry" and Brief 15, "Preservation of Historic Concrete." Both publications are available from the National Park Service. If this condition cannot be met in its entirety, we ask that ODOT submit an alternate plan for the work for review by our office.

This letter refers to above-ground historic resources only. Comments pursuant to a review for archaeological resources, if applicable, will be sent separately.

Unless there are changes to the project, this concludes the requirement for consultation with our office under Section 106 of the National Historic Preservation Act (per 36 CFR Part 800) for above-ground historic resources. Please feel free to contact me if you have any questions, comments or need additional assistance.

Sincerely,

Ian P. Johnson
Historian
(503) 986-0678
ian.johnson@state.or.us

OREGON INVENTORY OF HISTORIC PROPERTIES

SECTION 106 LEVEL OF EFFECT

Agency/Project: ODOT / Salt Creek Viaduct Replacement, Key #16035, Federal Aid # BHO-S018(028) SHPO # 10-2624	
Street Address: OR58, Mile Point 56	City, County: Oakridge vicinity, Lane County

Preliminary Finding of Effect:

☐ No Historic Properties Affected ☒ No Historic Properties Adversely Affected ☐ Historic Properties Adversely Affected

State Historic Preservation Office Comments:

☑ Concur

☐ Do Not Concur:

☐ No Historic Properties Affected ☑ No Historic Properties Adversely Affected ☐ Historic Properties Adversely Affected

Signed Ian P. Johnson Date 10/5/2011

Comments:

See letter dated 10/5/2011

IAN JOHNSON
503-986-0678
Ian.Johnson@state.or.us

Provide written description of the project, and its potential effects on the subject property per 36 CFR 800. Include maps, drawings, and photographs as necessary to effectively describe and discuss the project. Use continuation sheets as needed.

INTRODUCTION

This statement discusses the effect of the proposed project on the Salt Creek Tunnel and Half-viaducts on OR58 in Lane County (Figure 1). In 1999 and 2002 the Oregon Department of Transportation (ODOT), with concurrence by the State Historic Preservation Office (SHPO), determined this historic district to be potentially eligible for the National Register of Historic Places as the Salt Creek Tunnel Historic District. In December 2010, in coordination with ODOT, the SHPO, when concurring with the determination of eligibility (DOE) for this project, recommended that the tunnel, half-viaducts and powerhouse be considered a single resource instead of a Historic District. In response, this Finding of Effect (FOE) is being written as if the tunnel, half-viaducts, and powerhouse are a single resource. It is the finding of the Federal Highway Administration (FHWA), in concurrence with ODOT that the project has an effect on this eligible resource but it is "**Not Adverse.**" This statement of finding is made pursuant to the requirements of the National Historic Preservation Act of 1966 (36 CFR 800), Executive Order 11593, and the National Environmental Policy Act.

PROJECT DESCRIPTION

This project proposes replacement of the four existing half-viaducts at the Salt Creek Tunnel. In addition to replacing the viaducts, the current project would lower the tunnel floor by 18 inches to increase vehicle clearance, and install variable message signs (VMS) east and west of the Salt Creek Tunnel. This project is completely within ODOT's right of way (ROW). In the most recent inspection report ODOT engineers noted that temporary viaduct shoring put in place in 2006 is reaching the end of its useful life. Additionally, the subject half-viaducts are continuing to experience serious section loss due to the severe wet/freeze/thaw cycle at the resource site creating inefficient load ratings for the traveling public. The replacement half-viaducts will rectify the inadequate load rating and remove structurally deficient half-viaducts from the public right-of-way. The project will replace the four deteriorating concrete half-viaducts with concrete half-viaducts with a gray coated steel pile with a similar pattern to the original in design and placement. The existing deteriorated parapet walls will be intermittently replaced with an arched 42-inch high rock-faced parapet wall with a 3-tube curb mounted rail attached to the road-side. This decorative wall will be placed on the east side of the tunnel between the new half-viaducts. No decorative rail will be placed between the tunnel ends and the adjacent new viaducts to protect existing historic rock walls below the road level (Figure 2 & 3) The modification to the parapet wall is being designed in a sensitive manner to replicate the original design intent of the historic rock work (Figure 4). The tunnel drop will allow for increased clearance of the tunnel by large vehicles. The character of the tunnel will not be adversely affected by this drop because it is being designed with the same curvilinear alignment and sidewalks as the existing tunnel, and in-kind materials will be utilized for concrete patch work that may be necessary. Due to the historic value of the tunnel portals, VMS sign installation will occur at the far ends of the project area so that the driving experience of first viewing and then driving through the tunnel will not be marginalized by electric signage.

OREGON INVENTORY OF HISTORIC PROPERTIES

SECTION 106: LEVEL OF EFFECT

Agency/Project: ODOT / Salt Creek Viaduct Replacement, Key #16035, Federal Aid # BHO-S018(028)	SHPO # 10-2624
Street Address: OR58, Mile Point 56	City, County: Oakridge vicinity, Lane County

IDENTIFICATION AND DESCRIPTION OF HISTORIC PROPERTY

Salt Creek Tunnel (No. 02539) is 905 feet in length on a curved alignment, with a vertical clearance of 12 feet 10 inches at the gutter and a 27 foot wide roadway. It has a concrete lining, modified lights and two 39 inch concrete sidewalks. The tunnel portals are of a National Park Service rustic design, built from plans provided by the U.S. Bureau of Public Roads (BPR), which feature large irregular cut basalt rock face ring stones. There are 27 rustic cut ring stones on each portal. The stones are irregularly shaped approximately 6 feet long and 30 inch wide and 32 inches high. These ring stones were shaped from "Class A" rock. The "Class A" caliber rock was not available on site, so basalt from the Rocky Butte Quarry near Portland was specified. The remaining rock features of the district, discussed below, were constructed of "Class B" rock, which consisted of smaller, irregular pieces of basalt and andesite. This "Class B" caliber rock was mined on site and currently is in severe decline due to the site's wet/freeze/thaw cycle.

The half-viaduct on the west side (No. 07188) of the portal is 225 feet long with a steel rail guardrail that replaced a masonry guardrail in 1995. The three east end half-viaducts, starting nearest the portal, are 250 feet (No. 07185), 125 feet (No. 07186), and 175 feet (No. 07187) long. The existing half-viaducts are cast-in-place reinforced concrete deck girder design with exterior girders resting on cantilevered sections of the cross beams. The foundation consists of square lightly reinforced concrete columns of various lengths bearing on square concrete footings. The guardrails along the outside of the road on the east end half-viaducts are of a parapeted masonry design. At the time of construction these guardrail stones were approximately 2 feet wide by 2 feet tall and 5 feet long placed in two courses high with a concrete mortar. These guardrail stones have deteriorated significantly since their 1940 construction, and temporary barriers have been put in place to serve as bridge rail to keep restricted highway loads from the exterior girders. A small concrete diesel power room is located under the west half-viaduct with concrete stairs and c. 1980 metal tube railing leading to the power room.

The Salt Creek Tunnel is significant as one of the seven bedrock tunnels in Oregon with rustic-style masonry portals built during the New Deal era. The tunnel is significant under Criterion C as it embodies the distinctive characteristics of highway tunnel construction prior to World War II using Bureau of Public Roads design standards. The significant characteristics of the tunnel are its irregular cut basalt masonry portals, a curvilinear alignment, a full concrete lining of the bore, and interior lighting. The resource is a good example of a Works Progress Administration, Bureau of Public Roads, and Oregon Highway Division cooperative effort that combined the dual needs of providing an important transportation route through the Cascade Mountains with a recreational and scenic drive.

AVOIDANCE ALTERNATIVES CONSIDERED

Because the Salt Creek Tunnel and Half-Viaducts has been determined eligible for listing on the National Register of Historic Places, project alternatives were considered to eliminate or minimize the predicted project impacts on this historic resource. Avoidance alternatives considered include:

No-Build Alternative: Under this alternative, the half-viaducts would not be replaced. The severe deterioration of the concrete and continued reliance on temporary shoring, which was expected to last six years, would continue and the safety concern regarding large vehicles too close to the half-viaduct edge would not be addressed. This would not prevent further damage to the structures and the potential for catastrophic failure would increase. This alternative has been determined to be not prudent.

Bypass Existing tunnel and viaducts: Bypassing the existing structures to the north or south would require a major engineering achievement by drilling a new tunnel on a steep slope. This alternative would have adverse effects on businesses and residences due to closures, adverse effects to the environment, and adverse effects to the scenic corridor and U.S. Forest Service Lands. This alternative was also determined to be not prudent.

OREGON INVENTORY OF HISTORIC PROPERTIES

SECTION 106: LEVEL OF EFFECT

Continuation Sheet

Agency/Project: ODOT / Salt Creek Viaduct Replacement, Key #16035, Federal Aid # BHO-S018(028)	SHPO # 10-2624
Street Address: OR58, Mile Point 56	City, County: Oakridge vicinity, Lane County

EVALUATION OF EFFECTS

It has been determined that the proposed project involving replacement of the four half-viaducts at the Salt Creek Tunnel, dropping the tunnel floor, and installation of VMS signs will have an effect on the Salt Creek Tunnel and Viaducts. An application of the Criteria of Effect indicates that implementation of the project as described will result in modification of the existing viaducts and tunnel interior but that such effect is "not adverse" to the resource. This results in a finding of "No Historic Properties Adversely Affected" according to the criteria set forth in 36 CFR 800.5.

APPLICATION OF THE CRITERIA OF ADVERSE EFFECT (36 CFR 800.5)

The Salt Creek Tunnel is significant under Criterion C as one of the seven bedrock tunnels in Oregon with rustic-style masonry portals built during the New Deal era. This project will not alter the masonry portals of the Salt Creek tunnel, therefore not altering characteristics that make this resource eligible. Additionally, the significant characteristic of the district is the tunnel with its irregular cut basalt masonry portals, a curvilinear alignment, a full concrete lining of the bore, and interior lighting. Again, this project will not modify the characteristics that make this resource eligible for the National Register.

The resource is significant under Criterion C as it embodies the distinctive characteristics of highway tunnel construction prior to World War II using Bureau of Public Roads design standards. These distinctive Bureau of Public Roads characteristics will be marginally affected by this project. It is the actual tunnel portals that were designed by the BPR and historically received a higher design priority than the additional features of this district. The half-viaducts are of a standard design, which ODOT will replicate in concrete and grey coated steel pile. The rock parapets were built of a "Class B" stone, and were given less importance than the tunnel portals, in effect the vernacular portion of the resource. Therefore, ODOT and FHWA contend that a more modern stone-faced concrete replacement parapet will not diminish the embodied characteristics of the BPR design standards.

Lastly, the resource is a good example of a Works Progress Administration, Bureau of Public Roads, and Oregon Highway Division cooperative effort that combined the dual needs of providing an important transportation route through the Cascade Mountains with a recreational and scenic drive. This project does not diminish this significance; it perpetuates the Federal/State effort of providing a safe, important route through the Cascades with a recreational and scenic drive.

COORDINATION AND PUBLIC INVOLVEMENT

The public notification component of the project consists of the publishing of the project within the ODOT Statewide Transportation Improvement Program, which is available to the public for review and comment. The project has also been coordinated with the trucking industry and local industries. There is no current CLG in the Oakridge area to notify of the project.

CONCLUSION

It is the determination of the FHWA and ODOT that the proposed project has an effect on the Salt Creek Tunnel and Half-Viaducts, a National Register eligible resource, however application of the Criteria of Effect results in a finding of "No Historic Properties Adversely Affected" by the project.

OREGON INVENTORY OF HISTORIC PROPERTIES

SECTION 106 DOCUMENTATION FORM

Potential & Listed Historic Districts

Agency/Project: ODOT / OR58: Salt Creek Tunnel and Half Viaducts		Key #: 16035	Federal Aid #: BHO-S018(028)
District Name: Salt Creek Tunnel Historic District			☒ Eligible ☐ Listed
Boundary Description: OR 58 (Willamette Highway) alignment, mile point 55.95 through mile point 56.34		City, County: OR 58, Mile points 55.95–56.34, Lane County	
USGS Quad Name: Diamond Peak	Township: T22S	Range: R5E	Section: 33

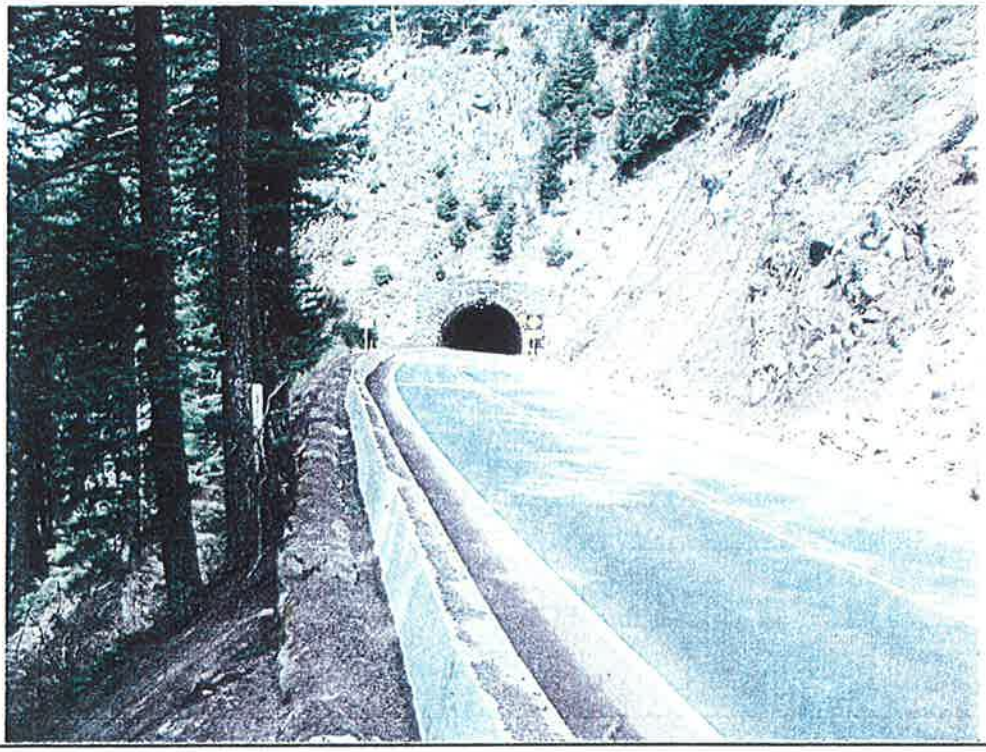
Construction Date Range: 1937 - 1940	Approximate Acreage / Number of Resources: 0.4 linear miles 2 Contributing resources, 2 Non-Contributing resources

Architectural Classifications / Resource Types: Bureau of Public Roads Rustic Style Highway Tunnel and Viaducts

Alterations & Approximate Dates: Stairs and railing to the power room altered 1980, F-type barrier placed in front of east end rock walls, West end rock wall replaced with steel rail 1995, Lining and lighting rehabilitation in 2000, Viaduct shoring 2006.

Features: Highway tunnel, concrete power room, highway viaducts, and masonry rock wall features.

Overall Condition:	Overall Integrity:
☐Excellent ☐Good ☒Fair ☐Poor	☐Excellent ☐Good ☒Fair ☐Poor



Preliminary National Register Findings:

☐National Register listed

☒Potentially Eligible

☐Not Eligible: ☐In current state ☐Irretrievable integrity loss ☐Lacks Distinction ☐Not 50 Years

State Historic Preservation Office Comments:

☒ Concur ☐Do Not Concur: ☐Potentially Eligible ☐Not Eligible

Signed Ian P. Johnson Date 11/29/2010

Comments:

See letter dated 11/

Surveyor/Agency Sarah Jalving / ODOT Date Recorded: November 2010

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

Architects, Builders or Designers (if known):
Bureau of Public Roads
Orino-Birkemeier & Saremal contractors

General description of Properties (including district boundaries & approximate dates of development), Significance Statement, and Sources. (Use continuation sheets if necessary):

DESCRIPTION

The Salt Creek Tunnel and half-viaducts (multiple small span bridges built into a hillside, where only part of the road is supported by the structure) are located in Lane County, Oregon in the Willamette National Forest on Highway 58 (Willamette Highway) at mile point 56, approximately 61 miles southeast of Eugene, Oregon. It is within viewing distance of Salt Creek Falls and near the Willamette National Forest Salt Creek Falls recreational site. (Figure 1) In 2000 the Oregon Department of Transportation (ODOT), with concurrence by the State Historic Preservation Office (SHPO), determined the Salt Creek Tunnel to be potentially eligible for the National Register of Historic Places (NRHP), and again in 2002 as part of the Oregon Highway Tunnel MPS. Neither of these documents discussed what does and does not contribute to this district. This Section 106 documentation form revisits this eligibility finding and finds the Salt Creek Tunnel Historic District eligible for the NRHP with two **contributing** resources and one **non-contributing** resources.

HISTORY

The Salt Creek Tunnel was originally called the Willamette Highway Tunnel. The tunnel, the associated half-viaducts, and bridge rails were an Oregon Forest Highway project, and part of the U.S. Highway 58 project that formed a link between U.S. Highway 97 at Crescent, and U.S. Highway 99 near Eugene. The Willamette Highway was begun in 1923 and dedicated in the fall of 1940. The BPR drew up the tunnel plans and supplied the specifications. The bid was awarded to Sam Orino of Portland on December 27, 1937; Mr. Orino had constructed four tunnels for the Oregon State Highway Department and BPR between 1935 and 1938. R.A. Mack, resident engineer, supervised the engineering work on the job for the BPR. Excavation work on the west tunnel approach began on December 28, 1937. The tunnel was driven upgrade 4.4 percent from the west portal, elevation 3,975 feet, towards the east portal, elevation 4,014 feet. It was bored upon a curve a 4 degrees 36 minutes (typical tunnels were located on tangents). The tunnel was driven through basalt of varying physical structure and timber was required for support in fractured sections. The entire bore was concrete lined. The contractor employed an average crew of 30 men during the 24-hour day. The crew consisted of 10 drillers, 7 timbermen, 8 men on excavation, 2 carpenters, 2 mechanics, and one blacksmith. The method of construction was to drill, blast, and remove tunnel spoil by gasoline powered shovels and trucks. The tunnel was ventilated during the construction with large fans for air supply and to prevent a high concentration of carbon monoxide that might harm the workers. As a matter of interest, because of concerns expressed by state and federal agencies about ventilation and fire protection during the construction of the Salt Creek (Willamette) tunnel, the State Industrial Accident Commission wrote a new code which incorporated workman safeguards developed for this project.

Bennett & Taylor Construction company was awarded the contract for the grading and the half-viaducts. H.D. Farmer, Sr. Highway Engineer served as inspector with W.D. Keller, Chief Engineer, and R.I. Thomas, Associate Highway Engineer serving as the resident engineers. The half-viaducts were started in September of 1939 followed by the construction of the masonry bridge rail, which began May 1940. Personnel of the U.S. BPR Portland office designed the rustic rock portals. A number of sketches and models of both portals were prepared and reviewed by landscape architects from the National Park Service before the final selection was made. Local rock of the caliber needed for the ring stones and buttress masonry was unavailable locally so rock from the Rocky Butte quarry near Portland was specified. The original lighting system was based on the scheme used in the Tooth Rock Tunnel on the Columbia River Highway (the first rural highway tunnel in the West equipped with portal day light illumination). However, sodium vapor lamps were used at the Salt Creek Tunnel instead of a combination of incandescent and sodium vapor lamps and the fixtures were set flush into the concrete rather than hanging from the ceiling. Because of the isolation of the area, a diesel plant was incorporated into the project to power the lights and was housed in the power room along with tanks under the west half-viaduct (Bridge No. 07188).

Continued Page 3...

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

STATEMENT OF SIGNIFICANCE

The Salt Creek Tunnel Historic District is eligible for the National Register and is significant as one of the seven bedrock tunnels in Oregon with rustic-style masonry portals and related features built during the New Deal era. The district is significant under Criterion C as it embodies the distinctive characteristics of highway tunnel and viaduct construction prior to World War II using Bureau of Public Roads design standards. The significant characteristics of the tunnel are its irregular cut basalt masonry portals, a curvilinear alignment, and a full concrete lining of the bore. The historic district is also significant under Criterion A as a good example of a Works Progress Administration, Bureau of Public Roads, and Oregon Highway Division cooperative effort that combined the dual needs of providing an important transportation route through the Cascade Mountains with a recreational and scenic drive.

Tunnel

The Salt Creek Tunnel (No. 02539) is 905 feet in length on a curved alignment, with a vertical clearance of 12 feet 10 inches at the gutter and a 27 foot wide roadway. It has a concrete lining, modified lights and two 39 inch concrete sidewalks. (Figure 2) The tunnel portals are of a National Park Service rustic design, built from plans provided by the U.S. Bureau of Public Roads (BPR), which feature large irregular cut basalt rock face ring stones. There are 27 rustic cut ring stones on each portal. The stones are irregularly shaped approximately 6 feet long and 30 inch wide and 32 inches high. According to BPR plan the ring stones were to be shaped from "Class A" rock. The required "Class A" caliber rock was not available within the vicinity so basalt from the Rocky Butte Quarry near Portland was specified. The remaining rock features of the district, including the rock portal faces around the arch rings, the bridge rails, and the retaining walls below the tunnel portals (Figure 3), were constructed of "Class B" rock, which consisted of smaller, irregular pieces of basalt and andesite that were found on site. The Salt Creek Tunnel, with its associated rock portal and rock retaining walls, are a **contributing** resource of the Salt Creek Tunnel Historic District due to it's integrity of Location, Design, Setting, Materials, Workmanship, Feeling and Association.

Power room

A small, rectangular, poured concrete, diesel plant power room was constructed in 1939 under the west half-viaduct (Bridge No. 07188) to house the generator needed to power the lights for the tunnel. (Figure 4) It is approximately 25 feet by 20 feet in size. Concrete stairs and metal tube railing are located near the west portal end of the viaduct to access the power room. The power plant room is no longer used as a diesel plant but is used to house the electrical equipment for the current lighting system. The rough-cut masonry stairs and railing leading to the powerhouse were changed to concrete with metal tube railing in the 1980s for safety. (Figure 5) Although the Salt Creek Power room has been modified for modern equipment and safety there is sufficient integrity of Location, Design, Setting, and Association to be considered a **contributing** resource of the Salt Creek Tunnel Historic District.

Half-viaducts with Rock Bridge Rails

The half-viaduct on the west side (Bridge No. 07188) is 225 feet long with a 1995 steel rail and timber post guardrail along the half-viaduct edge. There is a "Type F" bridge rail system, which is a direct lineal descendent of the New Jersey Median Barricade, or "K Type" barrier, that is between the guardrail and the east bound travel lane. (Figure 6) The power room is accessed from the west half-viaduct by concrete stairs and a 1980 metal tube railing. The three east side half-viaducts, starting nearest the portal, Bridge No. 07185 at 250 feet in length, Bridge No. 07186 at 125 feet in length and Bridge No. 07187 at 175 feet in length, are 14 feet wide structures. The existing half-viaducts are a standard cast in place reinforced concrete deck girder design with exterior girders resting on cantilevered sections of the cross beams. The foundation consists of square lightly reinforced concrete columns of various lengths bearing on square concrete footings. The existing half-viaducts are of a standard design and were built by no special architectural or engineering feat. (Figure 7) Due to the wet/freeze/thaw weather cycle at the Salt Creek Tunnel Historic District the viaducts are experiencing severe deterioration creating inefficient load ratings for the traveling public. (Figure 8) In 2006 the east side half-viaducts received temporary wood shoring to prolong the life of the east side system. This temporary shoring is now coming to the end of its useful life. (Figure 9) As originally designed in 1939, the bridge rails along the outside of the road on the half-viaducts were of a parapeted unreinforced masonry design. (Figure 10) At the time of construction these guardrail stones were approximately 1-ft-8-inches wide by 2 feet tall and 5 feet long placed in two courses high with a Portland cement concrete mortar. Before original paving, 8 inches of ballast was placed on the half-viaducts against the rail reducing the walls effective height to 3-ft-4-inches. Over the years, to maintain safety, profile changes added more material to the top of the original ballast varying from 16 inches to 27 inches.

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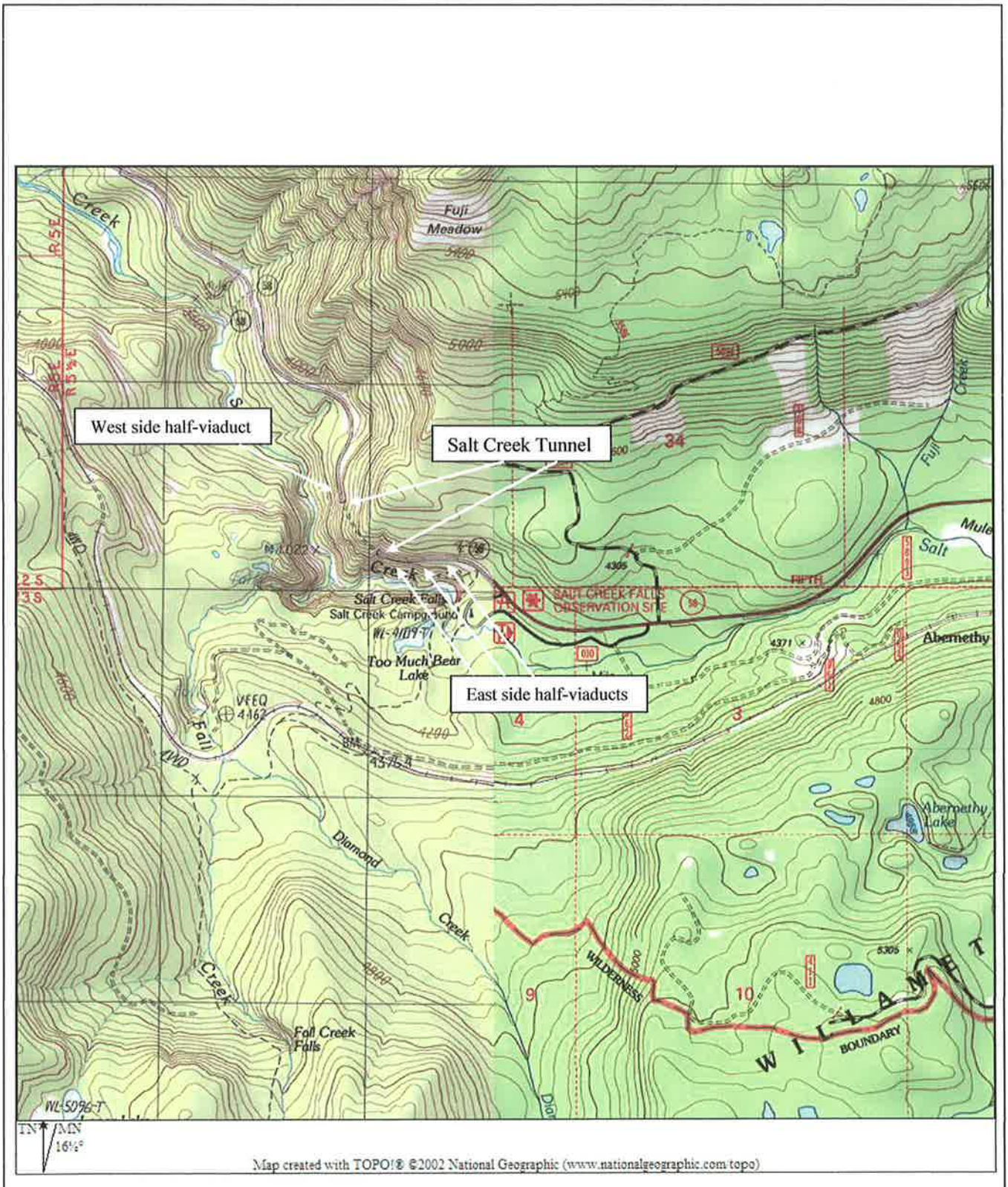

Figure 1: Location of Salt Creek Tunnel and Viaducts

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95--56.34, Lane County

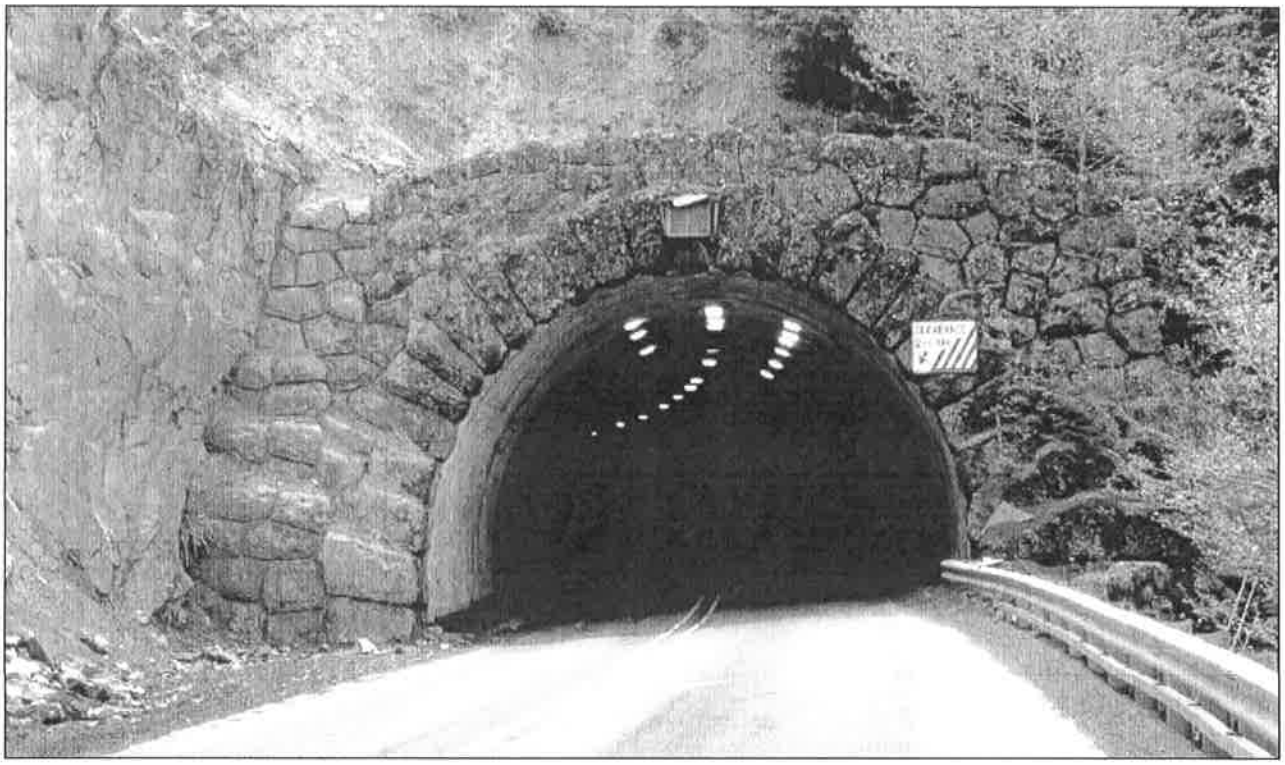

Figure 2: East side Salt Creek Tunnel

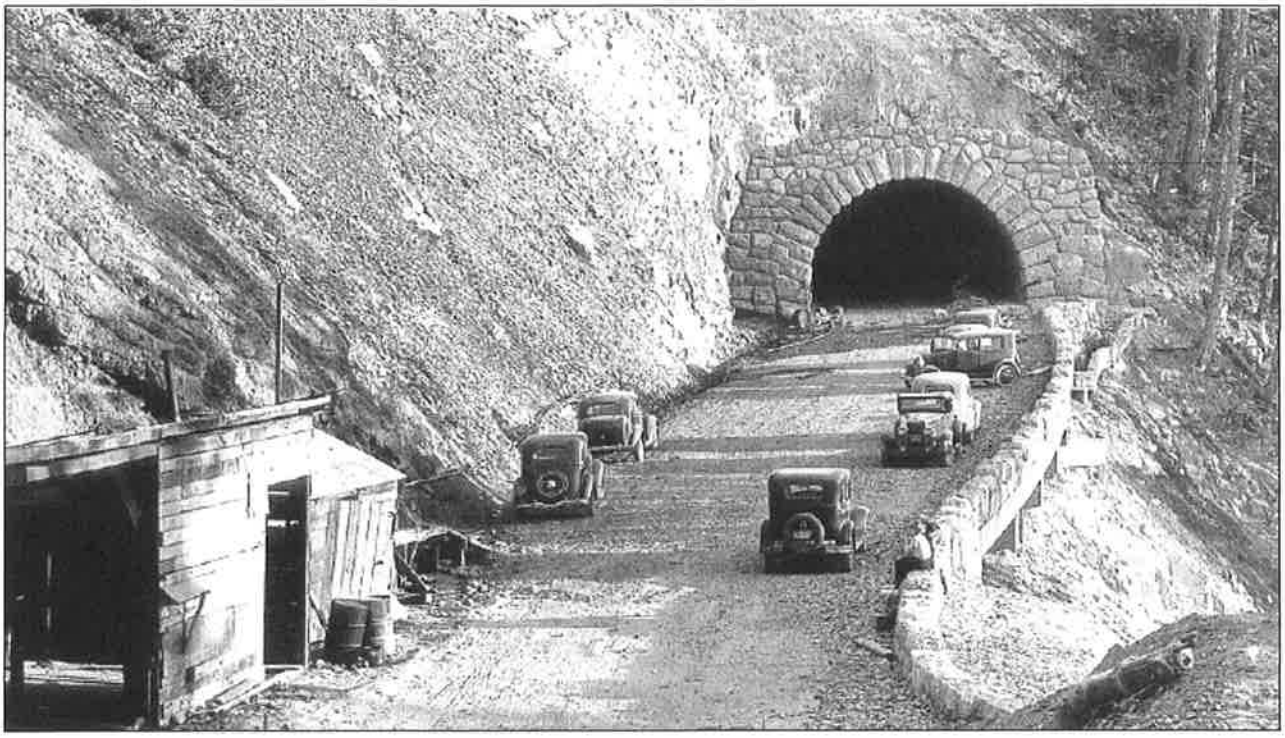

Figure 2b: East side Salt Creek Tunnel during construction 1938

Consequently, the horizontal relationship between the road surface and the top of the bridge rail has been modified drastically. (Figure 11) In approximately 1980, the original bridge railing on the east side was for all intents and purposes replaced with a "Type F" bridge railing system to keep restricted highway loads from the exterior girders. Although the original rail is still extant behind the F-rail, it is no longer visible to the traveling public. The rail has deteriorated significantly since its 1940 construction, and is no longer utilized as a bridge rail. (Figure 12) Additionally, the west side bridge railing has been removed entirely. The existing half-viaducts with rock parapet bridge rail are a **non-contributing** element of the Salt Creek Tunnel Historic District. The half-viaducts have been modified by the critical addition of shoring, are of a standard design with no exemplary engineering, and due to severe deterioration the bridge rails have lost integrity of Setting, Design, Materials, Workmanship, Feeling and Association and are considered a non-contributing resource to the Salt Creek Tunnel Historic District.

HISTORIC CONTEXT

Salt Creek Tunnel is one of fifteen mined hardrock highway tunnels located in Oregon (12 built between 1914 and 1941, and 3 built between 1958 and 1970). The State of Oregon owns eleven tunnels, the remaining four are owned by the City of Portland. There are nine tunnels with rustic stone portals, seven of which were designed and built using Bureau of Public Roads (BPR) plans using Work Progress Administration (WPA) funds. The other two are associated with the Columbia River Highway and predate the New Deal tunnels. The seven Oregon tunnels featuring National Park Service rustic-style masonry portals built between 1937-1941 include:

1. Toothrock Tunnel, I-84, 1937
2. Rocky Butte Tunnel, Rocky Butte Drive, Portland, 1939
3. **Salt Creek Tunnel, OR 58, 1939**
4. Sunset Tunnel, US 26, 1940
5. West Burnside Street Tunnel, Portland, 1940
6. NW Cornell Road Tunnel 1, Portland, 1941
7. NW Cornell Road Tunnel 2, Portland, 1941

The portal rock for the Toothrock, Rocky Butte, Salt Creek and Sunset tunnel portals came from Rocky Butte quarry near Portland. According to David Lewis and Kathy Schutt, authors of the "Rocky Butte Scenic Drive National Register Nomination," many of the masons who completed the rock work at Rocky Butte, including the tunnel portals, were some of the same Italian masons who worked on the Historic Columbia River Highway in the 1910s and 1920s, as well as the portals on the two NW Cornell Road tunnels, the West Burnside tunnel, and on Timberline Lodge in the 1930s and 1940s. Because many of the same key tunnel experts were employed on all of the Oregon WPA tunnels it is considered likely that the same Italian masons constructed Salt Creek Tunnel portals.

The seven tunnels built between 1937 and 1941 were constructed with WPA dollars and were designed using standard plans from the U.S. BPR. Comparing photos of the portals for all seven structures shows a striking resemblance – yet none are identical. In the late 1930s, the Federal government was overseeing construction of over two-dozen highway tunnels in the west. Only a few of them were is settings that lent themselves to rustic-style portal designs. These include the two Big Oak Flat Road tunnels in Yosemite National Park, the East Side Highway in Mount Rainier National Park, the Zion-Mount Carmel Tunnel in Zion National Park and the Tieton Reservoir Tunnel in Washington state. With seven rustic faced tunnels, it appears that Oregon has one of the best collections of 1930/1940s highway tunnels with the National Park Service rustic-style portal masonry in the country.

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

SOURCES

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District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

Figure 3: East side rock portal face and retaining wall

Figure 4: : West side Power Room (original windows, but replacement "door")

District Name: Salt Creek Tunnel Historic District
City, County: OR 58, Mile points 55.95–56.34, Lane County

Figure 5: Modified tube pedestrian rail at west side viaduct

Figure 6: West side viaduct with "W" bridge rail (added in 1995)

District Name: Salt Creek Tunnel Historic District
City, County: OR 58, Mile points 55.95–56.34, Lane County

Figure 7: Severe deterioration (due to constant freeze/thaw) of half-viaduct

Figure 8: Spalling and section loss of half-viaduct concrete

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

Figure 9: Half-viaduct shoring from 2006 to prevent potential failure

Figure 10: Crumbling masonry rock bridge rail parapet

District Name: Salt Creek Tunnel Historic District

City, County: OR 58, Mile points 55.95–56.34, Lane County

Figure 11: Masonry bridge rail, through the build up of volcanic rock during the snowy season, is nearly buried, aside from being masked to traveling public by requisite bridge rail for safety

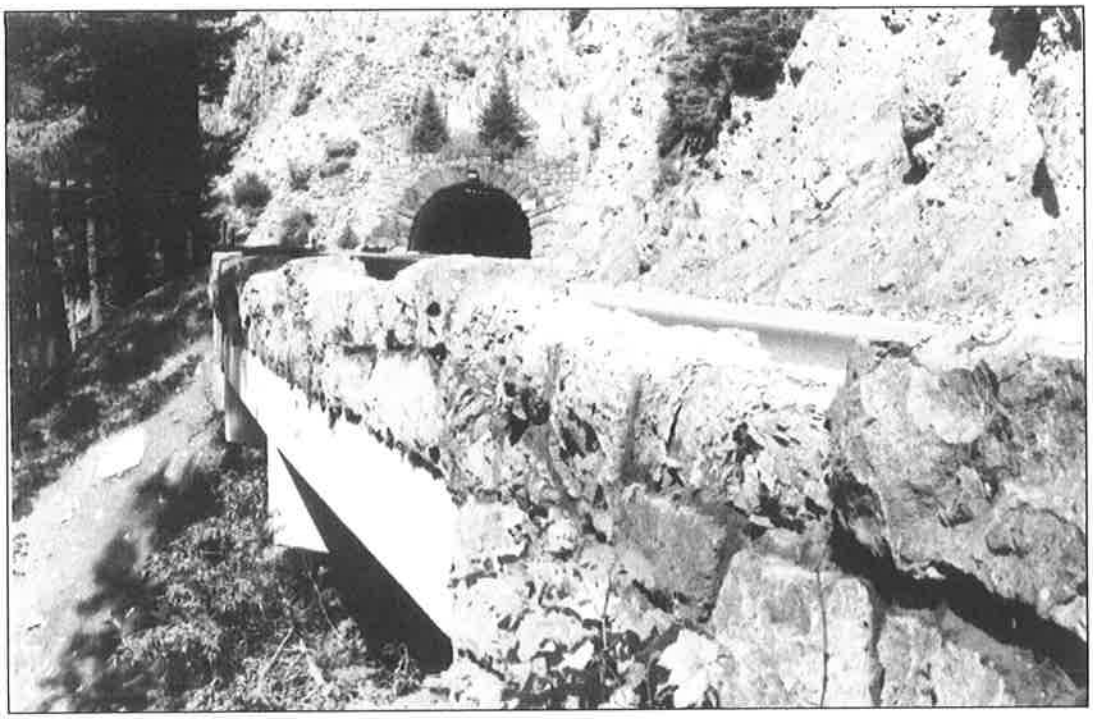

Figure 12: Masonry rock bridge rail parapet in 1981, which was already starting to "melt" and deteriorate.