

NISQUALLY ROAD
(Government Road)
Mount Rainier National Park
Between Longmire and Paradise
Longmire VIC.
Pierce County
Washington

HAER No. WA-119

HAER
WASH
27-LONG.V,
16-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

NISQUALLY ROAD
(Government Road)
Mount Rainier National Park
HAER No. WA-119

HAER
WASH
27- LONG V
16-

I. INTRODUCTION

Location: Between Nisqually Entrance and Paradise Valley, Mount Rainier National Park, Lewis and Pierce counties, Washington.
Quadrangles: Randle, Wash
Mt. Rainier West, Wash.
Mt. Rainier East, Wash.
UTMs: West End: Nisqually Entrance 10/582785/5176780
East End: Paradise Valley 10/596700/5181900

Date of Construction: 1904-1915

Designer and Engineer: Eugene V. Ricksecker, U.S. Army Corps of Engineers

Owner: Mount Rainier National Park, National Park Service

Use: Park scenic highway

Significance: The first road constructed in Mount Rainier National Park, the Nisqually Road was built under the supervision of the U.S. Army Corps of Engineers and is significant for its especially careful relation to the landscape. The road was designed to rise on a gentle grade from the park entrance to Paradise Valley, the principal park development. It winds through lowland forests to Longmire, then begins to climb the south flank of the mountain, passing rushing waterfalls and striking vistas before reaching the lovely subalpine meadows of Paradise. The road was the first in the country to reach a glacier, a feat considered remarkable in its day. Reconstructed in the 1920s, the road remains the most important thoroughfare at Mount Rainier.

Project Information: Documentation of the Nisqually Road is part of the Mount Rainier National Park Roads and Bridges Recording Project, conducted in summer 1992 by the Historic American Engineering Record.

Richard H. Quin, Historian, 1992

II. HISTORY

This is one in a series of reports prepared for the Mount Rainier National Park Roads and Bridges Recording Project. HAER No. WA-35, MOUNT RAINIER NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park roads.

Nisqually Road

The first and still the most important road in Mount Rainier National Park was the Nisqually Road between the park's western boundary and Paradise Valley. The road had its origins as an 1880s pack trail, providing access to the early settlement of Longmire Springs on the southwest flank of the mountain. Following the creation of the national park in 1899, an improved road was necessary, and in 1903 the Department of the Interior asked the U.S. Army Corps of Engineers to design and construct a good road. The Corps considered several routes but decided to follow the old trail (part of which had been upgraded in places to a rough wagon road) and began construction the following year. The so-called "Government Road" was completed to Paradise in 1915, and for more than a decade it was the only road in the park. It was reconstructed by the National Park Service and the Bureau of Public Roads in the 1920s, and has been rehabilitated and improved several times since. Although good roads now provide access to other parts of the park, the Nisqually Road remains the most heavily-traveled corridor, largely due to the popularity of the high subalpine meadows of Paradise Valley. It is also the only park road maintained for winter use.

Early pioneer James Longmire,* on a return to his homestead at Bear Prairie from an 1883 Mount Rainier summit climb with Philomon Beecher Van Trump and George Bayley, happened upon a group of chemical springs southwest of the mountain near the Nisqually River. Longmire returned a few months later and filed a mineral claim on the springs. Hoping to capitalize on what he promoted as the springs' medicinal effects, he opened a small log hotel there for those who wished to partake of the waters. In 1884, he built a rough trail to the springs from Succotash Valley (later Ashford).¹ Over the next several decades, the Longmires catered to many of the park's early visitors.

In 1888, Longmire's daughter-in-law, Martha, climbed as far as Paradise

* Longmire (1820-1897), a native of Indiana, in 1853 was a leader of the first pioneer party to cross the Cascades (at Naches Pass) in a variation from the Columbia River route near the end of the Oregon Trail. The wagon train was the first to pass through the Yakima and Wenas valleys. With his wife, Virinda, and four children, Longmire settled first at Yelm Prairie near present Tacoma. By 1854, he began to make trips into the Mount Rainier country, and in 1861 he and William Packwood blazed a trail to Bear Prairie on Horse Creek just south of the present park boundary. [Arthur David Martinson, "The Influence of the Longmire Family Upon the Early History of Mount Rainier National Park" (Masters thesis, University of Washington, 1961), 6-7, 11.]

Valley, which she rewarded with its name on account of the profusion of alpine wildflowers.² The Valley was destined to be the main attraction for future tourists.

James Longmire replaced his original hotel in 1890 and began construction of a wagon road in from Yelm Prairie. He and his family were assisted in the endeavor by several Indians. The road was completed in 1891 and the first more tourists arrived. These early visitors were attracted by the medicinal springs, but carried back reports of the stunning mountain scenery. Longmire collected tolls for the use of the road in early years. With his son, Elcaine, he also began operating pack trains to convey visitors from Yelm.³

Unfortunately, little has been recorded about Longmire's trail-building work. The distances from Yelm Prairie to Bear Prairie and Longmire Springs are considerable, and the construction of the trail was a major feat. The work would have all been done with hand tools, and to build a trail through the dense old-growth woodlands would have required very heavy labor. Descendants later stated that, in order to facilitate the crossing of boggy lands, Longmire split logs in half and laid them with the flat side up, a technique later used in places by park trail crews. Even maintaining the trail would have required considerable work, as winter storms would blow trees down across trails in such terrain, and the fast-growing brush would require constant removal.⁴

Always seeking means to increase business for his establishment, James Longmire engaged Harry Carter to construct a crude road from Longmire Springs to Paradise Valley in 1895. This rough foot and pack trail would enable visitors to reach the already fabled flower fields of Paradise Park. Like the "road" to Longmire Springs, a toll was charged for use of the new Paradise trail; the charge was 50¢. Two years later, James Skinner opened a crude tent hotel at Alta Vista on the edge of Paradise Park. Reese was not pleased with the location, and relocated his camp to Theosophy Ridge to the immediate south. The tent hotel was known as the "Camp of the Clouds," and catered to early tourists.⁵ This was the first development in Paradise Valley.

On 2 March 1899, President William McKinley signed into law the act creating Mount Rainier National Park. While the mountain and a roughly-eighteen mile square surrounding tract were given park status and protection, the act did not provide for any immediate improvements, including roads. Administration of the park was for a time vested with the Superintendent of the adjoining Rainier National Forest Reserve (from which the park had been taken).

In 1903, the Secretary of the Interior submitted a request for an appropriation of \$3,000 for the management of the park, including construction of roads and trails. Forest Superintendent Grenville F. Allen reported that there was but one road into the park, the six-mile track to Longmire Springs. About three hundred visitors a year were making trips to the park.⁶ However, access remained very difficult, and Congress was convinced to appropriate the funds for improvements. As the Department of the Interior did not have any

personnel to design or construct a park road system, it turned to the Department of War for assistance. This followed the example of Yellowstone National Park, where the U.S. Army Corps of Engineers had recently overseen construction of the park loop road.

Largely due to the efforts of Tacoma congressman Francis Cushman, the Sundry Civil Appropriations Act of 3 March 1903 authorized the Secretary of War "to cause a survey to be made of the most practical route for a wagon road into said park, and toward the construction of said road after the survey therein provided for shall have been made, ten thousand dollars." However, the appropriation was not made available until the new fiscal year. Major John Millis of the U.S. Army Corps of Engineers* was placed in charge of the Mount Rainier National Park road project.⁷

As the enabling act did not specify where the road or roads were to be located, notices were placed in area newspapers, and several individuals familiar with the area were invited to offer their suggestions. As a result, it was decided to run the principal road from Tacoma, the nearest large city and terminus of the Northern Pacific Railway, via Longmire Springs, the Nisqually Glacier, and Narada Falls to Paradise Valley. The existing Longmire trail, though of very poor quality, already extended along much of the route.⁸

Citizens of the town of Enumclaw, in Pierce County outside the north boundary of the park, submitted a petition to Major Millis in May 1903, urging him to adopt a route for the new road starting at their town. They suggested that such a route would avoid heavy grades and would be more accessible than any southern route. The road would also connect over the Cascade crest with Yakima, whose citizens supporting petition for the same route. This route was also supported by the King County Board of Commissioners, as it again would provide the most direct access from the Seattle area.⁹

The Tacoma Chamber of Commerce urged improvement of the existing rough route into the park from Ashford, which, of course, would better serve their city's interests. They called attention to the scenic values of the Nisqually basin and the glaciers at Paradise Valley. They also referenced the planned extension of the Tacoma Eastern Railway (a subsidiary of the Chicago, Milwaukee, St. Paul and Pacific Railroad Company) to a point near the park's southwest boundary on the existing route. The chamber also suggested that their route could be completed in less time and at less expense than any other.¹⁰ After due consideration, the Longmire Springs-Paradise Valley route was adopted.

* Millis († 1952) later supervised the construction of the fortifications at Corrigidor Island in the Philippines. He also participated in the surveys for the Lake Washington Ship Canal at Seattle, built the south jetty at the entrance to Grays Harbor, and surveyed a 162-mile wagon road from Circle to Fairbanks in Alaska. ("Corrigidor Fort Builder Taken by Death," *Seattle Times*, 28 March 1952.)

Surveys Begin

The survey for the new road got underway in midsummer, under the general supervision of Eugene V. Ricksecker (1859-1911), Assistant Engineer for the Corps of Engineers.* Ricksecker, a civilian, was stationed at Tacoma where he was involved with harbor and related work; however, he made repeated site visits to the park to oversee the road project. The survey crew, headed by Inspector Oscar A. Piper, was organized in Tacoma and started for the park on 9 July, established a camp at Longmire Springs on the 11th, and began field work two days later. By the end of the month, the survey was approaching the Nisqually Glacier at the head of Nisqually River. A month later, the line had reached Tatoosh Falls, and by the end of September was complete as far as the Nisqually River. The first segment was put out for bids on 8 September; however, all bids were rejected.¹¹

In October 1903, Major Millis, Ricksecker's senior officer, wrote Captain Hiram M. Chittenden, who had overseen construction of the loop road in Yellowstone National Park for the Corps of Engineers, asking for copies of road sections and general bridge plans used at Yellowstone. Millis indicated that he felt steel or wood truss bridges would have to be employed at Mount Rainier, and would appreciate any general advice. At the end of the month, Millis directed Ricksecker to begin preparing specifications for clearing and grubbing work for the new road.¹²

At Longmire Springs, the survey crew had staked out a preliminary location before being informed that their chosen route crossed over the grave of E. H. Hudson, who had been killed in a hunting accident in 1888. At Ricksecker's instructions, the survey stakes were moved a few feet south in 1906 so as to avoid the grave.¹³ The grave can still be seen today.

Ricksecker's survey continued through the fall, and reached the "Camp of the Clouds" near Paradise Valley by late October 1903. The survey work was suspended on 11 November due to heavy snowfall. To this point, the survey had largely followed the route of the existing "unsatisfactory" pack trail built

* Ricksecker was born at Canal Dover, Tuscarawas County, Ohio on 9 October 1859, the son of Israel and Mary Jane (Harrison) Ricksecker. He graduated with a degree in engineering from Lehigh University, and was appointed to the U.S. Geological Survey by President Chester Arthur. In 1889, he was transferred to the War Department and assigned to work in the Pacific Northwest. He was connected with a number of other important public projects, including improvements at Crater Lake National Park, the Lake Washington Ship Canal, the Oregon Coast Highway, and Forts Flagler, Worden and Casey. He also supervised the dredging of the Tacoma harbor and the widening and deepening of the Puyallup River. These projects resulted in the creation of the Tideflats area at Tacoma, now a major industrial and manufacturing center. Ricksecker died 2 June 1911. (Eugene Ricksecker note, MORA Archives, File H14, Road Reports, 1904-1906; Caroline Kellogg, "Eugene Ricksecker Helped Open Up Mountain," *The (Tacoma, WA) News Tribune*, 7 May 1978.)

by the Longmires.¹⁴ In his May 1904 report to his superior, Millis, Ricksecker described the existing trail:

The trail from the Springs [Longmire] to the Camp of the Clouds (a tent hotel) is rough, rocky and very steep, and ordinarily requires four hours to make the trip. It can be travelled on horse back in its present condition but walking is preferable over the greater portion of it.¹⁵

A fair wagon road already existed between Longmire Springs and the western park boundary (at the present Nisqually entrance), so attention was first devoted to the section between Longmire Springs and the Camp of the Clouds. As the two principal points of interest between these two points were the Nisqually Glacier and Narada Falls, the road was routed to approach both in order to showcase these natural wonders.¹⁶

As the road was not to be designed for commercial purposes, the usual intent to choose the shortest distance between two points, with due regard for gradient, did not apply. Instead, the route was planned as a pleasure road for the enjoyment of park visitors and to render easily accessible the Paradise area, the usual beginning point for summit attempts. Accordingly, the road was planned to take advantage of some of the glorious views and to provide access to the aforementioned glacier and falls. A maximum ruling grade of 4 percent, considered the steepest over which horses could trot and the steepest which could be negotiated by cyclists, was determined desirable and exceeded only in very short stretches.¹⁷

In February 1904, Millis reported to Brigadier General A. Mackenzie, Chief of the Corps of Engineers in Washington, D.C., that the estimated cost for the construction of the new road was \$183,000. The new Sundry Civil Appropriations Act of 28 April authorized another \$30,000, of which \$6,000 was to be used to continue the survey. The remaining money was allocated to begin construction. A new survey party was also to begin a location survey from the east side of the park, working back towards Paradise. Junior Engineer John Zug was placed in charge of this crew in July.¹⁸ Hiram Chittenden, having been promoted to Major following the completion of his work in Yellowstone National Park, was placed in overall charge of the road project, although his involvement with the work was nominal.

The completion of the Tacoma Eastern Railway to Elbe in May 1904 made access to the park area much easier. Longmire Springs was now less than eight hours from Tacoma. Over the summer, the railway was extended another 8 miles to serve coal mines at Ashford, further reducing the time required to reach the mountain. With the completion of the railway, daily stage service was inaugurated between Ashford and Longmire Springs.¹⁹

The survey line reached the Nisqually Glacier in 1904. It followed a series of several looping curves with a grade not exceeding 4.3 percent. The route took in Christine Falls, a small cascade on Van Trump Creek (earlier called

Cynthia Creek). This route offered several fine views of Mount Rainier from the north bank of the Nisqually River. Here the road would make a long loop towards Gap Point, coming back to within 1300' of the approach road near Christine Falls, but 4 miles distant by road. After passing through dense forest, the Paradise River was crossed below the Nisqually Glacier. At this time, the glacier's end was located some 1,000' above the crossing. (It would later advance down beyond the road before retreating back even further.)²⁰

Rounding the headland, the survey party named "Gap Point," a first view of the Paradise River was reached, and across the valley, the rugged peaks of the Tatoosh Range. Tatoosh and Carter Falls cascaded below the road in the trees, but Ricksecker suggested that a little cutting would expose them to view. (They remain hidden in the woods.) For the next 2 miles the route followed a generally straight course with a maximum grade no greater than one percent. At the end of the stretch, another loop was made to overcome a rise of 280', and at the end of the loop Narada Falls came in full view. The surveyed line crossed a rocky point above the head of the falls. A high-span bridge over the river below the falls was considered but rejected in favor of another loop over the falls. Above Narada Falls, the route entered more open park-like terrain, climbing a 4 percent gradient in a series of short loops to reach the upper Paradise Valley below Sluiskin Falls, then doubled back over open country to reach the Camp of the Clouds.²¹

Ricksecker's specifications for the road construction called for a cleared width of 60'. This wide corridor would allow for an early opening of the road by giving the sun access to the roadway, and would help the route dry quickly after heavy rains. To avoid an overly barren appearance, a few of the finest trees would be left. The shade they provided would help conserve some moisture (reducing the inevitable dust) and would provide some relief for the tourists. A 16' roadway was specified, extending to 18' 6" on side hill sections and curves. The natural terrain would be followed wherever possible, utilizing series of graceful curves; however, cuts would be used where necessary to avoid the need for extremely short curves. A maximum radius for curves of 75' was planned for most sections, although in a few of the loops a maximum of only 50' was required. Many of the curves were planned to present the user with unexpected views of the stunning mountain scenery. Earth cuts were to have a 1:1 slope, increasing to vertical in hard rock areas; embankments were to have a 1:1.5 side slope. The cuts would exceed the fill area somewhat, with the extra material being used to extend the width of the road. Where necessary to carry the road along steep hillsides, dry-laid uncoursed stone rubble retaining walls would be constructed, topped with a solid parapet wall to prevent accidents. The road would be surfaced with "volcanic ejectamenta," a coarse material readily available in large quantities along the route. This rock, Ricksecker suggested, would pack easily and hold its shape without becoming muddy or creating dust.²²

Ricksecker determined that seven principal bridges would be required:

1. Van Trump Creek	180'	Single span
2. Nisqually River	100'	Center span of 50'
3. Dry Gulch	125'	Least span 30'
4. Paradise River I	240'	Center span 80'
5. Paradise River II	60'	
6. Paradise River III	60'	
7. Sluiskin Fork	50'	

In addition, some twelve smaller bridges, with spans varying from 20'-60' in length, would be required. All but the Van Trump Creek and first Paradise Bridge (at Narada Falls) could be built in wood; he recommended that these two be built in steel or concrete, or preferably in combination.²³

Once the survey had been completed to Paradise, the crews began running a line west from Longmire Springs to the west end of the park. This route generally followed the existing road. While better than the rough pack trail to Paradise, this section too had severe problems. Part of the roadway was at times flooded by the Nisqually River and its lower tributaries, the "Rainier" and "Little Rainier" forks (now known as Kautz and Tahoma creeks.) Most of the route passed through dense forest, so the road was rarely able to dry out, and consequently, mud was a constant aggravation. However, as the road passed through much lower country, easier grades would be obtainable.²⁴ As much of the road from the park entrance to Paradise passed through dense virgin forest, relatively few open views of the mountain would be available until the higher country was reached. This was no real shortcoming, however, as the visitor would be able to find interest in the ever-changing forest.

Estimates for the costs of construction were worked up by the surveyors and forwarded by James H. Murphy, Chief Clerk for the Corps of Engineers' Seattle office, to General Mackenzie in February 1904. Murphy estimated the costs for the western section, between the Nisqually entrance and Longmire Springs, at \$41,925; for the section between Longmire and the Camp of the Clouds, another \$124,550.50. The bridges were estimated at \$8,000. With an allocation for engineering, superintendence and contingencies, the total cost of the project was reckoned at \$183,000.50.²⁵

Construction Begins

Construction began in August, with crews making repairs to existing bridges which would be retained for temporary use. Bids for the road work proper were opened, and the successful bidder, A. D. Miller of Seattle, began work on 24 August with thirty men.²⁶ The construction work continued until 17 November, when it was halted by winter weather. The work was not resumed in the spring on account of financial problems encountered by the contractor. The road was still not complete when contract time expired at the end of June, but an extension was granted by the Chief of Engineers.²⁷

John Zug's party continued its survey of a road route from the east side of the park through most of 1904. Lieutenant Zug was reprimanded in October for cutting green trees around his camp location. Forest Supervisor Allen, who still served as Acting Superintendent of the national park, complained to the Corps of Engineers, which in turn called the matter to Zug's attention and provided him with a list of park regulations.²⁸

Miner Frank Hendricks requested permission to construct an access road to connect his mining claim and cabin with the government road. He was denied the request, and the Corps of Engineers adopted a policy forbidding the construction of connecting roads without permission from its office.²⁹ [This policy has been maintained, and no roads connecting private holdings intersect with the park road system.]

Zug's party completed its work in late 1904. The crew surveyed a road route from the head of the American River along the Cascade crest and over into the Ohanapecosh Valley, then up Olallie Creek over the Cowlitz Divide into Cowlitz Park. The cost of a road along this route was estimated at \$104,490. If built, the road was to be later connected with the government road at Paradise Valley.³⁰ [The road was never authorized; however, the present Mather Memorial Parkway follows the American River up to the park boundary on the Cascade crest at Chinook Pass.]

Two important conservation organizations, the Sierra Club and the Portland-based Mazamas, supported the construction of the road and urged its speedy completion in order to provide better access to the park. However, at a joint meeting of the two organizations held in July 1905, the groups urged more attention to the construction of a good trail network, which they suggested could be developed "at a tithe of the cost of the Government Road."³¹

By this point, the wagon road from the west boundary to Longmire Springs was in very poor condition, and a year later the acting park superintendent reported it was "practically impassible by wagon." He reported that the Tacoma Eastern Railway Company made some temporary repairs in order to transport materials for the construction of its new Tacoma Eastern Hotel (later renamed the National Park Inn) at Longmire. As the new government road under construction roughly followed the same route, he made no recommendations for extensive repairs or improvements to the existing road. Eugene Ricksecker had likewise issued instructions that only necessary work be done to insure safe passage over the road. This work included rounding off several sharp curves, removing a number of trees and stumps which had constricted the road so severely that vehicles were forced to scrape against them, replacing muck with volcanic rock and ash fill, channelling the river away from the roadbed, and removing trees which had fallen across the road. A Howe truss bridge over Tahoma Creek failed under a load of freight and was repaired by placing a number of rock-filled cribs under the bottom chords. Several other bridges were also repaired. In the end, the repair work was quite considerable, and diverted labor and attention away from the construction of the new road.³²

Major Hiram Chittenden, now in overall supervision of the road program, made his first visit to Mount Rainier at this point, and was aghast at the condition of the western entrance road. He called it

without exception the worst I have ever traveled over. At the time I passed over it it required four and one-half hours with a single seated light rig and a good team to cover a distance of ten miles. It seemed to me entirely unjustifiable, and I so informed the railroad company which advertises for tourist travel to the park, to induce tourists to pass over a road in the condition which I found it, and it seemed to me imperative that this part of the work should receive first attention."

Chittenden forthwith directed that more attention be devoted to work on the lower section of the road.³³

Contractor A. D. Miller, having failed to secure adequate financing to prosecute the work, now withdrew from the project. Miller's contract was annulled on 12 June 1906 and the work resumed with hired labor under government supervision. Another 7 miles of road, between the western park boundary and Longmire Springs, was completed this year. As part of this work, the Tahoma Creek Bridge was replaced with a new 38' single span structure in August, and another small bridge on rock crib abutments was built over an unnamed ravine. With the lower part of the road now complete, the Secretary of the Interior requested another \$70,000 for road construction in the 1907 budget.³⁴

Grenville F. Allen, still Acting Superintendent of Mount Rainier National Park, warned that with the pending completion of the road, a new constituency would begin to make demands on the park.

Upon the completion of the Government Road it is probable that there will be a desire to take automobiles into the park. The presence of these contrivances would be a source of great annoyance and some danger to the public generally. It may be that by the use of hired automobiles will eventually be the cheapest method by which to travel thru the park, but until this condition obtains they should be prohibited.³⁵

Another early restriction provided that no rental cars or livery service could proceed beyond Longmire Springs. This regulation in effect created a monopoly for approved park transportation companies.³⁶

The 1907 season was a short one, with construction crews working only from 1 June to 29 September. Clearing work was continued above Longmire Springs. An overhead hewed timber Howe truss bridge of 75' span with a curved deck to follow the terrain was constructed over Van Trump Creek Canyon, apparently some distance below Christine Falls. The work was done under the supervision of Overseer E. Tivendell by a force averaging 160 men.³⁷

Although Major Chittenden was now in overall charge of the project, Assistant Engineer Ricksecker continued to supervise operations. As of July 1908, 14 miles of road had been completed, with 11 miles remaining unfinished. By this point, the road had reached the Nisqually Glacier. This was noted as a major feat, as it was the first road in the country to reach an active glacier. A 100' wooden Howe truss bridge was erected across the river at this point. Visitation continued to increase; by the end of the year, 2,826 visitors were registered, and 117 automobile permits had been issued.³⁸

Acting Superintendent Allen reported that the automobiles were generally well-received. However, he pointed out that only the imposition of a strict speed limit protected motorists from considerable danger. He was loathe to prevent cars from using the road so long as drivers were aware of the need to adhere to the speed restrictions. "The owners of the automobiles derive a great deal of pleasure from the use of the road," he noted, "and I do not think that there is now any very general objection to them on the part of the public."³⁹

Ricksecker urged that the road be completed to Paradise Park in time for the opening of the Alaska-Yukon-Pacific Exposition which would be held in Seattle in 1909.⁴⁰ He also suggested a much more ambitious undertaking. In an October 1907 letter to the Secretary of the Interior, he also suggested that the road be extended on to Camp Muir:

In order to place the extensive views from the higher elevations within the reach of those now barred by the fatigue of tedious climbing on foot, it is suggested that the terminus of the road now building to Camp of the Clouds (elev. 5600) be placed as near Camp Muir (approx. elev. 10,000) as it is practicable to get it, and that a trail be made from end of road to Gibraltar Rock (approx. elev. 12,000) with such safety devices around this rock, now the most dangerous portion of the ascent of the Mountain, as will materially lessen the danger.⁴¹

Ricksecker also urged the construction of a stone shelter in the crater at the summit, stating it would be "a great public comfort."⁴² Nothing came of any of these suggestions, and the summit is still reached only by "tedious climbing on foot."

The first 18 miles of road was finished by 1 July 1909, and another 2 miles, while still not complete, were open for use. Superintendent Allen noted that construction crews had piled brush, stumps and other debris all along the route. Not only was this rubbish unsightly, he complained, but it also presented a very real fire hazard. Although he estimated that the brush could not be cleared for less than \$300 a mile, he recommended that the work be authorized to prevent a catastrophic fire. The number of visitors had grown in one year to 3,787. Of these, 3,670 arrived on the new road, 467 in automobiles. Cars could travel as far as the Nisqually Glacier, and by the end of the next season, could continue on to Narada Falls. The park rangers

were provided this year with a motorcycle for patrol work on the new road; its cost of operation for the year was \$15.00.⁴³

The first accidents on the road were recorded in 1909. The most serious was occasioned by a car being run off a bank by an incompetent driver, with the result that the owner, a Mr. Schoenfield of Tacoma, broke his arm. The other three were relatively minor.⁴⁴

The new road was completed to the Camp of the Clouds, a distance of twenty-five miles, in 1910. Superintendent Allen commended Ricksecker for the high quality of the road. The work was done with great care, and in no place was the grade greater than four percent. Allen stated that it "passes all points of interest" and called it "one of the best scenic routes in America." Immediately, the number of visitors soared. A total of 7,754 visitors entered the park that year. The number entering by car passed the number arriving by stage, 4,413 to 2,620 by stage. Two auto stages began operating out of Ashford, and the government allotted \$1,000 for the maintenance of the new road. Some final work remained to be done, and cars could still pass no further than Narada Falls.⁴⁵ However, the era of the automobile had begun in Mount Rainier National Park.

Major C. W. Kutz of the Corps of Engineers, who assumed from Chittenden the responsibility for matters related to the newly-completed road in 1908, requested an appropriation of \$5,000 for maintenance of the road. He defended the charges in his annual report, stating "This estimate of \$200 a mile may appear high, but, considering the mountainous character of the country, the damage from snowslides, and the fact that the road is new and surfaced only with such natural material as can be found close to the road, it is not extravagant."⁴⁶

Despite considerable acclaim from early users, the new road was already in need of considerable work. Park Superintendent Edward S. Hall called the road "well-located, but in places narrow and poorly drained." The government appropriated \$10,000 for work on the section above Narada Falls. Hall reported that the bridges were generally of good, heavy construction, but urged that two spans on the section of the road west of Longmire Springs, crossing Tahoma and Kautz creeks, be replaced with steel truss bridges. He also urged that the entire road be widened to 16' and macadamized. Such work, he reckoned, would cost about \$6,500 a mile. Extensive rock work, particularly more parapet walls at danger points, was needed along the road. Hall also noted that 30 miles of government road west of the park in the Rainier National Forest was in bad repair and not maintained. He called for the transfer of this section to the Interior Department, as the poor road hampered visitation to the National Park. Some 10,306 visitors made the trip anyway, all but 300 arriving by road. The park speed limit was increased this year to 15 miles an hour, except on curves. The De Lape Tours Company of Tacoma secured a permit to run automobile stages to Longmire Springs, but owing to faulty equipment, was not able to begin service. Permission to

operate rented cars in the park was granted to the Tacoma Touring Company, S. H. Gibbs & Co., the Tacoma Auto Livery Company, and W. B. Sanford.⁴⁷

The Sundry Civil Appropriations Act of 25 June 1910 authorized \$25,000 for widening the road in dangerous places and for the construction of stone guard walls in particularly hazardous areas. However, Major Kutz and his successor, Major J. B. Cavanaugh, maintained that even with such improvements, the road was constructed to be used as a wagon road, and substantial work would be required to make the road safe for automobiles. They held that the road was too narrow, and argued that the road should be metaled to bear the heavier traffic loads.⁴⁸ However, autos were still permitted to use the road in its present condition as far as Narada Falls.

Ricksecker had designed the road to cause as little damage as possible to the fine stands of trees in the park. But a dense stand of immense cedar trees on the lower part of the road west of Longmire Springs suffered when the Interior Department entered into a contract for the removal of dead and downed wood along the new route. The contractor forthwith "denuded" a three-mile stretch along the road, cutting considerable numbers of the immense trees before his activities were halted.⁴⁹

Interior Department Special Inspector Edward A. Keys visited Mount Rainier and examined the government road. He reported that it was 24.08 miles in length. As of 30 June, some 2.2 miles were only partially complete and 1.68 miles had not been constructed. The inspector noted that in many places the road was not 12' wide, but 10', and the crushed rock or macadam surface had only been half-completed. All of the bridges were of wooden construction, and Keys recommended their replacement with steel or concrete spans. He estimated the cost of widening and surfacing the road to a uniform 15' width at \$164,076. At Superintendent Hall's request, he also investigated a road route to Indian Henry's Hunting Grounds, a high subalpine meadow on the southwest flank of the mountain, but recommended against its construction.⁵⁰

By 1911, a deep valley just beyond Narada Falls was spanned by a curved wooden trestle, 182' long with a radius of 50'. Due to the sharp curve, the bridge was known as the "Horseshoe Bridge."⁵¹ The structure was of relatively light construction and was replaced in less than a decade.

Superintendent Hall requested that "an archway of rustic design" be constructed to mark the entrance to the park. On a visit from Seattle in 1910, Secretary of the Interior Richard A. Ballinger agreed, and directed Hall to proceed with its construction. Hall reported the completion of the peeled cedar log structure at the west entrance in the spring of 1911. This same year, the road was completed as far as Paradise Valley, though cars were still not permitted beyond Nisqually Glacier.⁵²

President William Howard Taft, accompanied by a considerable party, visited the park in automobiles on 8 October 1911. His car is popularly referred to as the first to reach Paradise Valley. Actually, the presidential touring car

bogged down in the mud above Narada Falls, and had to be dragged to the valley by a team of mules.⁵³ However, a vehicle driven by Mr. Lynn Miller, who was accompanied by Superintendent Hall and Edward Allen, had made it to Paradise Valley in August.⁵⁴

John Williams' early guide to the national park, *The Mountain that Was God*, was published in 1911. Williams, in the florid language of the day, offered the would-be traveler advice on his choice of routes from the Puget Sound:

Arriving in Seattle or Tacoma, the traveler has his choice of quick and enjoyable routes to the Mountain. He may go by automobile, leaving either city in the morning. After traveling one of the best and most interesting roads in the country--the only one, in fact, to reach a glacier--he may take luncheon at noon six thousand feet higher, in Paradise Park, overlooking great glaciers and close to the line of eternal snow. Or he may take the comfortable trains of the Tacoma Eastern (Milwaukee system) to Ashford, fifty-five miles from Tacoma, and then by automobile stages, over a picturesque portion of the fine highway just mentioned, to the National Park Inn at Longmire Springs (altitude 2,762 feet). Lunching there, he may then go on, by coach over the new government road, or on horseback over one of the most inviting mountain trails in America, or afoot, as many prefer. Thus he gains Paradise Park and its far-reaching observation point, Camp of the Clouds (elevation 5,800 feet). From the Inn, too, another romantic bridle path leads to Indian Henry's famous Hunting Ground, equally convenient as a base of adventure.

Whether the visitor goes to the Mountain by train or automobile, his choice will be a happy one. For either route leads through a country of uncommon charm. Each of them, too, will carry the visitor from the Sound up to the great and beautiful region on the southern slopes which include the Tahoma, Kautz, Nisqually, Paradise and Stevens canyons, with their glaciers and wonderful upland plateaus or "parks" that lie between.⁵⁵

Williams praised the new government road and engineer Ricksecker for the careful manner in which the road was designed and constructed. He did, however, echo earlier warnings about the shortcomings of the road for use by automobiles:

The alignment and grades originally planned have been followed, but for want of funds only one stretch, a mile and a quarter, has been widened to the standard width of eighteen feet. Lacking money for a broader road, the engineers built the rest of it twelve feet wide. They wisely believed that the early opening of the route for vehicles to Paradise, even though the road be less than standard width, would serve the public by making the Park better known, and thus arouse interest in making it still more

accessible, It will require about \$60,000 to complete the road to full width, and render it more thoroughly secure.⁵⁶

Despite his support for the extension and improvements to park roads, Williams opposed allowing automobiles to proceed beyond the Nisqually Glacier Bridge to Paradise Park. He criticized automobile clubs for wanting to turn Paradise into an "automobile club preserve," and alleged that motorists wanted no attention devoted to conservation or preservation until the road was made to run their machines into Paradise. While he admitted that "the road is safe for coaches drawn by well-broken horses and driven by trustworthy drivers," he insisted that "it would be an act of criminal folly to open it to the crowd of automobiles that would rush to Paradise Valley." If cars were ever to make the trip, he urged that they should only be allowed to do so in the charge of a park officer.⁵⁷

In most cases, however, the road was well-received. C. Frank Brockman, a well-known National Park Service naturalist, later spoke highly of Ricksecker's work, calling him "one of the first engineers to appreciate the importance of preserving the scenic beauty of an area through which a highway passed, and in making the most of its scenic attractions without a sacrifice of engineering principles."⁵⁸

Visitation continued to increase rapidly, as Mount Rainier could now be reached with relatively little effort. Some parties were now seeking out the mountain in the winter. Winter use of the park is generally traced to late 1912, when A. H. Denman of The Mountaineers organized a winter outing to Longmire Springs. As the road was covered with snow, the party had to walk in from Ashford on snowshoes, skis not yet having been introduced to the area.⁵⁹

Reconstruction and Maintenance

Park Superintendent Hall in 1913 requested \$20,000 for the construction of the spur road to Indian Henry's Hunting Grounds. This road would leave the main road 4 miles east of Longmire Springs and proceed northeast to the destination. The route was surveyed and staked out by army surveyors, but no funds were authorized for its construction. Hall also requested an appropriation of \$200 to provide mile posts along the road showing the distance to various points of interest. This was approved by the Interior Department on 6 May.⁶⁰

A new survey for the extension of the road from near Paradise to the east boundary of the park was completed under contract by W. M. Bosworth in the fall of 1914. The proposed road would be 44 miles in length.⁶¹ However, it would be another thirty years before construction got underway, and nearly five decades before the Stevens Canyon Road was completed.

Hall's successor as park superintendent, Ethan Allen, reported in June 1914 that the bridges over Tahoma Fork (Tahoma Creek) and Van Trump Creek (below Christine Falls) were in poor condition. Allen had ordered a new bent

installed at Tahoma Fork and repairs made to the Christine Falls span, but warned that neither bridge could be expected to serve much longer.⁶² He also criticized the condition of the Kautz Creek and Paradise River Fourth Crossing bridges. Provision was soon made for the replacement of the wooden bridge over Tahoma Fork with a permanent concrete structure. Allen requested following funds for road improvements for his fiscal year 1915 budget:

Park entrance to Longmire Springs, 6.5 miles	\$10,388.75
Longmire Springs to Nisqually Glacier, 5 miles	7,092.50
Nisqually Glacier to Narada Falls, 4.5 miles	10,388.75
Concrete Bridge over Kautz Creek	2,000.00 ⁶³

Mount Rainier National Park's 1915 appropriation was \$61,000.⁶⁴ This enabled Allen to order the road improvements, most important of which was the completion of the road to Paradise.

Allen also noted that 2 miles of the government road southwest of Longmire meandered out of the park boundaries onto Forest Service land, and that the park was prohibited by law from expending funds for maintenance over this section. He warned that without any maintenance, these two miles would soon deteriorate, making the entire road useless. He urged that the small amount of land over which the road passed be taken into the park. [Although the Interior Department refused to allow park funds to be used for the work, the area was taken into the park boundaries in 1926.]⁶⁵

The first 2 miles of road above the Nisqually Glacier (extending half a mile beyond Ricksecker Point) and the 10 miles above Narada Falls were considered troublesome spots; indeed, Superintendent Allen called them "the most dangerous sections of public road in the country." The park was given an allotment of \$15,000 for improvements to this section. This part of the road was widened, surfaced with native sand, and sided with timber guard rails and dry stone retaining walls by late fall. When the work was complete, Allen stated that the road was "in such shape that an automobile can scarcely be made to run off the road." Work also began on improving the 8 miles of road above Narada Falls in order to make the road available for the use of automobiles.⁶⁶

Park crews laid out 100' stations, beginning with Station 0 at the park entrance, for the entire length of the road in the spring of 1915. In March, the crews began widening and surfacing with sand and gravel the road, completing to station 45 by the end of the month. Eight heavy teams and a light express team were used. By the end of April, the road was wide enough for two automobiles to pass for a distance extending 10 miles above Longmire Springs. A total of \$11,000 was spent on the improvements to this lower section of the road.⁶⁷

In June, crews began widening the section of road between Nisqually Glacier and Narada Falls. By midsummer, Park Supervisor Dewitt L. Reaburn (appointed by Assistant Secretary of the Interior Mather to succeed Superintendent John

J. Sheehan, an ineffective political appointee) reported the road was in good condition and had been the subject of much favorable comment by users.⁶⁸

A total of \$32,364.19 was spent on repairs and improvements to the road. The work included widening, construction of rock and timber crib retaining walls and guard rails, and surfacing with 6" of cement gravel. In addition to the main phase of the work, the bridge over Tahoma Fork was replaced with a reinforced concrete structure of two 30' spans. The new bridge was constructed under contract by McHugh and Creelman of Tacoma at a price of \$2,365; construction of new approaches brought the total cost to \$2,564.81.⁶⁹

The government road was finally opened to automobiles for the entire length to Paradise in July 1915. However, due to the narrow width of the road, the last 7 miles were opened on a one-way control system, with uphill and downhill traffic allowed only at certain times. A 10' x 12' frame house was constructed to shelter the traffic control ranger at the Nisqually Glacier bridge. When road and weather conditions were favorable, "trains" of 100 to 125 cars could be handled on an hourly basis. In one instance in 1919, a total of 288 cars passed in one "train," requiring considerably more than an hour to clear.⁷⁰

Despite the extensive repairs, Supervisor Reaburn noted that sections of the road below Longmire Springs and above Narada Falls were frequently damaged in wet weather; indeed, the section between Narada Falls and Paradise had to be closed after each heavy rain. Reaburn reported that the old wooden truss bridge over Van Trump Creek at Christine Falls had been condemned on account of severe decay in the truss timberwork. A new bridge was being built a little farther up in the box canyon close to the falls, requiring considerable excavation work.⁷¹

The old "horseshoe bridge" across the canyon above Narada Falls was partially destroyed in the winter by a snow slide. Following an inspection of the structure in July 1915, Supervisor Reaburn recommended that the road should be relocated to avoid the need to reconstruct the bridge, which otherwise would invariably be swept away as well. Park crews constructed a rock wall and fill area to replace the bridge in August. The work, which cost about \$1,000, involved grading and surfacing approaches for about 500'.⁷²

The new bridge over Van Trump Creek was a 55' span constructed closer in towards Christine Falls. The structure was built of peeled cedar logs, with six stringers supported by a middle bent. The deck and railing were salvaged from the old bridge and recycled. Total cost of the structure was \$2,741.37. The old bridge remained in place until 3 June 1920, when, having been judged an eyesore, it was dismantled and burned.⁷³

Work began in 1917 to widen the road at all points below the Nisqually Glacier Bridge to a minimum width of 16'. The parking space at Narada Falls was increased by 50 percent, and new rock and log parapet walls were built in sections above the glacier bridge.⁷⁴

Severe floods in December caused major problems to the road. The new concrete bridge across Tahoma Fork was destroyed by failure of the central pier. The reinforced concrete body of the span fell into the stream, causing a bar to form and diverting the water against the approaches, which were washed out for a distance of 60'. Crews were forced to dynamite the wreckage in order to return the stream to its normal channel. Park Superintendent Reaburn noted that his predecessor Ethan Allen had warned against the construction of a concrete span dependent on a central pier, as there was no rock or hardpan within a reasonable depth. Debris would likely lodge against any pier, causing it to be undermined. Reaburn urged the construction of a cedar log structure, which would be considerably cheaper anyway, although heavy fills would be required to replace the approaches. The bridge across Kautz Creek was also destroyed.⁷⁵

Crews began cutting logs for the replacement bridge for Tahoma Fork in March 1918. Twenty men were engaged in the work, which began on the new Kautz Creek Bridge in April. The two structures were completed in May and the road was reopened as far as Nisqually Glacier. The new Tahoma Creek Bridge cost \$1,969.15 and the Kautz Creek Bridge \$437.55; both were single-span log stringer structures. The final repairs to the storm damage consisted of removal of slides at Ricksecker Point, the repair of parapet walls, and surfacing areas where the pavement had been broken up. The road reopened to Paradise in summer.⁷⁶

Even in its early years, the road required considerable expenditures of funds for maintenance and improvements. Over the first five years, the following funds were spent on the road:

1 July 1914 to 30 June 1915	\$32,364.19
1 July 1915 to 30 June 1916	17,865.94
1 July 1916 to 30 June 1917	25,560.58
1 July 1917 to 30 June 1918	32,421.05
1 July 1918 to 30 June 1919	6,738.76
1 July 1919 to September 1919 (approximate)	7,000.00 ⁷⁷

Work in the later phases consisted of widening the road from 12' to 16' or 18', construction of new culverts and bridges, rock and timber crib retaining walls and timber guard walls, and surfacing of the road with 6" of cement gravel.⁷⁸

In the 1919-1920 season, obsolete bridges and trestles at Dry Creek, Christine Falls and the first switchback above Narada Falls were removed. These were surviving spans which had already been replaced. New Superintendent Roger W. Toll noted that their removal considerably improved the road's appearance. During the same period, the parking area at Paradise was graded and surfaced, and new surfacing material was placed along the road where needed. However, Toll complained that the entire road needed resurfacing, preferably with crushed rock. He added the state was planning to surface the road from Tacoma to the park entrance, and predicted travel to the park would increase significantly. He urged

that the park road should be "at least equal in quality to the roads leading to the park." Already, more than 1,000 vehicles were passing over the road on some days.⁷⁹

Toll also suggested that the road's alignments be improved at sharp curves, as approaching traffic was not visible at a sufficient distance. Much of the danger could be attributed to careless drivers, but any reduction of sharp curves would probably avert some future accidents. He also complained about the control system for the upper section, warning that with increased traffic it would become more difficult and subject drivers to long and objectionable delays. The control system forced the park to assign rangers to its operation, when they could be doing much more valuable work. He urged that the road be widened to permit travel in both directions, or the construction of a second road for downhill travel. He suggested that this second road be constructed in the wooded area behind Ricksecker Point.⁸⁰

The commercial interests in Seattle and Tacoma were mainly concerned with the paving of the "Mountain Highway," as the section of road outside the park extending from Tacoma to the Nisqually Entrance was commonly called. The road was paved from Tacoma for a distance of 22 miles, and for the remainder of the distance was covered only with a coat of thin gravel. Park Superintendent Roger W. Toll termed the condition of these last 34 miles as "execrable," but that improvements could be expected. In his November 1920 monthly report, he noted that the 6 miles between Ashford and the park entrance were being relocated and improved, and stated that it would "behoove the Service" to pave the park road from the entrance to Longmire Springs in light of the state's planned improvements to the remainder of the road.⁸¹

Pierce County let a contract in February 1921 to reconstruct a 30 -mile section outside the park between the Nisqually Entrance and the Forest Reserve line. The \$88,000 contract, funded by a bond issue, included clearing, grubbing, bridges, etc. The work was scheduled in anticipation of the paving of the road from Tacoma to the park entrance, which had still not been done. In his monthly report, Superintendent W. H. Peters complained that the road was in "exceedingly rough condition" and needed grading badly. He reported that he had been assured the county would make necessary repairs before the opening of the tourist season. The county completed its repairs and reconstruction work in September and announced the road was ready for paving all the way from Tacoma to Mount Rainier.⁸²

In September 1921, park crews began widening and improving the upper section of the Nisqually Road. A bypass road was constructed behind Ricksecker Point, which had always been a bottleneck and was frequently closed by rockslides. Crews then began widening the road at Oh My! Point and on the rock cliff at Ricksecker Point, and constructed a second by-pass above the switchbacks between Narada Falls and Inspiration Point. This latter road was called the "Narada Cut-Off." Cars used the old road up the switchbacks for uphill traffic, and traveled downhill on the new bypass. The old switchback section was abandoned in 1926 when the Cut-Off was widened for two-way traffic.⁸³ This work was designed to eliminate the need for the one-way traffic control system, which Superintendent Peters had reported was the cause of many complaints.

Last Season nearly fifty-seven thousand people traveled this road in a period of less than three months, and due to the necessity for traffic control on this narrow portion of the road hundreds of visitors were forced to turn back and consequently were denied the ultimate pleasure of their visit to the park, namely, the trip to Paradise Valley. This traffic control system . . . is one of the park's largest items. . . . During four months of the year it is necessary to employ steadily three rangers at \$120.00 per month and three additional rangers (temporary) during weekends of heavy traffic.⁸⁴

Grading for the Narada Cut-Off began in August 1922. The widening of the upper section of the road and the elimination of switchbacks above Narada Falls was completed in 1922. These new "cut-off" roads would allow two-way travel up and down the road to Paradise. The rock point below Narada was drilled in September in preparation for blasting and removal the following spring. Widening and surfacing continued until September, when the cut-off was opened to the public. Crews then widened the road at Oh My! Point and the rock cliff at Ricksecker Point.⁸⁵

The Nisqually Road (as it was now commonly known) opened for the first time to unrestricted two-way travel on 25 June 1924. The elimination of the control system reduced the travel time from the Puget Sound cities to Paradise Valley by one hour, and freed ranger staff from the annoying duty of supervising the control system.⁸⁶

The improvements were evidently temporary. Although Park Superintendent Owen A. Tomlinson reported that at the end of July the road was in good condition on account of the maintenance and improvements, he stated that by the end of August the road was in very poor shape due to the lack of good surfacing and its "general worn out condition." He complained that "It has reached the stage where its maintenance is constantly increasing while the condition is gradually growing worse."⁸⁷

On 28 August, Superintendent Tomlinson wrote National Park Service Director Stephen T. Mather to urge that funds be provided for immediate work to the road. He stated that the condition of the road was rapidly becoming worse.

The road bed is worn down to rocks and boulders, is full of chuck holes and ruts that cannot be repaired. On several sections of this road where it follows the steep slopes the outer edge was built up by log cribbing and filled with earth. This cribbing is old and rotten requiring constant inspection and frequent repair. In spite of all the repairing and attention we are able to do with the Maintenance funds available there are many places where the cribbing is actually dangerous for heavy trucks and machines to go too near the outer edge when passing other vehicles. In July a section of 100 feet of cribbing supporting the outer edge of the road at Inspiration Point fell out, blocking the road for several hours until repairs could be made. Had this happened when a stage

or car was passing the point the vehicle would have fallen over a precipice several hundred feet high.

In addition to the rotten cribbing, lack of surfacing and draining, there are 4 bridges on this road that must be replaced. These wooden structures are old and rotten. They have been braced and strengthened several times each season for the past four or five years until further repair is not practicable.⁸⁸

Tomlinson singled out the Nisqually River bridge as particularly dangerous, and suggested that it might not last another season. He hinted that for the safety of the public, he might be forced to soon close the road due to the condition of the bridge.⁸⁹

Relief was not long in coming. The National Park Service received a \$7.5 million appropriation for road improvements for the national parks in 1925. For its share of the amount, Mount Rainier National Park developed a three-year road development plan. The first priority was improvements to the 21-mile Nisqually Road. Contracts for the construction of five concrete and two rustic log bridges were let on 1 August. At the same time, engineers were collecting data for other road improvements and surfacing. A total of \$1,024,000 was authorized for road development in the park over the three year period, of which \$235,000 was available the first year. Most of this money (\$210,000) was allocated for the repairs and improvements to the Nisqually Road.⁹⁰

Contracts were let on 1 August 1925 to contractors Feldschau and Chaffee of Tillamook, Oregon, for the construction of three reinforced concrete bridges, two rustic log bridges, and a series of reinforced concrete culverts for the road. By the end of the month, temporary bridges for detours across Edith Creek, Paradise Creek Fourth Crossing, and across Paradise River on the Narada Cut-Off were finished, but the park superintendent remarked in his monthly report that unless the contractor made better progress, the completion of the structures according to schedule was very doubtful. If the work was forced into the next summer, the concessioner at Paradise would be adversely affected, and the public would be subjected to much inconvenience.⁹¹

More surfacing work was done in the summer of 1925. In fact, the Park Service seemed to be continually at work surfacing the road. Superintendent Tomlinson continued to complain, stating that the light surfacing material was constantly being blown off the road into the underbrush on the right-of-way. He bemoaned the road conditions in his July monthly report:

It is extremely difficult and expensive to maintain a first class gravel, or crushed rock road--which the Nisqually Road never was--where traffic exceeds 500 cars a day. At the rate travel is increasing it seems that we will be compelled to pave the entire road before many years as a matter of economy in maintenance if for no other reason.⁹²

Bureau of Public Roads Takes Charge

That month, a major change in park road planning occurred when the National Park Service signed a Memorandum of Agreement with the Bureau of Public Roads (BPR), an agency of the U.S. Department of Agriculture, whereby the Bureau took charge of major road construction and improvement projects in all the national parks. The National Park Service remained involved through review by its engineering and landscape engineering divisions, and local park officials were also involved in the placement of new roads and reconstruction of existing ones. Engineering, construction planning and project administration were taken over by the BPR, but the Park Service dictated location, approved all designs, and retained final approval on projects. The first project in Mount Rainier National Park undertaken by the Bureau of Public Roads was the reconstruction of the Nisqually Road.

As the work got underway, NPS Acting Chief Civil Engineer Bert H. Burrell complained that the funds allocated for the Nisqually Road improvements were insufficient. He cited traffic studies which showed that more than one thousand private automobiles were visiting Paradise each day during the season, and this figure did not include park transportation, trucks or delivery vehicles. Such traffic demanded a modern hard surface pavement from the park entrance to Paradise Valley. Gravel surfacing was proving insufficient, as the heavy traffic either swept the gravel to the sides or pounded it into the soft subgrade. The gravel also produced prodigious clouds of dust, and trees and shrubs were coated for a distance extending 200' from the roadway. This effect, he claimed, was "robbing the foliage of its beauty and leaving the forest as a gray, unsightly mass." A dustless pavement, was in his terms, not only desirable but "a necessity." Burrell had inspected the log cribbing holding up the road at several points and estimated it had a life of five years or less; these needed replacement with dry stone walls, or preferably, masonry retaining walls. Narrow places and curves needed widening, and much of the road would have to be reconstructed in order to provide for a modern pavement of 18' width. He called for use of concrete pavement, stating that neither asphaltic concrete or penetration macadam would stand the Rainier traffic. Simply resurfacing the road with gravel would not do.⁹³

Reconstruction of the road began in late 1925 with Park Service force account labor. The first section to be rebuilt was the stretch between the Nisqually entrance and Longmire Springs. As the original road had been built over logs and stumps, these had to be removed in the reconstruction work, adding considerable labor and cost to the project. This section was completed on 31 March 1926, and the force crews began clearing and grubbing the 5ⁿ miles between Longmire and Glacier Bridge. Mild weather conditions allowed the work to progress speedily. Park Superintendent Tomlinson made daily inspections of the work.⁹⁴

In October 1925, Dr. Lawrence I. Hewes, Regional Director of the Bureau of Public Roads, requested that the Park Service's work on the Nisqually Road be suspended pending the turnover of the project to the BPR for administration. National Park Service Director Stephen T. Mather agreed to the request, but dictated that the work be expedited due to the critical importance of the project. The BPR formally took over the supervision of the road reconstruction by the end of the month. The National Park Service had just completed its surveys and plans for the

reconstruction; however, the BPR deemed it advisable to resurvey the upper 12-mile section before advertising bids. The necessary clearing and grubbing work was carried out by park forces.⁹⁵

The Rainier National Park Advisory Board, consisting of a membership from chambers of commerce and civic organizations across the state (but principally in the Puget Sound area), met in Seattle on 16 January 1926 to discuss park matters. Although the board urged the Park Service to undertake a major road program involving the construction of roads on the east, west, and south sides of the park, it affirmed that the major priority should be the reconstruction of the Nisqually Road.⁹⁶

Bids for grading and surfacing twelve more miles of the road were opened at the office of the District Engineer of the Bureau of Public Roads in Portland, Oregon on 21 January 1926. The low bidders, Miley and Fox of Everett, Washington, could not demonstrate adequate financing and withdrew. The next low bidder, J. F. Clarkson of Portland, did not accept the contract after hearing the other bids and determining his own to have been too low. The BPR made plans to award the work to the third lowest bidder, Philbrick and Nicholson, Inc., of Tacoma, but Clarkson reconsidered and was given the contract on 19 February.⁹⁷

Clarkson began work on 10 March with a small crew placing culverts. His heavy equipment arrived on the 24th, and grading work began. Work by Feldschau & Chaffee on the Kautz and Tahoma creek bridges continued slowly. The Kautz Creek Bridge was completed and opened to traffic on 14 April, but the Tahoma Creek Bridge was not complete until the end of June. Excavation for the abutments for the bridge over the Nisqually River at the glacier began on 20 May.⁹⁸

The change of alignment at the Nisqually entrance forced the park to alter the rustic log entrance "arch." The old structure was only 22' wide, and in the course of the work the structure was widened to a full 30', more adequate for larger vehicles. The park also received a \$3,000 appropriation for a new checking station for the Nisqually Entrance in 1926. The park considered the types recently constructed at Yellowstone and Yosemite national parks, and finally adopted one of the Yosemite type, being constructed to the side of the road, rather than spanning the road as at Yellowstone. This station was completed in September.⁹⁹

Most of the "Mountain Highway" connecting Tacoma with the park boundary was resurfaced in 1925 and 1926. By midsummer of 1926, only 6.6 miles of the route was unpaved.¹⁰⁰

With the completion of the new Nisqually Glacier Bridge in October 1926, Feldschau and Chaffee finally finished their contract for the construction of five new bridges and two culverts for the road. The new structures were as follows:

Tahoma Creek, rustic 60' log stringer span.....	\$8,129.39
Kautz Creek, rustic 40' log stringer span	4,643.60
Nisqually Glacier concrete slab and arch, 50' span.....	16,978.32
Narada Cut-Off Bridge, 38' concrete slab and girder	5,308.65
Fourth Paradise Crossing, 35' stone faced concrete arch	7,641.17

Edith Creek Bridge, 32' span stone faced concrete arch..... 11,047.64
Concrete culvert at West Side Road junction2,372.50
Concrete culvert at Longmire Springs.....1,962.67
TOTAL COST OF BRIDGES AND CULVERTS.....\$58,083.94¹⁰¹

During the course of the work of the Kautz Creek Bridge, one of the two principals in the firm, Mr. Feldschau, was killed in a construction accident at the bridge site.¹⁰²

While Clarkson's contract work on the lower road section was still in progress, the Bureau of Public Roads began preparing plans for the reconstruction of the upper 8 miles of the road. A conference was held at the BPR district office at Portland in April 1927 to plan for the coming season's work. Participants were Park Superintendent Tomlinson, BPR District Engineer C. H. Purcell, and NPS Landscape Engineer E. A. Davidson. The three discussed proposed changes in the upper section of the road, the type of bridge to be constructed at Christine Falls, a retaining wall at Glacier Cliff, and other road matters. BPR Assistant Highway Engineer R. N. Kellogg arrived in the park in June and set up a camp at Narada Falls to oversee the reconstruction of the upper section of the road.¹⁰³

Clarkson's contract for the reconstruction of the road between the park entrance and Nisqually Glacier to a 24' width was completed before the opening of the 1927 tourist season. The road was surfaced with crushed rock for the entire length of the contract. The reconstructed road avoided the lower switchbacks above Narada Falls by following the old Narada Cut-Off as far as Inspiration Point, which was the last of the old series of switchbacks. Both Inspiration Point and Ricksecker Point were widened and provided with parking areas for motorists who wished to partake of the scenic views. Park Superintendent Tomlinson reported that the project provided "the first modern road that has been available for motorists in Mount Rainier National Park since automobiles were admitted." He added that "The wide curves, easy grades and smooth crushed rock surface of this road were a source of much satisfaction and favorable comment by motorists."¹⁰⁴

In May 1927, the Rainier National Park Company proposed the construction of a new "scenic loop road" in the upper Paradise Valley. The concessionaire hoped that such a road would draw more visitors to the Paradise Inn and its other operations. The proposal was heartily endorsed by Asahel Curtis, Chairman of the Rainier Park Advisory Board.¹⁰⁵

Engineer Kellogg began a reconnaissance survey for a "Paradise Scenic Loop" in September 1927. Kellogg investigated routes to the Glacier Overlook, to Alta Vista, and across the terminal moraine of the Paradise Glacier. Kellogg determined that the roads could only be constructed at extreme cost. Following much discussion, National Park Service Director Stephen Mather disapproved the project in August 1928, citing high cost and the certain devastation of the alpine landscape. The company's general manager, T. H.

Martin, then wrote Congressman Louis Cramton for his support for the project.¹⁰⁶ The road proposal was to surface again the following year.

Bids for the reconstruction of the upper 8-mile section of the existing road were opened at the Portland office of the Bureau of Public Roads on 28 June 1927. Contractor John Hampshire of Grants Pass, Oregon, submitted the winning bid of \$377,855; he was to complete the work by the fall of 1929. Hampshire established his construction camp at Narada Falls in July. His work proceeded on schedule and was completed late in 1929.¹⁰⁷

The BPR's District Engineer Purcell, Highway Engineer J. A. Elliott, and Resident Engineer Kellogg accompanied NPS Landscape Engineer Thomas C. Vint and Superintendent Tomlinson on an inspection tour in the Paradise area in July 1927. They discussed road plans and parking in Paradise Valley, and also made an inspection of the Longmire section nearing completion under the Clarkson contract. The contractor completed his operations at the end of the month.¹⁰⁸

The park 18 tons of calcium chloride in July 1927 and spread it on the section of road between the park entrance and Longmire. The material was purchased as a dust eliminator on recommendation by the Bureau of Public Roads. The material was judged very satisfactory.¹⁰⁹

Contracts were let on 22 July 1927 for the construction of new bridges over Van Trump Creek at Christine Falls [HAER No. WA-48] and the Paradise River at Narada Falls [First Crossing, HAER No. WA-47]. These were to be reinforced concrete spans with stone veneers. The award went to J. D. Tobin of Portland, Oregon, who bid \$22,468 for the construction of the two bridges. The two stone-faced reinforced concrete bridges were completed in June 1928, and Superintendent Tomlinson reported that much favorable comment was being received from visitors.¹¹⁰

In February 1928, Superintendent Tomlinson attended a meeting of senior National Park Service officials at the agency's San Francisco office. Tomlinson made a presentation on the needs and problems of the ongoing road improvement work at Mount Rainier. At the meeting, NPS Chief Landscape Engineer Vint again indicated his opposition to the construction of the Paradise "Scenic Loop." Vint felt that its construction would depreciate the foreground views from the Paradise area. He also warned that it would require large sums for snow removal and could be kept open only for a short season.¹¹¹

The proposed Paradise "scenic loop" was not forsaken, however. At the request of the National Park Service, the BPR surveyed a potential route for a "scenic loop" between the terminus of the road and Alta Vista, higher in Paradise Valley. The road was intended to afford the disabled or those "disinclined to hike" a better view of the mountain scenery. Two surveys were conducted in 1928, one for a road with a 6 percent grade and one for an 8 percent grade. The latter line was adopted as it would cost less and

involve a shorter, less conspicuous route. A location survey (staking) was run on the latter line in 1931. The BPR estimated the cost of construction at \$147,363. Superintendent Tomlinson supported the construction of the road and in a confidential letter to NPS Director Horace Albright indicated that he thought park crews could build the road for only \$50,500. However, Albright wrote back indicating there were no funds available to begin construction.¹¹² This was the end of serious consideration for the scenic loop road; today's Skyline Trail follows much of the proposed route.

Also in 1928, park force account crews began construction of a spur road to a new hotel site in the upper end of Paradise Valley. Special attention was devoted to preserving the high meadow landscape so as not to spoil side hills, to protect vegetation, and to prevent rocks from rolling beyond the line of fill and causing damage. The road was completed in 1929 at a cost of approximately \$24,000. The new Paradise Lodge opened in June.¹¹³

The park road funds were exhausted in October 1928. While awaiting a new appropriation, contractor John Hampshire, working on the Paradise section, stated that he was unable to finance their work until Congress came up with new funds. Superintendent Tomlinson complained to Park Service Director Mather that Hampshire's suspension would create a very serious condition, and that the unfinished nature of the work would prevent visitors from making the trip to Paradise Valley the following summer. He requested an expenditure of \$5,000 to allow the surfacing work to continue under park force account.¹¹⁴

The first park program of roadside cleanup began in 1930 under the supervision of National Park Service Landscape Architect E. A. Davidson. Efforts were concentrated on the Nisqually Road around Narada Falls and in the lower Paradise Valley. Timber from old bridges, logs and brush were collected and burned. Rocks from slides and heavy excavation blasting were dumped in draws. The first year program cost \$5,000.¹¹⁵ This work would continue over the years.

With the new series of improvements to the upper section of the road complete, attention was again devoted to the segment below Longmire. Mitchell Brothers of Seattle received a contract in 1930 to cover 12 miles of the road with asphaltic macadam. The work was completed on 9 July 1931. Bids for asphaltic paving of another 11.77 miles of the road were opened at the Portland, Oregon office of the District Engineer of the Bureau of Public Roads on 23 July 1930. Recommendation was made to award the contract to the low bidder, Stillwell Brothers of Seattle.¹¹⁶

That same month, Park Superintendent Tomlinson reported serious rock slides in the vicinity of Inspiration Point. The situation was so acute that the park had been forced to keep a man stationed there to remove obstructions. A serious injury occurred when a falling rock struck a car's windshield, badly cutting the driver's scalp. Tomlinson insisted that either the slope should be cut back considerably or a new rock wall constructed to prevent rocks from sliding onto the road. More rockslides in September forced the park to close

the section of road and route traffic over the Narada Cut-Off. The Ricksecker and Narada Cut-Offs were reconstructed later in the year.¹¹⁷

To this point, the park had only attempted to maintain a winter road as far as Longmire. In 1931, the park purchased a Sno-Go plow and began keeping the road open as far as the Nisqually Glacier Bridge, which generally received double the snow at Longmire. This shortened the winter hiking distance to Paradise and helped encourage winter sports use.¹¹⁸

Another glacial flood in October 1932 destroyed the 6-year old Glacier Bridge. The structure was replaced by the end of the month by a temporary log stringer span. A new reinforced concrete structure was built at the crossing in 1933 by the Western Construction Company of Seattle.¹¹⁹

Rockslides in the area of Inspiration Point continued to prove troublesome. In April 1933, park crews built a heavy timber structure, similar to a snowshed, over the road at this point to protect the roadway until funds became available for more permanent repairs. A new parking area was constructed at Narada Falls that year by personnel from the Emergency Conservation Works program, a Depression era public works program.¹²⁰

On 24 October 1934, just one year and three days after the new Nisqually Glacier Bridge had been placed in service, it was destroyed by another glacial flood. The Park Service again replaced the structure with another reinforced concrete arch structure on the same site; the new span was completed in 1936.¹²¹

In 1935, a contract was let for minor reconstruction and surfacing of the upper section of the road and for the production of bituminous aggregate. Work began in June of that year and was completed in October 1936. The reconstruction surfacing was laid 22' wide and some 20,000 tons of crusher run material were stockpiled for later bituminous surfacing. In November 1936, a contract for a 2" bituminous surfacing of the section between Nisqually Glacier and Paradise was awarded to Warren Northwest, Inc. Warren began its work in July 1937 and completed its project in October.¹²²

Workers from the Emergency Conservation Works (a division of the Civilian Conservation Corps public relief program) camp at Tahoma Creek planted over and obliterated several abandoned sections of roadway along the Nisqually Road in the 1935 season. They also planted trees and shrubs along both sides of the Tahoma Creek Bridge and opened up a vista above the bridge allowing motorists to view the mountain in the distance. Crews from Camp N.P. 2, established at Narada Falls, were actively engaged in roadside cleanup along the road.¹²³

On 18 November 1936, bids were opened for another contract involving the construction of masonry guardrails, resloping and slope stabilization of the upper 8-mile section of the road between the Nisqually River and Paradise Valley. Alex Baseloff of Seattle, Washington, was the low bidder, and was

awarded the project on 12 December. The contractor began operations the following June, and finished the project in July 1938. Much of the work involved resloping at Ricksecker Point and extension of the masonry guardrails at the point and at other locations along the road.¹²⁴

The Power House Bridge across Nisqually River was destroyed by floods in the fall of 1940. The Christine Falls Bridge was damaged by the same flood. Emergency funds were for allotted repairs.¹²⁵

Little work other than routine maintenance was carried out in the early 1940s on account of the Second World War. Several stretches of guard rail were reconstructed in 1941 by contractor J. H. Monohan at a cost of \$22,011.73. The Tahoma and Kautz creek bridges were reconstructed in 1942 by replacing the guard rails and widening the spans to 21'.¹²⁶

As soon as the World War ended, the State of Washington and various groups began to press the park administration to keep the road open to Paradise throughout the winter season. In November 1945, Washington Governor Wallgren announced that he was asking the state highway department to cooperate in keeping the road open. National Park Service Director Newton B. Drury stated that the Service would not object to the state financing of the snow removal operations, but insisted that the Park Service could not and would not reimburse the state for any expenditures; however, if supplemental appropriations were made, the NPS would take over the task. Following the announcement, the state attorney general ruled that state funds could not be used for snow removal on national park roads. Park crews did that year try to keep the road open, but "exceptionally heavy snows" in January 1946 forced closure of the road anyway.¹²⁷

At 11:30 PM on 2 January 1946. V. J. McElderberry drove a Marine Highway bus into the Nisqually Entrance booth, totally destroying the structure. The park report suggested that McElderberry was either intoxicated or asleep at the wheel, and he was fined \$100 for destruction of government property. The park asked the bus company or its insurance carrier to replace the booth and repair other damage.¹²⁸

On 2 October 1947, a tremendous debris flow swept down the Kautz Creek valley, destroying approximately one-half mile of road. The Kautz Creek bridge was buried under rocks and mud, and the park headquarters at Longmire were isolated. The Nisqually River also flooded; a section of the road just below Longmire was washed out, and the Glacier Bridge was damaged. To deal with the crisis, an emergency road was constructed from the Longmire Campground to connect with the Skate Creek Road on Forest Service land south of the park. Work was pressed on repairs to the main road and the bridge. All repairs were complete by the end of November. In the following spring, a parking area was constructed at Kautz Creek so that visitors could stop and view the destruction.¹²⁹

The park ceased maintaining an open road in winter above Longmire in 1950 on account of the suspension of winter service at Paradise by the Rainier National Park Company. However, following considerable complaints, the park was instructed the following year to keep the road open as far as Narada Falls. The result was, not surprisingly, another increase in winter use.¹³⁰

The Kautz Creek Bridge was reconstructed in 1954 at a cost of approximately \$19,000. The contractor was Thomas M. Mock of Tacoma. Like the preceding structure, the new 63' span was constructed of log stringers with wooden rails.¹³¹

The Narada Falls compromise was not acceptable to commercial interests and winter users, and in October 1954 a campaign began to keep the road open all the way to Paradise. Washington Governor George Langlie wrote the Secretary of the Interior, supporting the proposal and adding his support for winter accommodations and an aerial tramway for skier's use. Area newspapers and the *Washington Motorist* also clamored for the "Modernize the Mountain" campaign. The Park Service policies were supported by The Mountaineers, who preferred the development of a ski area at Corral Pass outside the park on Forest Service land. They denounced the plans for a ski resort in the park as a "contrivance" out of keeping with the park's basic legislation.¹³²

The campaign to open the road was successful, and the Park Service reached a decision to maintain the road to Paradise for the winter season of 1954-55. The Rainier National Park Company agreed to provide a ski tow and lunch facilities, but the Paradise Inn was not kept open. The winter ski area at Cayuse Pass remained in service. The winter opening of the Paradise Road proved very popular, and a 73 percent increase in use for December through April was logged. Only 35 percent of the cars carried skis, indicating that most visitors were using the road for sight-seeing.¹³³

On 25 October 1955, flood waters swept away the Nisqually Glacier Bridge again. A large washout a quarter-mile below Longmire forced the closure of the lower section of the road. A Bailey bridge was installed at the Glacier crossing in November, enabling controlled, one-way traffic to Paradise. Having been forced to replace the bridge at this crossing three times on account of floods, the Park Service determined to replace the structure with a new high-level span located a hundred yards below the old crossing. This required construction of new approaches as well. The new high-level Nisqually Glacier Bridge opened to public use on 16 August 1960, although final work on the structure continued until 24 June 1961.¹³⁴

Heavy traffic to Paradise Valley prompted the Park Service to construct a new road between to the Valley from "Frog Heaven" near Narada Falls in 1958. The new two-way road was built at a cost of \$488,000. It was surfaced with 2" of asphalt in 1962-63 at an additional cost of \$97,000. Cut slopes along the upper part of the Paradise road were stabilized in 1963. The entire road was repaved with a 2" x 24' asphalt mat between 1962 and 1965 at a cost of

\$439,000. Twelve acres of slope around Christine Falls were stabilized or reseeded in the same period.¹³⁵

Federal Highway Administration bridge inspector W.S. Wood inspected the log stringer bridges across Kautz and Tahoma creeks in June 1965. He recorded some deterioration of the wooden elements but none so severe as to endanger users. However, on account of the high volume of vehicles using the spans, he recommended that consideration be devoted to their replacement. The two bridges were replaced with reinforced concrete deck bridges in 1968 at a cost of \$200,000.¹³⁶

Also in 1965, the road from Nisqually Glacier Bridge to Oh My! Point through the Miller Cut-Off was reconstructed and surfaced at a cost of \$250,000. Three years later, the section of road between Oh My! Point and the Stevens Canyon junction was resurfaced at a cost of \$40,000.¹³⁷

The Nisqually Road remains the most important of the Mount Rainier access roads. It continues to serve as the main approach road from Tacoma and other points in southwestern Washington. Park crews clear away snow to keep the Paradise area open for winter use, a major undertaking. Although the road has been reconstructed on several occasions, motorists still take delight in the original route as selected by Eugene Ricksecker and constructed by the Corps of Engineers. The road offers splendid views of old-growth forest, rushing waterfalls, and incomparable Mount Rainier.

Description

The first road constructed in Mount Rainier National Park, and still its principal thoroughfare, the Nisqually Road enters the southwest corner of the park, proceeds east to Longmire, then climbs to the fabled subalpine meadows of Paradise Valley, the park's principal development and most popular attraction. The road roughly follows the route of the primitive wagon trail constructed by James Longmire and his family. The "Government Road" designed by Eugene V. Ricksecker, is remarkable for its sensitive relationship to the magnificent park landscape. The road climbs on a steady grade not exceeding 4 percent from Longmire to Paradise. It takes in fabulous vistas and provides access to old-growth forest, waterfalls, a retreating glacier, and finally, the lush flower fields of Paradise Valley. Although reconstructed in the 1920s, the road still follows the original route for most of the distance to Paradise. The road is only park route maintained for winter travel.

The 18.4-mile road begins at the Nisqually Entrance, seven miles east of Ashford, Washington. It is a continuation into the park of the old "Mountain Highway" from Tacoma, now numbered as State Highway 706 outside the park boundaries. The park entrance is located in the lowland forest zone at an elevation of 2,003'. Passing the reconstructed "rustic style" entrance arch and 1926 log entrance station, the road continues east through an outstanding old-growth forest, dominated by Douglas fir interspersed with enormous pines, spruces and cedars. Half a mile east of the entrance, the road passes the Sunshine Point Campground. Another half a mile further east, the West Side

Road [HAER No. WA-122] heads off north to Klapatche Point. The Nisqually Road continues east through the big trees, crossing Tahoma and Kautz creeks on modern reinforced concrete and steel girder bridges, 1968 replacements for the two original log stringer spans. The road makes a slight rise to cross Kautz Creek, the only deviation from its steady grade to Paradise; this is because a 1947 debris flow cascading down the valley buried the old road under 30' of rocky wastes, requiring its reconstruction at the new grade level.

Longmire, at 2,757' elevation, is reached at mile six. This is the oldest developed area at Mount Rainier and the setting of James Longmire's 1880s Longmire Springs "resort." Park headquarters was located here for many years, and maintenance and many other operations are still centered here. The development features several outstanding examples of "rustic style" architecture, including the Administration Building, the Longmire Community Building, and a 1929 rustic service station (a National Historic Landmark). At the upper end of the development, the Nisqually Suspension Bridge [HAER No. WA-44] carries a service road providing access to the Community Building, the former Longmire Public Auto Camp, and a connection with the Skate Creek Road on U.S. Forest Service land outside the park.

From Longmire, the road continues northeast, keeping to the northwest side of the Nisqually River. The Cougar Rock Campground and adjacent picnic area are passed a mile later. It winds around a series of sharp curves for the next mile and crosses Van Trump Creek on the Christine Falls Bridge [HAER No. WA-48]. Two small parking areas allow visitors to park and follow a short trail to a scenic overlook, showing the lovely waterfall framed by the lovely stone-faced reinforced concrete bridge. At this point, the road has climbed to 3,677,' and is in the heart of the intermediate forest zone dominated by the silver fir. Part of this road segment winds through what is called the "Silver Forest." This name comes not from the silver firs but from weathered trunks left standing after an 1890s forest fire.

Three quarters of a mile further east, the road swings around the lower flank of Cushman Crest and crosses the Nisqually River on the high-span Nisqually Glacier Bridge [HAER No. WA-61]. The snout or lower end of the Nisqually Glacier is visible a quarter mile up the boulder-strewn river bed. The old road crossed 600' further upstream; the lower crossing was frequently washed out by tremendous glacial floods, and the present 1961 span was designed to withstand such catastrophes.

From the Glacier Bridge (elev. 3,913'), the road runs southwest a mile to Ricksecker Point. The old road runs around the point as a one-way scenic road; a 1920s bypass road or "cut-off" cuts across the ridge above the point, and the scenic road joins it a third of a mile later. From Ricksecker Point, the combined road continues northeast, passing the Canyon Rim Viewpoint (elev. 4,468') before veering southeast through Frog Heaven, a marshy bog. Half a mile past Canyon Rim, the road arrives at Narada Falls. An old parking area, constructed for holding traffic when the Nisqually Road was operated under the control system, was reconstructed in 1933 and provides parking for visitors

wishing to view Narada Falls from the parapet walls above or an overlook trail below. Access to the trail, a comfort station, and a winter operations shed is provided by the Paradise River First Crossing Bridge [HAER No. WA-47] at the site. The Nisqually Road originally crossed the previous bridge at this site and climbed a series of high stone switchbacks to Inspiration Point. In the 1920s, the road was relocated over the "Narada Cut-Off" to avoid the steep and crumbling slopes.

The "Narada Cut-Off" section of the Nisqually Roads continues northeast through the marshy Paradise River valley for one half mile, at which point it turns northwest onto a modern (1958) road segment for the final approach to Paradise Valley. Paradise, at 5,557' elevation, is the highest point reached by the road. This popular development is located to the side of the massive Nisqually Glacier and just below the Paradise Icefield leading to Camp Muir, the main base for summit attempts. The 1958 road leads to large parking areas serving the Henry M. Jackson Visitor Center and the Paradise Inn. The views from Paradise are awesome, with Mount Rainier towering above on one side and the Tatoosh Range sweeping across the other.

From the Paradise Inn, the original route of the Nisqually Road heads northeast as a one-way scenic road, crossing the semicircular arch Edith Creek Bridge [HAER No. WA-46], then turning southeast to cross the Paradise River Fourth Crossing Bridge [HAER No. WA-47]. It then runs south and southwest to another junction. The "Narada Cut-Off," which passed over the Paradise River Second Crossing Bridge [HAER No. WA-62] is met at this junction. The Stevens Canyon Highway [HAER No. WA-127] runs from this point southeast to Inspiration Point and then east across the southern flank of Mount Rainier.

The Nisqually Road is characterized by its stone-faced "rustic style" bridges, long stretches of stone parapet and retaining walls, the natural areas at the two waterfalls, by the Nisqually Glacier, and by the sweeping views of Mount Rainier. Most visitors are fixated on Paradise as a destination, but still take delight in the splendid old-growth forest on the lower section of the road. Although reconstructed in the 1920s, the road generally keeps to the line of the old road constructed by the Corps of Engineers, and remains one of the best examples of how park roads can be designed to harmonize with their rugged settings.

III. ENDNOTES

- 1.. Arthur D. Martinson, *Wilderness Above the Sound: The Story of Mount Rainier National Park* (Flagstaff, AZ: Northland Press, 1986), 28. Longmire did not file a homestead claim, as he would have been ineligible, having already filed at Yelm Prairie. He did file a mineral claim on nearly twenty acres around the springs in 1887, based on "mineral paint beds" and "auriferous gravel." This patent was issued on 6 February 1892.
- 2.. H. E. Rensch, *Mount Rainier: Its Human History Associations* (Berkeley, CA: National Park Service, Field Office of Education, 1935), 28.
- 3.. Benjamin Levy, *Longmire Cabin, Mount Rainier National Park: Historic Structures Report, Part I* (San Francisco, CA: National Park Service, 1968), 7; Russell K. Grater, *Grater's Guide to Mount Rainier National Park* (Portland, OR: Binford & Mort, Publishers, 1949), 75; Rensch, 29; John H. Williams, *The Mountain that was God* (New York: G.P. Putnam's Sons, 1911), 59.
- 4.. Martinson thesis, 24, 27.
- 5.. Grater, 75; Robert N. McIntyre, "Short History of Mount Rainier National Park," (*Mount Rainier National Park*, 1952), 59.
- 6.. [Name], Secretary of the Interior, *Report of the Secretary of the Interior, 1903* (Washington, D.C.: Government Printing Office, 1904), 142, 163.
- 7.. *Ibid.*, 164; John Millis, Major, U.S. Army Corps of Engineers, to Eugene Ricksecker, Assistant Engineer, U.S. Army Corps of Engineers, 4 April 1903. Eugene Ricksecker Letter Book, 1903-1906, entry #269, Mount Rainier National Park archives; "Road to Mount Rainier," typewritten MSS report, in Ricksecker Letter Book.
- 8.. "Road to Mount Rainier," 1-2.
- 9.. H. H. Rust et al., *Citizens of Enumclaw, Petition that the Enumclaw route be adopted to Mt. Rainier*, 1904; "Petition of Citizens of Yakima recommending that route be adopted for Mt. Rainier road as suggested by Enumclaw Chamber of Commerce," 1904. MORA Archives, File H14, Road Reports, 1904-06; L. E. Smith, Commissioner, King County, to Millis, 1 May 1903. MORA Archives, File H14, Road Reports, 1904-06.
- 10.. Tacoma Chamber of Commerce to Eugene Ricksecker, 30 April 1903. MORA Archives, File H14, Road Reports, 1904-06.
- 11.. Millis to George L. Gillespie, Brigadier General, U.S. Army Corps of Engineers, 31 July 1903, MORA Archives, Ricksecker Letter Book, entry #37; Millis to Gillespie, 31 August 1903, entry #40; Millis to Gillespie, 30 September 1903, entry #70; *Report of the Secretary of the Interior, 1903*, 164.

- 12.. Millis to H. M. Chittenden, Captain, U.S. Army Corps of Engineers, Yellowstone National Park, Wyoming, 2 October 1903. Ricksecker Letter Book, entry #61-62. Millis to Chittenden, 27 October 1903, entry #86.
- 13.. Len Longmire, interview with Park Naturalist, 14 June 1951. MSS, MORA Archives Box A7623, Fatalities, 1888.
- 14.. Millis to Gillespie, 31 October 1903, Ricksecker Letter Book, entry #98; Millis to Gillespie, 30 November 1903, entry #107.
- 15.. Ricksecker to Millis, 14 May 1904, in Ricksecker Letter Book, no entry #. Another trail had been opened, following the Nisqually to a point about three-quarters of a mile above Van Trump Creek, crossing the river half a mile below the Nisqually Glacier. From this point, it zigzagged up to the summit of Gap Point Ridge, crossed over to Frog Heaven, and twisted around a series of benches to reach the Camp of the Clouds. However, by 1904, the trail had fallen into disuse and was nearly obliterated, so attention was concentrated on the other route.
- 16.. *Ibid.*.
- 17.. Ricksecker to Millis, 14 May 1904, 9-10.
- 18.. Millis to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers, 8 February 1904, Ricksecker Letter Book, entry #120; Millis to Mackenzie, 18 June 1904; entry #138-40; Millis to Ricksecker, 11 July 1904, entry #157.
- 19.. *Report of the Secretary of the Interior, 1904* (Washington, D.C.: Government Printing Office, 1905), 5-7.
- 20.. Ricksecker, "Road to Mount Rainier," 9-12.
- 21.. *Ibid.*, 12-13.
- 22.. *Ibid.*, 14-19.
- 23.. *Ibid.*, 20.
- 24.. Oscar A. Piper, Inspector, to Eugene Ricksecker, n.d. (1904), Ricksecker Letter Book, 4-5.
- 25.. James H. Murphy, Chief Clerk, U.S. Army Corps of Engineers, Seattle, WA, to Brigadier General A. Mackenzie, Chief of Engineers, Washington, D.C., 9 February 1904. Ricksecker Letter Book, n.p.
- 26.. Millis to Mackenzie, 31 August 1904. Ricksecker Letter Book, entry #285.
- 27.. *Report of the Secretary of the Interior, 1905* (Government Printing Office, 1905), 182; *Annual Report upon the Construction, Repair and Maintenance of Roads*

and Bridges in the Yellowstone National Park, and the Road into Mount Rainier National Park; Survey for Wagon Road from Valdes to Fort Egbert, Alaska, and Survey for Military Trail between Yukon River and Coldfoot, Alaska, in the Charge of Hiram M. Chittenden, Major, Corps of Engineers, U.S.A., and John Millis, Major, Corps of Engineers, U.S.A., Being Appendixes FFF and KKK of the Annual Report of the Chief of Engineers for 1905 (Washington, D.C.: Government Printing Office, 1905), 2839; John Millis to A. D. Miller, Seattle, WA, 30 June 1905. Ricksecker letter book.

28.. Murphy to G. F. Allen, Forest Supervisor, Ashford, WA, 21 October 1904; Murphy to John Zug, Lieutenant, U.S. Army Corps of Engineers, Nile, WA, 21 October 1921. Ricksecker letter book; G. F. Allen, Forest Supervisor, to Millis, 19 October 1904. MORA Archives, H-14, Road Reports, 1904-06, Rainier Park Forest Reserve file.

29.. Millis to G. F. Allen, 7 November 1904; John Millis to Eugene Ricksecker, 7 November 1904. Ricksecker letter book.

30.. Libby Mills, "History of the East Side Development--Ohanapecosh Area," Summer 1977, 7. Copy in Longmire Library.

31.. Report of the Joint Committee of the Mazama Club and the Sierra Club on the Mt. Rainier National Park (no place of publication listed, 1905), 6-8.

32.. G. F. Allen, Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1906 (Washington, D.C.: Government Printing Office, 1906), 6; Annual Report Upon the Construction, Repair and Maintenance of Roads and Bridges, etc. (1905), 2841-42.

33.. Chittenden to Mackenzie, 30 July 1906. Ricksecker Letter Book.

34.. Chittenden to Mackenzie, 31 August 1906. Ricksecker letter book; Chittenden to A. D. Miller, 9 July 1906. Ricksecker letter book; Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, Ernest D. Peek, 1st Lt., Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, Hiram M. Chittenden, Major, Corps of Engineers, U.S.A., in Charge: Annual Report of the Chief of Engineers, 1907, Appendixes JJJ and KKK (Washington, D.C.: Government Printing Office, 1907), 858; Report of the Secretary of the Interior, 1905 (Washington, D.C.: Government Printing Office, 1906), 182.

35.. G. F. Allen, Report of the Acting Superintendent of the Mount Rainier National Park, 1906 (Washington, D.C.: Government Printing Office, 1907), 7.

36.. Franklin K. Lane, Secretary of the Interior, to W. L. Jones, U.S. Senate, 22 September 1917; Lane to J. L. Nielson, Commander, Ex-German Submarine U.S.S. UB-88, Tacoma, WA, 11 November 1919. National Archives, RG 48 Box 1991 File 12/7 Part 1, Complaints.

37.. Report Upon the Construction, Repair and Maintenance of Roads, etc., 1908, Appendixes III and JJJ (Washington, D.C.: Government Printing Office, 1908), 2553.

- 38.. G. F. Allen, *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1908* (Washington, D.C.: Government Printing Office, 1908), 8-10; *Report Upon the Construction, Repair and Maintenance of Roads, etc., (1908), 2554.*
- 39.. Idem, *Report of the Acting Superintendent (1908), 8-9.*
- 40.. Ricksecker to Chittenden, 15 April 1908. MORA Archives, Ricksecker Letter Book.
- 41.. Ricksecker to James R. Garfield, Secretary of the Interior, 18 October 1907. MORA Archives, File H14, Road Reports, 1904-1907, Ricksecker file.
- 42.. *Ibid.*
- 43.. G. F. Allen, *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1909* (Washington, D.C.: Government Printing Office, 1909), 7, 10-12; Samuel Estes, Park Ranger, to Acting Superintendent Mt. Rainier National Park, 11 September 1909. Filed with Acting Superintendent's Annual Report, 1909, MORA Archives, Box H2621.
- 44.. G. F. Allen, *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1909* (Washington, D.C.: Government Printing Office, 1909), 12; Estes to Acting Superintendent.
- 45.. G. F. Allen, *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1910* (Washington, D.C.: Government Printing Office, 1910), 7-9.
- 46.. *Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, Willbur Willing, Captain, Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, C.W. Kutz, Major, Corps of Engineers, U.S.A., in Charge: Annual Report of the Chief of Engineers, 1910, Appendixes HHH and III* (Washington, D.C.: Government Printing Office, 1910), 1057.
- 47.. Edward S. Hall, Superintendent, Mount Rainier National Park, *Report of the Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1911* (Washington, D.C.: Government Printing Office, 1910), 6-11.
- 48.. *Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, C. H. Knight, Captain, Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, J. B. Cavanaugh, Major, Corps of Engineers, U.S.A., in Charge; and, Report Upon Crater Lake National Park: Annual Report of the Chief of Engineers, 1912, Appendixes GGG, HHH and III* (Washington, D.C.: Government Printing Office, 1912), 1340.

- 49.. Erwin N. Thompson, *Historic Resource Study: Mount Rainier National Park* (Denver, CO: National Park Service, Denver Service Center, 1968), 241.
- 50.. Thompson, 195; E. A. Keys, Special Inspector, U.S. Department of the Interior, to Carmi A. Thompson, Acting Secretary of the Interior, 21 December 1911, 2. National Archives, RG 79 Entry 22.
- 51.. Ricksecker, "Notes on the Construction of Rainier Park Road," n.d. (1911), 2. MORA Archives, Box H14, Road Reports 1907-1913.
- 52.. *Ibid.*, 7; Emilie Martin, "Mount Rainier Park's New-Old Entry Portal," *Seattle Times Pictorial*, 18 November 1973; Grater, 77.
- 53.. Hall, *Report of the Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1911* (Washington, D.C.: Government Printing Office, 1911), 10; Rensch, 30.
- 54.. C. F. Brockman, *The Story of Mount Rainier National Park* (Longmire, WA: Mount Rainier National Park History Association, 1940), 30n.
- 55.. Williams, 44, 49.
- 56.. *Ibid.*, 62.
- 57.. *Ibid.*, 72.
- 58.. C. Frank Brockman, *The Story of Mount Rainier National Park* (2nd rev. ed., Longmire, WA: Mount Rainier National Park Natural History Association, 1952), 29-30.
- 59.. Hazard, 173.
- 60.. E. A. Keys, Special Inspector, U.S. Department of the Interior, to Secretary of the Interior, 21 December 1911. MORA Archives, File D22, Construction Program 1912; "Proposed Work in Mount Rainier National Park," 1913. MORA Archives, File D22, Construction Program 1912; Hall to Secretary of the Interior, 26 April 1913; Note by Assistant Secretary of the Interior on *Ibid.*, 6 May 1913. MORA Archives, File D22, Construction Programs 1913-1915.
- 61.. *Ibid.*, 16.
- 62.. Ethan Allen, Superintendent's Monthly Report, June 1914, 2. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- 63.. Ethan Allen, *Report of the Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1914* (Washington, D.C.: Government Printing Office, 1914), 8, 12-13.
- 64.. Martinson, "First Years," 32.

- 65.. Ethan Allen, *Report of the Superintendent* (1914), 13; O. A. Tomlinson, *Superintendent, Mount Rainier National Park, Superintendent's Annual Report, 1926*, 3. MORA Archives, Box H2621, *Superintendents' Annual Reports 1926-1932* file.
- 66.. Ethan Allen, *Superintendent, Mount Rainier National Park, Superintendent's Monthly Report, September 1914*, 1-2. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file; Dewitt L. Reaburn, *Supervisor, Mount Rainier National Park, "Report of Expenditures in Mt. Rainier National Park for Fiscal Year Ending June 30, 1915,"* 1. National Archives, RG 79 Entry 6 Box 131, *Repairs and Improvements Work, File #3*.
- 67.. John J. Sheehan, *Supervisor, Mount Rainier National Park, Supervisor's Monthly Report, March 1915*, 1; *Supervisor's Monthly Report, April 1915*, 1. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file; Reaburn, *"Report on Expenditures, 1915,"* 1.
- 68.. Reaburn, *Supervisor's Monthly Report, July 1915*, 2; Idem, *"Statement Submitted Pursuant to Section 10 of the Sundry Civil Act Approved August 1, 1914,"* 2. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file.
- 69.. Idem, *Report of the Supervisor of the Mount Rainier National Park to the Secretary of the Interior, 1915* (Washington, D.C.: Government Printing Office, 1915), 7, 14; Idem, *Supervisor's Monthly Report, July 1915*, 2.
- 70.. Martinson, *Wilderness*, 40; Reaburn to Secretary of the Interior through Mark Daniels, *General Superintendent of the National Parks, San Francisco, CA, 23 August 1915*. National Archives, RG 79 Entry 6 Box 131, *Repairs and Improvements Work, File #3*; Roger W. Toll, *Superintendent's Annual Report, 1919*. MORA Archives Box H2621, *Superintendent's Annual Reports 1917-1925* file.
- 71.. Reaburn, *Report of the Supervisor* (1916), 54.
- 72.. *Ibid.*; Reaburn, *Supervisor's Monthly Report, May 1916*, 2; Idem, *"Work Accomplished in Mount Rainier National Park, August 1916,"* attached to *Supervisor's Monthly Report, August 1916*. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file.
- 73.. Reaburn, *"Work Accomplished in Mount Rainier National Park During October 1916,"* attached to *Supervisor's Monthly Report, October 1916*. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file; Toll, *Superintendent's Monthly Report, June 1920*, 4. MORA Archives Box H2615, *Superintendents' Monthly Reports 1920-1923* file.
- 74.. Reaburn, *Annual Report to the Secretary of the Interior, 1917*, 7. MORA Archives Box H2621.
- 75.. Idem, *Supervisor's Monthly Report, December 1917*, 1-2. MORA Archives Box H2615, *Superintendents' Monthly Reports 1913-1919* file.

76. Idem, Superintendent's Monthly Report, March 1918, 2; Superintendent's Monthly Report, April 1918, 3; Superintendent's Monthly Report, May 1918, 3; Superintendent's Monthly Report, June 1918, 3. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file
77. *Ibid.*, 12.
78. *Ibid.*.
79. Toll, Superintendent's Annual Report, 1920, 2-3. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.
80. *Ibid.*, 3-4.
81. Toll, Superintendent's Monthly Report, November 1920, 5. MORA Archives Box H2615, Superintendents' Monthly Reports 1920-1923 file.
82. W. H. Peters, Superintendent, Mount Rainier National Park, Superintendent's Monthly Report, February 1921, 3; Superintendent's Monthly Report, September 1921, 3. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.
83. Idem, Superintendent's Annual Report, 1924, 1. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file; Thompson, 198-99.
84. Quoted in Thompson, 197.
85. C. L. Nelson, Acting Superintendent, Mount Rainier National Park, Superintendent's Monthly Report, August 1922, 3; Superintendent's Monthly Report, October 1922, 4; Tomlinson, Superintendent's Annual Report, 1923, 7; Superintendent's Monthly Report, September 1924, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923, 1924-1927 files.
86. Tomlinson, Superintendent's Annual Report, 1924, 1. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.
87. Idem, Superintendent's Monthly Report, August 1924, 1. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
88. Tomlinson to Stephen T. Mather, Director, National Park Service, 28 August 1924. MORA Archives, File D22, Construction Program 1924.
89. *Ibid.*.
90. Idem, Superintendent's Annual Report, 1925, 1a-2a, 10. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.
91. Idem, Superintendent's Monthly Report, September 1925, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.

92. Idem, Superintendent's Monthly Report, July 1925, 2. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
93. Bert H. Burrell, Acting Chief Civil Engineer, National Park Service, to Horace M. Albright, Superintendent, Yellowstone National Park, 15 August 1925. National Archives, RG 79 Entry 22 Box 18, 1-2.
94. Tomlinson, Superintendent's Monthly Report, January 1926, 1-2; Superintendent's Monthly Report, March 1926, 2. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
95. Mather to Tomlinson, Telegram, 16 October 1925. MORA Archives, File D22, Construction Program 1925; R. N. Kellogg, Assistant Highway Engineer, National Park Service, "Report on Investigation of Nisqually Road, Longmire Section, in Mount Rainier National Park," 1. National Archives, RG 79 Entry 22 Box 11, Contract Estimates File E.04-E.05-E.06.
96. Tomlinson, Superintendent's Monthly Report, January 1926, 1-2. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
97. *Ibid.*, 7; Idem, Superintendent's Monthly Report, February 1926, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
98. Idem, Superintendent's Monthly Report, March 1926, 3; Superintendent's Monthly Report, April 1926, 5; Superintendent's Monthly Report, May 1926, 6; Superintendent's Monthly Report, June 1926, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
99. Idem, Superintendent's Monthly Report, January 1926, 2; Tomlinson to D. R. Hull, Landscape Engineer, National Park Service, Los Angeles, 20 February 1926. National Archives, RG 79, Entry 22 Box 18; Idem, Superintendent's Monthly Report, September 1926, 5. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
100. Tomlinson, Superintendent's Annual Report, 1926, 4. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
101. Idem, Superintendent's Monthly Report, October 1926, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
102. Burrell to Kellogg, 30 November 1925. National Archives, RG 79 Entry 22 Box 18, Mesa Verde National Park file.
103. Tomlinson, Superintendent's Monthly Report, April 1927, 5; Superintendent's Monthly Report, June 1927, 3. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
104. Idem, Superintendent's Annual Report, 1927, 1-2. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file; Tomlinson to Ed Anderson,

Associated Press, 8 April 1929. MORA Archives, Superintendent's Personal Correspondence files.

105. H. A. Rhodes, President, Rainier National Park Company, to Stephen T. Mather, Director, National Park Service, 18 May 1927. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s; Asahel Curtis, Chairman, Rainier Park Advisory Board, to Stephen T. Mather, Director, National Park Service, 17 May 1927. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

106. Tomlinson, Superintendent's Monthly Report, September 1927, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file; Mather to Tomlinson, 23 August 1928; T. H. Martin, General Manager, Rainier National Park Company, to Congressman Louis C. Cramton, 12 December 1928. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

107. Tomlinson, Superintendent's Monthly Report, June 1927, 7; Superintendent's Monthly Report, July 1927, 4; Superintendent's Monthly Report, July 1930, 9. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.

108. Idem, Superintendent's Monthly Report, July 1927, 2, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.

109. Idem, Superintendent's Monthly Report, July 1927, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.

110. Idem, Superintendent's Annual Report, 1927, 12; Superintendent's Annual Report, 1929, 16. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file; Superintendent's Monthly Report, July 1927, 4; Superintendent's Monthly Report, August 1927, 5; Superintendent's Monthly Report, June 1928, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927, 1927-1931 files.

111. Memorandum of Staff Conference, San Francisco, CA, 28 February 1928. MORA Archives, File D22, Construction Program 1928; Thomas C. Vint, Chief Landscape Engineer, National Park Service, to Albright, 2 February 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

112. C. G. Polk, Assistant Highway Engineer, Bureau of Public Roads, "Report on Location Survey (1931) of the Paradise Valley-Alta Vista Road, Mount Rainier National Park Project 7-A, State of Washington, 1931, 1-3. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s; Tomlinson to Albright, 31 August 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s; Albright to Tomlinson, 2 October 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

113. R. D. Waterhouse, Resident Engineer, Mount Rainier National Park, "Report on Construction Activities in Mount Rainier National Park, Calendar Year 1928," 6. MORA Archives, File H14, E.C.W. 1928-29; Tomlinson, Superintendent's Monthly Report, June 1931, 2. MORA Archives, Box H2615, Superintendents' Monthly Reports 1928-1931 file.

114. Tomlinson to Mather, 10 October 1928. National Archives, RG 79 Entry 29 Box 29, File 630, Roads.
115. "Landscape Engineering," Memorandum for Tomlinson, Superintendent's Annual Report, 1930, 23. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
116. Tomlinson, Superintendent's Annual Report, 1930, 14; Superintendent's Annual Report, 1931, 13. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file; Superintendent's Monthly Report, July 1930, 12. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
117. *Ibid.*, 13; *Idem*, Superintendent's Monthly Report, September 1930, 4; Superintendent's Monthly Report, October 1930, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1928-1931 file.
118. *Idem*, Superintendent's Annual Report, 1931, 7. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
119. *Idem*, Superintendent's Monthly Report, October 1932, 1. Superintendents' Monthly Reports 1932-1935 file; Superintendent's Annual Report, 1934, 45. MORA Archives, Box H2615, Superintendents' Annual Reports 1933-1935 file.
120. *Idem*, Superintendent's Monthly Report, April 1933, 6. MORA Archives, Box H2615, Superintendents' Monthly Reports 1932-1935 file; Superintendent's Annual Report, 1933, 16. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
121. *Idem*, Superintendent's Annual Report, 1935, 5, 9, 33-34. MORA Archives, Box H2621, Superintendents' Annual Reports 1933-1935 file; Superintendent's Monthly Report, October 1934, 1. MORA Archives, Box H2615, Superintendents' Monthly Reports 1932-1935 file.
122. George B. Forrest, Senior Engineering Inspection Superintendent, Bureau of Public Roads, "Final Construction Report (1936-1938) on West Entrance-Paradise Inn Highway, Mt. Rainier National Park Project 1-B Guard Rail, Resloping and Slope Stabilization, Mt. Rainier National Park, Lewis and Pierce Counties, State of Washington" (Portland, OR: Bureau of Public Roads, 13 April 1939), 2; Tomlinson, Superintendent's Monthly Report, November 1936, 5; Superintendent's Monthly Report, October 1937, 4. MORA Archives, Box H2615, Superintendents' Monthly Reports 1936-1939 file.
123. M. J. Pike, Project Superintendent, Tahoma Creek Camp, Emergency Conservation Works, "Camp N.P.1, Tahoma, Mt. Rainier National Park, Narrative Report, Fifth Enrollment Period, 1935" (Mount Rainier National Park: National Park Service, 1935), 5; C. E. Drysdale, Supervising Engineer, Emergency Conservation Works, "Final Report on E.C.W. Activities, Third Enrollment Period, Season of 1934," 21-22. MORA Archives, File H14, ECW Activities 1934.

124. Forrest, 2-3, 7.
125. O. W. Carlson, Acting Superintendent's Annual Report, 1941, 3. MORA Archives, Box H2621, Superintendents' Annual Reports 1933-1935 file.
126. Idem, Superintendent's Annual Report, 1941, 11; Superintendent's Annual Report, 1943, 2. MORA Archives Box H2621, Superintendents' Annual Reports 1941-1953 file.
127. Idem, Superintendent's Monthly Report, November 1945, 1-2; Superintendent's Monthly Report, December 1945, 1-2; Superintendent's Monthly Report, January 1946, 2. MORA Archives, Box H2621, Superintendents' Monthly Reports 1941-1946 file.
128. Idem, Superintendent's Monthly Report, January 1946, 2.
129. John C. Preston, Superintendent, Mount Rainier National Park, Superintendent's Annual Report, 1948, 2. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file; Harthon L. Bill, Acting Superintendent, Mount Rainier National Park, Superintendent's Monthly Report, October 1947, 1-2; Superintendent's Monthly Report, November 1947, 1-2; Preston, Superintendent's Monthly Report, April 1948, 2. MORA Archives, Box H2621, Superintendents' Monthly Reports 1947-1952 file.
130. Preston, Superintendent's Annual Report, 1951, 7. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file.
131. General Services Administration, Construction Contract, Kautz Creek Bridge, 20 September 1954. MORA Archives, Box H, File D52, Kautz Creek Bridge Contract.
132. Preston P. Macy, Superintendent, Mount Rainier National Park, Superintendent's Annual Report, 1954, 2-3. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file.
133. Idem, Superintendent's Annual Report, 1955, 1. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file.
134. Idem, Superintendent's Annual Report, 1956, 2. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file; Ruben O. Hart, Acting Superintendent, Mount Rainier National Park, Superintendent's Annual Report, 1962, 2. MORA Archives, Box H2621, Superintendents' Annual Reports 1962-1964 file.
135. "History of Road Construction in Mount Rainier National Park," 1-2. MORA Archives, File D30, History of Roads.
136. Ibid.; W. S. Wood, Federal Highway Projects Engineer, Portland, OR to G. T. Markich, Bridge Engineer, Washington Department of Highways, Olympia, WA, 2 July 1965. MORA Archives, Box D30, Bridges (General) file.
137. Ibid..

IV. BIBLIOGRAPHY

- [Name], Secretary of the Interior. *Report of the Secretary of the Interior*, 1903. Washington, D.C.: Government Printing Office, 1904.
- [Name], Secretary of the Interior. *Report of the Secretary of the Interior*, 1904. Washington, D.C.: Government Printing Office, 1905.
- [Name], Secretary of the Interior. *Report of the Secretary of the Interior*, 1905. Washington, D.C.: Government Printing Office, 1906.
- Albright, Horace M., Director, National Park Service, to O.A. Tomlinson, Superintendent, Mount Rainier National Park, 2 October 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.
- Allen, Ethan, Superintendent, Mount Rainier National Park. *Report of the Superintendent of the Mount Rainier National Park to the Secretary of the Interior*, 1914. Washington, D.C.: Government Printing Office, 1914.
- Superintendent's Monthly Report, June 1914. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Superintendent's Monthly Report, September 1914. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Allen, G[renville] F., Forest Supervisor, Rainier National Forest Reserve. *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior*, 1906. Washington, D.C.: Government Printing Office, 1906.
- Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1908. Washington, D.C.: Government Printing Office, 1908.
- Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1909. Washington, D.C.: Government Printing Office, 1909.
- Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior, 1910. Washington, D.C.: Government Printing Office, 1910.
- Allen to James H. Murphy, Chief Clerk, U.S. Army Corps of Engineers, Seattle, WA, 19 October 1904. MORA Archives, Box H14, Road Reports 1904-1906, Rainier National Forest Reserve file.
- Annual Report upon the Construction, Repair and Maintenance of Roads and Bridges in the Yellowstone National Park, and the Road into Mount Rainier National Park;*

Survey for Wagon Road from Valdes to Fort Egbert, Alaska, and Survey for Military Trail between Yukon River and Coldfoot, Alaska, in the Charge of Hiram M. Chittenden, Major, Corps of Engineers, U.S.A., and John Millis, Major, Corps of Engineers, U.S.A., Being Appendixes FFF and KKK of the Annual Report of the Chief of Engineers for 1905. Washington, D.C.: Government Printing Office, 1905.

Bill, Harthon L., Acting Superintendent, Mount Rainier National Park.
Superintendent's Monthly Report, October 1947. MORA Archives, Box H2621,
Superintendents' Monthly Reports 1947-1952 file.

--Superintendent's Monthly Report, November 1947. MORA Archives, Box H2621,
Superintendents' Monthly Reports 1947-1952 file.

Brockman, C. Frank. *The Story of Mount Rainier National Park*. Longmire, WA: Mount
Rainier National Park Natural History Association, 2nd rev. ed., 1952.

Burrell, Bert H., Acting Chief Civil Engineer, National Park Service, Portland, OR
to R.N. Kellogg, Associate Engineer, National Park Service, Mount Rainier
National Park, 30 November 1925. National Archives, RG 79 Entry 22 Box 18,
Mesa Verde National Park file.

Carlson, O. W., Acting Superintendent, Mount Rainier National Park.
Superintendent's Annual Report, 1941. MORA Archives, Box H2621,
Superintendents' Annual Reports 1941-1953 file.

--Superintendent's Annual Report, 1943. MORA Archives, Box H2621,
Superintendents' Annual Reports 1941-1953 file.

--Superintendent's Monthly Report, November 1945. MORA Archives, Box H2621,
Superintendents' Monthly Reports 1941-1946 file.

--Superintendent's Monthly Report, December 1945. MORA Archives, Box H2621,
Superintendents' Monthly Reports 1941-1946 file.

--Superintendent's Monthly Report, January 1946. MORA Archives, Box H2621,
Superintendents' Monthly Reports 1941-1946 file.

Chittenden, Hiram M., Major, U.S. Army Corps of Engineers to A. Mackenzie,
Brigadier General, U.S. Army Corps of Engineers, 30 July 1906. MORA
Archives, Eugene Ricksecker Letter Book.

--Chittenden to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers,
31 August 1906. MORA Archives, Eugene Ricksecker Letter Book.

--Chittenden to Secretary of the Interior, 27 July 1907. MORA Archives, File H14,
Road Reports, 1907-1913.

Coon Holler (Mount Rainier National Park employee newsletter), 14 January 1952.

"Corrigidor Fort Builder Taken by Death." *Seattle Times*, 28 March 1952.

Curtis, Asahel, Chairman, Rainier Park Advisory Board, to Stephen T. Mather, Director, National Park Service, 17 May 1927. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

Drysdale, C. E., Supervising Engineer, Emergency Conservation Works. "Final Report on E.C.W. Activities, Third Enrollment Period, Season of 1934." MORA Archives, File H14, ECW Activities 1934.

Estes, Samuel, Park Ranger, Mount Rainier National Park, to G. F. Allen, Acting Superintendent, Mount Rainier National Park, 11 September 1909. Filed in *Report of the Acting Superintendent of the Mount Rainier National Park to the Secretary of the Interior*, 1909. Washington, D.C.: Government Printing Office, 1909.

Forrest, George B., Senior Engineering Inspection Superintendent, Bureau of Public Roads. "Final Construction Report (1936-1938) on West Entrance-Paradise Inn Highway, Mt. Rainier National Park Project 1-B Guard Rail, Resloping and Slope Stabilization, Mt. Rainier National Park, Lewis and Pierce Counties, State of Washington." Portland, OR: Bureau of Public Roads, 13 April 1939.

General Services Administration. Construction Contract, Kautz Creek Bridge, 20 September 1954. MORA Archives, File D52, Kautz Creek Bridge Contract.

Grater, Russell K. *Grater's Guide to Mount Rainier National Park*. Portland, OR: Binfords & Mort, Publishers, 1949.

Hall, Edward S., Superintendent, Mount Rainier National Park. *Report of the Superintendent of the Mount Rainier National Park to the Secretary of the Interior*, 1911. Washington, D.C.: Government Printing Office, 1911.

--Hall to Secretary of the Interior, 26 April 1913. MORA Archives, File D22, Construction Program 1913-1915.

Hart, Ruben O., Acting Superintendent, Mount Rainier National Park. Superintendent's Annual Report, 1962. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file.

"History of Road Construction in Mount Rainier National Park." MORA Archives, File D30, History of Roads.

Kellogg, Caroline. "Eugene Ricksecker Helped Open Up Mountain." *The (Tacoma, WA) News Tribune*, 7 May 1978.

- Kellogg, R. N., Assistant Highway Engineer, National Park Service. "Report on Investigation of Nisqually Road, Longmire Section, Mount Rainier National Park." National Archives, RG 79 Entry 22 Box 11, Contract Estimates File E.04-E.05-E.06.
- Keys, E. A., Special Inspector, U.S. Department of the Interior, to Secretary of the Interior, 21 December 1911. National Archives, RG 79 Entry 22.
- Lane, Franklin K., Secretary of the Interior, to W.L. Jones, U.S. Senate, 22 September 1917. National Archives, RG 48 Box 1991, File 12/7 Part 1, Complaints.
- Lane to J. L. Nielson, Commander, Ex-German Submarine U.S.S. UB-88, Tacoma, WA, 11 November 1919. National Archives, RG 48 Box 1991, File 12/7 Part 1, Complaints.
- Levy, Benjamin. *Longmire Cabin, Mount Rainier National Park: Historic Structures Report, Part I.* San Francisco, CA: National Park Service, 1968.
- Longmire, Len. Interview with Park Naturalist, 14 June 1951. MSS, MORA Archives Box A7623, Fatalities, 1888.
- McIntyre, Robert N. "Short History of Mount Rainier National Park." Typed MSS. Mount Rainier National Park, 1952.
- Macy, Preston P., Superintendent, Mount Rainier National Park. Superintendent's Annual Report, 1954. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file.
- Superintendent's Annual Report, 1955. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file.
- Superintendent's Annual Report, 1956. MORA Archives, Box H2621, Superintendents' Annual Reports 1954-1966 file.
- Martin, Emilie. "Mount Rainier's New-Old Entry Portal." *Seattle Times Pictorial*, 18 November 1973.
- Martin, T. H., General Manager, Rainier National Park Company, to Congressman Louis C. Cramton, 12 December 1928. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.
- Martinson, Arthur D[avid]. "The Influence of the Longmire Family Upon the Early History of Mount Rainier National Park." Masters thesis, University of Washington, 1961.
- "Mount Rainier National Park: First Years." *Forest History*, Vol. X No. 3, October 1966.

--*Wilderness Above the Sound: The Story of Mount Rainier National Park.*
Flagstaff, AZ: Northland Press, 1986.

Mather, Stephen T., Director, National Park Service, to O.A. Tomlinson,
Superintendent, Mount Rainier National Park. Telegram, 16 October 1925.
MORA Archives, File D22, Construction Program 1925.

--Mather to Tomlinson, 23 August 1928. MORA Archives, File D30, Roads and
Trails, Paradise Scenic Road 1920-1930s.

"Memorandum of Staff Conference, San Francisco, CA, 28 February 1928." MORA
Archives, File D22, Construction Program 1928.

Millis, John, Major, U.S. Army Corps of Engineers, to G. F. Allen, Forest
Supervisor, Rainier National Forest Reserve, Ashford, WA, 7 November 1904.
MORA Archives, Eugene Ricksecker Letter Book.

--Millis to H. M. Chittenden, Captain, U.S. Army Corps of Engineers,
Yellowstone National Park, Wyoming, 2 October 1903. Eugene Ricksecker Letter
Book, entry #61-62.

--Millis to H. M. Chittenden, Captain, U.S. Army Corps of Engineers,
Yellowstone National Park, Wyoming, 27 October 1903. Eugene Ricksecker
Letter Book, entry #86.

--Millis to George L. Gillespie, Brigadier General, U.S. Army Corps of
Engineers, 31 July 1903. MORA Archives, Eugene Ricksecker Letter Book, entry
#37.

--Millis to George L. Gillespie, Brigadier General, U.S. Army Corps of
Engineers, 31 October 1903. MORA Archives, Eugene Ricksecker Letter Book,
entry #98.

--Millis to George L. Gillespie, Brigadier General, U.S. Army Corps of
Engineers, 30 November 1903. MORA Archives, Eugene Ricksecker Letter Book,
entry #107.

--Millis to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers,
8 February 1904. MORA Archives, Eugene Ricksecker Letter Book, entry #120.

--Millis to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers,
18 June 1904. MORA Archives, Eugene Ricksecker Letter Book, entry #138-40.

--Millis to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers,
11 July 1904. MORA Archives, Eugene Ricksecker Letter Book, entry #157.

--Millis to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers,
31 August 1904. MORA Archives, Eugene Ricksecker Letter Book, entry #285.

--Millis to A. D. Miller, Seattle, WA, 30 June 1905. MORA Archives, Eugene Ricksecker Letter Book.

--Millis to Eugene Ricksecker, Assistant Engineer, U.S. Army Corps of Engineers, 4 April 1903. MORA Archives, Eugene Ricksecker Letter Book, entry #269.

Mills, Libby. "History of the East Side Development--Ohanapecosh Area." Summer 1907. Mount Rainier National Park Library.

Murphy, James H., Chief Clerk, U.S. Army Corps of Engineers, Seattle, WA, to A. Mackenzie, Brigadier General, U.S. Army Corps of Engineers, Washington, D.C., 9 February 1904. MORA Archives, Eugene Ricksecker Letter Book.

--Murphy to G. F. Allen, Supervisor, Rainier National Forest Reserve, Ashford, WA, 21 October 1904. MORA Archives, Eugene Ricksecker Letter Book.

--Murphy to John Zug, Lieutenant, U.S. Army Corps of Engineers, Nile, WA, 21 October 1904. MORA Archives, Eugene Ricksecker Letter Book.

Nelson, C. L., Acting Superintendent, Mount Rainier National Park. Superintendent's Monthly Report, August 1922. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.

--Superintendent's Monthly Report, September 1922. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.

--Superintendent's Monthly Report, October 1922. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.

Peters, W. H., Superintendent, Mount Rainier National Park. Superintendent's Monthly Report, February 1921. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.

--Superintendent's Monthly Report, September 1921. MORA Archives, Box H2615, Superintendents' Monthly Reports 1920-1923 file.

"Petition of Citizens of Yakima recommending that route be adopted for Mt. Rainier road as suggested by Enumclaw Chamber of Commerce." 1904. MORA Archives, File H14, Road Reports, 1904-06.

Pike, M. J., Project Superintendent, Tahoma Creek Camp, Emergency Conservation Works. "Camp N.P.1, Tahoma, Mt. Rainier National Park, Narrative Report, Fifth Enrollment Period, 1935." Mount Rainier National Park: National Park Service, 1935.

Piper, Oscar A., Inspector, U.S. Army Corps of Engineers, to Eugene Ricksecker, Assistant Engineer, U.S. Army Corps of Engineers, n.d. MORA Archives, Eugene Ricksecker Letter Book.

Polk, C. G., Assistant Highway Engineer, Bureau of Public Roads. "Report on Location Survey (1931) of the Paradise Valley-Alta Vista Road, Mount Rainier National Park Project 7-A, State of Washington, 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

Preston, John C., Superintendent, Mount Rainier National Park. Superintendent's Annual Report, 1947. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file.

--Superintendent's Annual Report, 1948. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file.

--Superintendent's Annual Report, 1951. MORA Archives, Box H2621, Superintendents' Annual Reports 1941-1953 file.

--Superintendent's Monthly Report, April 1948. MORA Archives, Box H2621, Superintendents' Monthly Reports 1947-1952 file.

"Proposed Work in Mount Rainier National Park." MORA Archives, File D22, Construction Program 1912.

Punchard, Charles D., Chief Landscape Engineer, National Park Service, Yellowstone National Park, WY, to Stephen T. Mather, Director, National Park Service, Washington, D.C., 9 June 1919. MORA Archives, Administration files, Charles D. Punchard file.

Reaburn, Dewitt L., Supervisor, Mount Rainier National Park. "Report of Expenditures in Mt. Rainier National Park for Fiscal Year Ending June 30, 1915." National Archives, RG 79 Entry 6 Box 131, Repairs and Improvements Work, File #3.

--Report of the Supervisor of the Mount Rainier National Park to the Secretary of the Interior, 1915. Washington, D.C.: Government Printing Office, 1915.

--Report of the Supervisor of the Mount Rainier National Park to the Secretary of the Interior, 1916. Washington, D.C.: Government Printing Office, 1916.

--"Statement Submitted Pursuant to Section 10 of the Sundry Civil Act Approved August 1, 1914." MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.

--Superintendent's Monthly Report, March 1918. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.

--Superintendent's Monthly Report, April 1918. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.

- Superintendent's Monthly Report, May 1918. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Superintendent's Monthly Report, June 1918. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Supervisor's Annual Report, 1917. MORA Archives, Box H2615, Superintendents' Annual Reports 1917-1925 file.
- Supervisor's Monthly Report, July 1915. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Supervisor's Monthly Report, May 1916. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Supervisor's Monthly Report, August 1916. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Supervisor's Monthly Report, October 1916. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Supervisor's Monthly Report, December 1917. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.
- Reaburn to Secretary of the Interior through Mark Daniels, General Superintendent of the National Parks, San Francisco, CA, 23 August 1915. National Archives, RG 79 Entry 6 Box 131, Repairs and Improvements Work, File #3.

Rensch, H. E. *Mount Rainier: Its Human History Associations*. Berkeley, CA: National Park Service, Field Office of Education, 1935.

Report of the Joint Committee of the Mazama Club and the Sierra Club on the Mt. Rainier National Park. (No place of publication listed). 1905.

Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, C. H. Knight, Captain, Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, J. B. Cavanaugh, Major, Corps of Engineers, U.S.A., in Charge; and, Report Upon Crater Lake National Park: Annual Report of the Chief of Engineers, 1912, Appendixes GGG, HHH and III. Washington, D.C.: Government Printing Office, 1912.

Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, Ernest D. Peek, 1st Lt., Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, Hiram M. Chittenden, Major, Corps of Engineers, U.S.A., in Charge: Annual Report of the Chief of Engineers, 1907, Appendixes JJJ and KKK. Washington, D.C.: Government Printing Office, 1907.

Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, Ernest D. Peek, 1st Lt., Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, Hiram M. Chittenden, Major, Corps of Engineers, U.S.A., in Charge: Annual Report of the Chief of Engineers, 1908, Appendixes JJJ and KKK. Washington, D.C.: Government Printing Office, 1908.

Report Upon the Construction, Repair and Maintenance of Roads in the Yellowstone National Park, Willbur Willing, Captain, Corps of Engineers, U.S.A., in Charge, and Report Upon the Road into Mount Rainier National Park, C. W. Kutz, Major, Corps of Engineers, U.S.A., in Charge: Annual Report of the Chief of Engineers, 1910, Appendixes HHH and III. Washington, D.C.: Government Printing Office, 1910.

Rhodes, H. A., President, Rainier National Park Company, to Stephen T. Mather, Director, National Park Service, 18 May 1927. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

Ricksecker, Eugene V., Assistant Engineer, U.S. Army Corps of Engineers. "Notes on the Construction of Rainier Park Road," n.d. (1911). MORA Archives, Box H14, Road Reports 1907-1913.

--Ricksecker to Hiram M. Chittenden, Major, U.S. Army Corps of Engineers, Seattle, WA, 15 April 1908. MORA Archives, Eugene Ricksecker Letter Book.

--Ricksecker to James R. Garfield, Secretary of the Interior, 18 October 1907. MORA Archives, Eugene Ricksecker Letter Book.

--Ricksecker to John Millis, Major, U.S. Army Corps of Engineers, Seattle, WA, 14 May 1904. Eugene Ricksecker Letter Book, MORA Archives.

"Road to Mount Rainier." Typed MSS. Eugene Ricksecker Letter Book. MORA Archives.

Rust, H. H., et al., Citizens of Enumclaw. "Petition that the Enumclaw route be adopted to Mt. Rainier." 1904. MORA Archives, File H14, Road Reports, 1904-06.

Sheehan, John J., Supervisor, Mount Rainier National Park. Supervisor's Monthly Report, March 1915. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.

--Supervisor's Monthly Report, April 1915. MORA Archives Box H2615, Superintendents' Monthly Reports 1913-1919 file.

Smith, L. E., Commissioner, King County, Washington, to Major John Millis, U.S. Army Corps of Engineers, 1 May 1903. MORA Archives, File H14, Road Reports, 1904-06.

Tacoma Chamber of Commerce to Eugene Ricksecker, Engineer, U.S. Army Corps of Engineers, 30 April 1903. MORA Archives, File H14, Road Reports, 1904-06.

Thompson, Erwin N. *Historic Resource Study: Mount Rainier National Park*. Denver, CO: National Park Service, Denver Service Center, October 1981.

Toll, Roger W., Superintendent, Mount Rainier National Park. Superintendent's Annual Report, 1919. MORA Archives Box H2621, Superintendent's Annual Reports 1917-1925 file.

--Superintendent's Annual Report, 1920. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.

--Superintendent's Monthly Report, June 1920. MORA Archives Box H2615, Superintendents' Monthly Reports 1920-1923 file.

--Superintendent's Monthly Report, November 1920. MORA Archives Box H2615, Superintendents' Monthly Reports 1920-1923 file.

Tomlinson, O. A., Superintendent, Mount Rainier National Park. Superintendent's Annual Report, 1923. MORA Archives Box H2621, Superintendents' Annual Reports 1917-1921 file.

--Superintendent's Annual Report, 1924. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.

--Superintendent's Annual Report, 1925. MORA Archives, Box H2621, Superintendents' Annual Reports 1917-1925 file.

--Superintendent's Annual Report, 1926. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.

--Superintendent's Annual Report, 1927. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.

--Superintendent's Annual Report, 1929. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.

--Superintendent's Annual Report, 1930. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.

--Superintendent's Annual Report, 1931. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.

--Superintendent's Annual Report, 1933. MORA Archives, Box H2621, Superintendents' Annual Reports 1933-1935 file.

--Superintendent's Annual Report, 1934. MORA Archives, Box H2615, Superintendents' Annual Reports 1933-1935 file.

- Superintendent's Annual Report, 1935. MORA Archives, Box H2621, Superintendents' Annual Reports 1933-1935 file.
- Superintendent's Monthly Report, June 1924. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, August 1924. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, September 1924. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, July 1925. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, September 1925. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, January 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, February 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, March 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, April 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, May 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, June 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, September 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, October 1926. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, March 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, April 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.

- Superintendent's Monthly Report, June 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, July 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, August 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, September 1927. MORA Archives, Box H2615, Superintendents' Monthly Reports 1924-1927 file.
- Superintendent's Monthly Report, June 1928. MORA Archives, Box H2615, Superintendents' Monthly Reports 1927-1931 file.
- Superintendent's Monthly Report, July 1930. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
- Superintendent's Monthly Report, September 1930. MORA Archives, Box H2621, Superintendents' Annual Reports 1926-1932 file.
- Superintendent's Monthly Report, October 1930. MORA Archives, Box H2615, Superintendents' Monthly Reports 1928-1931 file.
- Superintendent's Monthly Report, June 1931. MORA Archives, Box H2615, Superintendents' Monthly Reports 1928-1931 file.
- Superintendent's Monthly Report, October 1932. MORA Archives, Box H2615, Superintendents' Monthly Reports 1932-1935 file.
- Superintendent's Monthly Report, April 1933. MORA Archives, Box H2615, Superintendents' Monthly Reports 1932-1935 file.
- Superintendent's Monthly Report, October 1934. MORA Archives, Box H2615, Superintendents' Monthly Reports 1932-1935 file.
- Superintendent's Monthly Report, November 1936. MORA Archives, Box H2615, Superintendents' Monthly Reports 1936-1939 file.
- Superintendent's Monthly Report, October 1937. MORA Archives, Box H2615, Superintendents' Monthly Reports 1936-1939 file.
- Tomlinson to Horace M. Albright, Director, National Park Service, 31 August 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.
- Tomlinson to Ed Anderson, Associated Press, 8 April 1929. MORA Archives, Superintendent's Personal Correspondence files.

--Tomlinson to D. R. Hull, Chief Landscape Engineer, National Park Service, Los Angeles, CA, 20 February 1926. National Archives, RG 79 Entry 22 Box 18.

--Tomlinson to Stephen T. Mather, Director, National Park Service, 28 August 1924. MORA Archives, File D22, Construction Program 1924.

--Tomlinson to Stephen T. Mather, Director, National Park Service, Telegram, 16 October 1925. MORA Archives, File D22, Construction Program 1925.

--Tomlinson to Stephen T. Mather, Director, National Park Service, 10 October 1928. National Archives, RG 79 Entry 29 File 630, Roads.

Vint, Thomas C., Chief Landscape Engineer, National Park Service, to Horace M. Albright, Director, National Park Service, 2 February 1931. MORA Archives, File D30, Roads and Trails, Paradise Scenic Road 1920-1930s.

Waterhouse, R. D., Resident Engineer, Mount Rainier National Park. "Report on Construction Activities in Mount Rainier National Park, Calendar Year 1928." MORA Archives, File H14, E.C.W. 1928-29.

Whitney, Stephen. *The Audobon Society Nature Guides: Western Forests*. New York: Alfred A. Knopf, 1985.

Williams, John H. *The Mountain that was God*. New York: G.P. Putnam's Sons, 1911.

Wood, W. S., Federal Highway Projects Engineer, Portland, OR to G. T. Markich, Bridge Engineer, Washington Department of Highways, Olympia, WA, 2 July 1965. MORA Archives, Box D30, Bridges (General) file.

HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

HAER
WASH
27-LONG.V
16-

NISQUALLY ROAD
(Government Road)
Mount Rainier National Park
Between Longmire and Paradise
Longmire VIC.
Pierce County
Washington

HAER No. WA-119

Jet Lowe, photographer, summer 1992

WA-119-1 NISQUALLY ENTRANCE WITH RUSTIC PORTAL, FACING EAST
WA-119-2 RICKSECKER POINT ONE-WAY ROAD WITH MOUNT RAINIER IN
BACKGROUND, VIEW FACING NORTHEAST

LOWE
HAER - K 90

MT. RAINIER
NATIONAL PARK



SPEED
20

HAER No. WA-119-1

W. H. HARRIS
MAY 1919



HARRIS NO. WA. 119-2