



"A Wonderful Piece of Engineering": The Point of Rocks Segment of the Mullan Road and the Milwaukee Road Railroad in Mineral Country, Montana

Author(s): Jon Axline

Source: *IA. The Journal of the Society for Industrial Archeology*, 2011, Vol. 37, No. 1/2, THEME ISSUE: IA in MONTANA (2011), pp. 29-42

Published by: Society for Industrial Archeology

Stable URL: <https://www.jstor.org/stable/23757907>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Society for Industrial Archeology is collaborating with JSTOR to digitize, preserve and extend access to *IA. The Journal of the Society for Industrial Archeology*

“A Wonderful Piece of Engineering”: The Point of Rocks Segment of the Mullan Road and the Milwaukee Road Railroad in Mineral County, Montana

Jon Axline

Abstract

Good roads were critical to the development of Montana in the late nineteenth century. Of the many roads built at that time only one was constructed according to the engineering principles¹ of the day—the Mullan Road connecting Walla Walla, Washington and Fort Benton, Montana. When John Mullan completed construction of the 624-mi. road in 1860, it played a significant role in Montana’s development. Segments of the Mullan Road survive and coexist with later roads and railroads. The contrast between it and the adjacent Milwaukee Road railroad in Mineral County, Montana provides a window into the road-building techniques of the time.

Getting from here to there is a basic human need, but getting there was sometimes arduous, especially in mid-nineteenth century Montana. In the past, as it is today, geography dictated travel routes, and roads tend to take the path of least resistance. Nevertheless, until the advent of the railroad, overland transportation was the slowest and most costly way for humans to get from one place to another. Long-distance travel, whether for people or for goods, was more efficiently accomplished on water. As a consequence, settlement and development of the newly independent United States of America were largely concentrated along coasts and navigable rivers. As the new nation tried to lay claim to vast inland

regions, major rivers, like the Missouri and the Columbia, provided avenues of travel. Access to areas distant from those rivers remained inaccessible to all but an intrepid few.² Yet the need existed for improved overland routes, and enterprising individuals found means to make those improvements, rudimentary as they were by modern standards.

By the time prospectors discovered gold in Montana at Grasshopper Creek in 1862, an ancient network of aboriginal trails crisscrossed the region. When the first prospectors arrived in Montana, however, an engineered wagon road already existed in the territory, the Mullan Military Road. Constructed two years before the 1862 Montana gold rush, the road wound its way 624 miles through the wilderness from Fort Walla Walla near the Columbia River in southeastern Washington, across the Idaho panhandle and through western Montana, to Fort Benton on the upper Missouri River. Lieutenant John Mullan built the road to expedite the movement of troops and supplies from the head of navigation on the Missouri River to the Pacific Northwest, but parts of it soon became a freight and emigrant trail that was critical to the early development of Montana Territory. Fortunately for twenty-first century historians and industrial archeologists, pieces of the Mullan Road still exist, including the Point of Rocks segment along the Clark Fork River in Mineral County, Montana. (figure 1)

The Point of Rocks area is an important location for analyzing the requirements that different modes of land-based transportation had in negotiating difficult terrain, and the changing technical capabilities of those different modes over time. Within a relatively small area, we have a surviving segment of the Mullan Road, the right-of-way of the Chicago, Milwaukee, St. Paul and Pacific Railroad (known as the Milwaukee Road), and the present alignment of Interstate 90. This article

Jon Axline, “A Wonderful Piece of Engineering’: The Point of Rocks Segment of the Mullan Road and the Milwaukee Road Railroad in Mineral County, Montana,” *IA: The Journal of the Society for Industrial Archeology* 37, nos. 1 & 2 (2011): 29–41

© 2014 by the Society for Industrial Archeology. All rights reserved. Please direct all requests for permission to photocopy or reproduce article content through the Society for Industrial Archeology’s website: www.sia-web.org/ia-journal/siaia.html.



Figure 1. The Mullan Road was the first engineered road built in Montana. The 624-mi. road connected Walla Walla, Washington and Fort Benton, Montana. The Point of Rocks segment of the road in Mineral County, Montana (*left*) is well documented in the historic record. Photo by Jon Axline.

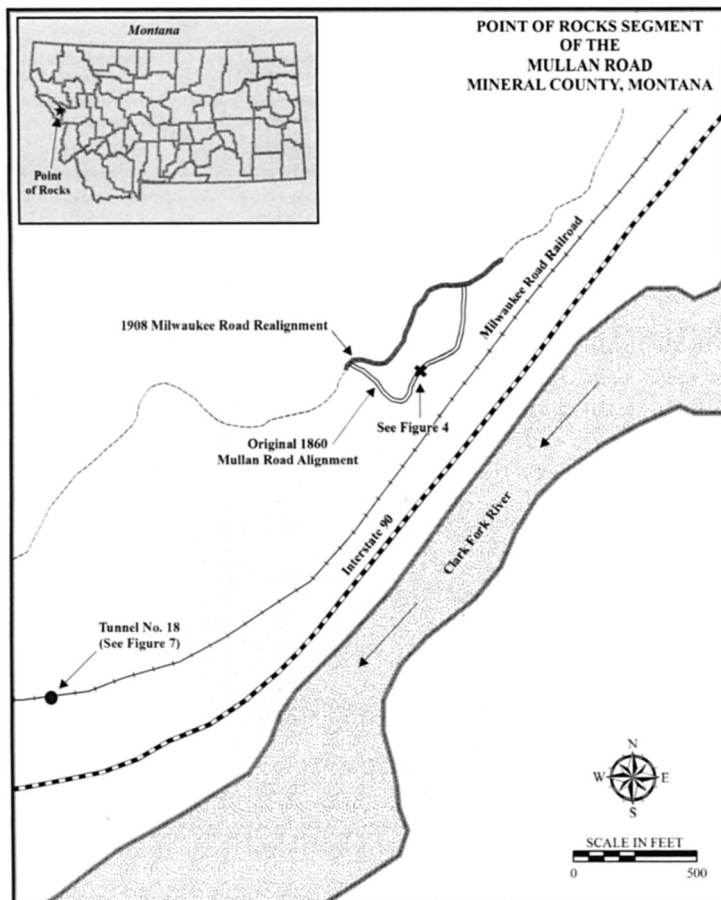


Figure 2. Map showing alignments of Mullan Road, Milwaukee Road, and Interstate 90 and their relationship to the Clark Fork River in western Montana. Map by Lynn Peterson.

describes their physical remains and how their proximity to each other helps to illustrate the evolving engineering of land-based transportation systems. (figure 2)

Construction of the Mullan Road

The idea of a wagon road between the head of navigation on the Missouri River and the Pacific Northwest had its genesis in the winter of 1853, when Washington territorial governor, Isaac Stevens, instructed Lieutenant John Mullan to seek "routes practicable for a . . . wagon road" across the northern Rocky Mountains. In 1853, Congress directed Stevens to survey routes for a northern transcontinental railroad. For the next two years, Stevens and his survey parties, including John Mullan, investigated the Pacific Northwest and northern Rocky Mountains searching for a route for the railroad. Although a strong promoter of the idea of the railroad as a transmitter of civilization, Mullan was just as sure of the civilizing benefits of an engineered wagon road to expedite the march of civilization.³

Born in Norfolk, Virginia in July 1830, President James K. Polk appointed Annapolis, Maryland resident, John Mullan, to West Point in 1848. After graduating from the academy in 1852, the US Army assigned Lieutenant Mullan to the top-

ographical engineers and detailed the young officer to assist Stevens in the northern transcontinental railroad surveys. Over the next two years, however, Mullan spent as much time locating a wagon road as he did looking for the route of a railroad. His presence in the Pacific Northwest coincided with a period of Native American conflict in Washington Territory and tensions between the United States and Great Britain over the ownership of the San Juan islands in Puget Sound. His conviction about the power of a good road dovetailed nicely with the U.S. Army's plan for the construction of a military road between Nebraska and the Pacific Northwest.⁴

Captain Andrew Humphreys of the U.S. Army's Office of Exploration and Surveys ordered Mullan to construct the road across the northern Rocky Mountains in March 1858 shortly after he returned to the Pacific Northwest after two years fighting the Seminole Indians in Florida. Work on the road, however, was delayed by an uprising of the Coeur d'Alene, Spokane, and Palouse tribes who were angry at the continued incursion of Euro-American miners into their eastern Washington hunting grounds and because, they believed, the proposed military road would only aggravate an already bad situation for them. Mullan commanded a contingent of Nez Perce scouts at the decisive Battle of Four Lakes in the summer of 1858. It wasn't until March 3, 1859, that Congressman Isaac Stevens and John Mullan successfully petitioned Congress for \$100,000 to finance the construction of the 624-mi. road between Walla Walla and Fort Benton, a steamboat port on the upper Missouri River.⁵

Colonel George Wright described Mullan as having a "large, firmly molded mouth . . . straight nose . . . deep blue eyes . . . and an unusually broad and high perpendicular forehead crowned with very dark, thick hair disposed to curl at the end." Others portrayed him as having a warm, cheerful nature, and plenty of courage, but was rather on the short side. (figure 3) With regard to his determination to build a wagon road between the headwaters of the Columbia and Missouri rivers, Wright later called Mullan a monomaniac who "imagines everybody who is not in favor of his road to be against it." The conflict with the Indians in eastern Washington in 1855-1856 and 1858 and the continued stand-off between the United States and Great Britain over the San Juan islands in Puget Sound vindicated Stevens' and Mullan's argument for the establishment of a military road to expedite the movement of troops and supplies from Fort Benton to eastern Washington in the event of

further conflict with the Pacific Northwest's aboriginal inhabitants.⁶

Work on the wagon road began on July 1, 1859, when Mullan's 230-man detachment (including forty soldiers) left Fort Walla Walla for the Cataldo Mission in the Idaho panhandle twenty miles east of Lake Coeur d'Alene. Mullan attempted to use existing aboriginal trails as much as possible, but the difficult terrain in northern Idaho made construction of new road segments a necessity. Because of the slow work of road building across the rugged Idaho panhandle and the Bitterroot Mountains, the expedition did not cross over the divide into Montana until early December 1859. Harsh weather conditions soon forced construction to cease for the season and Mullan established an encampment, Cantonment Jordan, in the St. Regis DeBorgia Valley near present Henderson, Montana, on December 5th. By that time, Mullan's work crews had completed a little less than half of the road.⁷

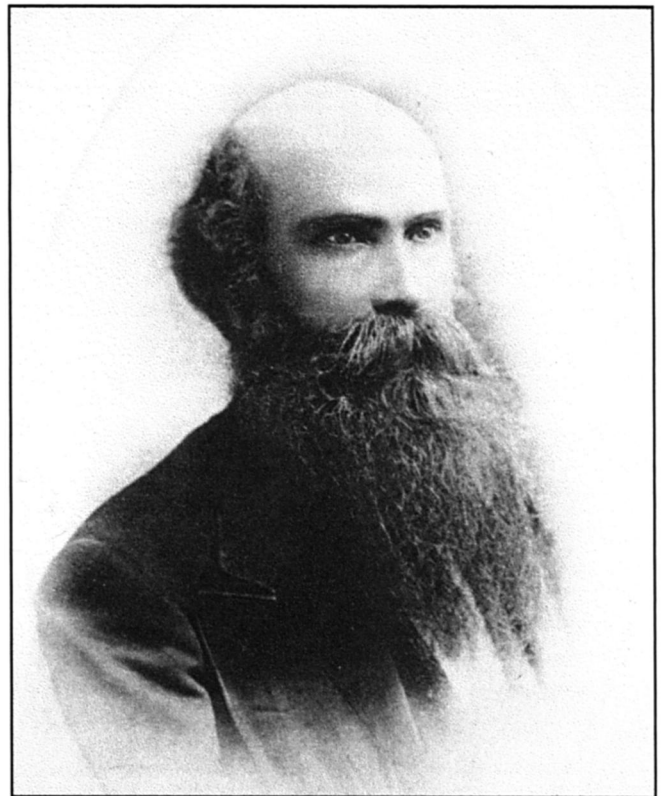


Figure 3. Some of John Mullan's intensity is revealed in this photograph of him late in life. Montana Historical Society Photograph Archives 944-034.

After a particularly severe winter, Mullan resumed work on the road in mid-March 1860. Within a month, the company reached a series of mountain spurs that extended down to the edge of the Clark Fork River, making a road along the riverbank impossible. Mullan later stated that "in order to obtain the practicable elevation on account of the abrupt rocky face of the spurs, I carried the line up a ravine, until gaining 1,000 feet; I wound around the mountain sides, making the re-entering angles by gentle curves, until the entire six miles was completed."⁸

Mullan called these segments the "Big Side Cut" and "Point of Rocks" in his 1863 report to Congress. The Big Side Cut hugs the Bitterroot Mountains about 1,000 feet above the Clark Fork for a distance of six miles. Initially, Mullan called it "Big Mountain," but by 1865 he referred to it as the Big Side Cut. The Point of Rocks is a prominent feature along the river. It consists of a Madison Limestone outcrop that extends into the river.

Both obstacles compelled Mullan to seek alternative routes that avoided the time-consuming and costly process of building a road on the riverbank. He detailed 150 men to work on the six-mile detour across the mountain sides. Construction on the segments began on May 1, 1860, and continued for the next six weeks. The work crew used black powder to blast passages through some of the rock outcrops in order to maintain Mullan's "gentle curves." A premature explosion in one rock cut in the Big Side Cut partially blinded one man and stunned another. This arduous segment of the road proved the most difficult to construct along the entire route of the Mullan Road for the small work detail.

Although Mullan later claimed in his report that the cuts along this segment of the road were between fifteen to twenty feet wide, the rock cuts, in fact, average about fourteen feet in width, just barely wide enough to accommodate a military wagon. Randall Hewitt reported in 1862 that "not an inch more rock was removed than apparently necessary" and some cuts were so narrow that one could not walk next to a wagon passing through them. In 2003, the author measured the Mullan-era cuts on the Point of Rocks segment. The widest was fourteen feet; the narrowest, seven feet in width. The army wagons of the time were five feet in width. Hewitt's statement in 1862 was true for at least some of Mullan's road cuts.⁹ (figure 4)

The Point of Rocks segment is still intact and indications of how the road was constructed are still very much in

evidence. Much of the segment was constructed through the Precambrian mudstones through which the Clark Fork River courses. Mullan attempted to avoid as many of the rock outcrops as possible, so the road winds through the rocks rather than following a straight alignment. The rock cuts are from ten to fifteen feet across with barely room for wagons. Mullan's crews used rock removed from the cuts as fill in other sections of the road.

Milwaukee Road Railroad crews cut off segments of the Mullan Road in 1908. The Milwaukee Road tracks parallel and sometimes intersect the Mullan Road, which required the railroad's contractor to build new wagon road segments to keep the older route open to traffic. Because of that, it is possible to compare and contrast different construction methods and the different methods used to place fill. Rock fill in Milwaukee-built sections exhibit formally constructed fill, sometimes with carefully placed stone retaining walls. The Mullan Road fill is irregular, as if just haphazardly thrown off to the sides of the road. Because Mullan had to reach Fort Benton by August 1, 1860, the initial construction of the road was quickly done with little attention paid to aesthetics. Both aerial and ground observations also show that Mullan rerouted sections of the road between 1860 and 1862 when he improved alignments and grades. The original Mullan Road alignments, however, could only be observed after a forest fire swept through the



Figure 4. Mullan detailed a 150-man crew to carve the Point of Rocks and Big Side Cut sections of the wagon road from the mountainside above the Clark Fork River. Although Mullan claimed in 1863 that all the cuts were fifteen to twenty feet in width, some, like this one, were much narrower. This cut is seven feet wide. Photo by Jon Axline.

Point of Rocks in August 2005. Other features associated with the original Mullan Road construction include a holding pond constructed to provide water for stock and evidence of a campsite mentioned in his 1865 *Miners and Travelers' Guide*.¹⁰

Eastward from the Point of Rocks, construction of the road progressed rapidly as Mullan utilized well-worn aboriginal trails. By July 1, his workers had crossed the Blackfoot River near present-day Missoula, reaching the Dearborn River north of Helena twelve days later. The expedition arrived in Fort Benton on August 1, 1860, the deadline set for it by Mullan's superior officers. Upon their arrival they were met by a detachment of First Dragoons under the command of Major George Blake, which had disembarked from the steamers *Chippewa* and *Key West* on July 2. The U.S. Army had detailed Blake to travel over the newly completed road to Fort Walla Walla. Accordingly, Mullan organized a second work party to backtrack over the road in advance of the troops to repair flood-damaged bridges and improve the roadway.¹¹

Mullan's Continued Engagement with the Road

The 292-man military contingent left Fort Benton for Fort Walla Walla on August 5, 1860. With Mullan's 25-man crew working in advance of the expedition, the

troops traversed the road to Walla Walla in fifty-seven days. Lieutenant August Kautz, a West Point schoolmate of Mullan's, later described the "Point of Rocks" segment: "Our road lay back from the river over a spur for three miles, when we came upon the river again. There were three or four difficult hills for the oxen." The Blake Expedition proved to be the only instance in which the military used the road for the purpose in which it was intended: to make possible the movement of troops between the head of navigation on the Missouri River to the Pacific Northwest.¹² (figure 5)

Despite Mullan's best efforts to maintain and improve his road, by the mid-1860s the western section of the road had rapidly deteriorated from disuse and difficult weather conditions. Historian Alton B. Oviatt wrote:

[M]ost of those who made the journey via the Mullan Road did so by virtue of necessity or misguided selection—not by choice. It had been constructed, primarily, as a military precaution, with inadequate appropriations, time and equipment. Consequently, the line of least resistance had to be followed at all times. Work was done only where nature steadfastly refused to yield passage without human stimulation, and then, only grudgingly.¹³

Within a year of its completion in August 1860, adverse weather conditions and spring run-off in 1861 destroyed most of the forty-seven log bridges Mullan's men had constructed on the St. Regis River the year before.¹⁴



Figure 5. The Mullan Road is located on the hillside above the Clark Fork, I-90, and the old Milwaukee Road Railroad grade. General William Tecumseh Sherman wrote that this section of the road was "tolerably good."
Photo by Jon Axline.

Mullan continued to make improvements to his road until 1862, when the federal government withdrew financial support because of the more immediate demands of the Civil War. That year, newly appointed judge, Christopher C. Hewitt, led a party from Fort Hall, Montana, to Spokane, Washington, over the Mullan Road west of the Continental Divide. His nephew, Randall Hewitt, published his own account of the journey in 1906. In it, he described the Point of Rocks segment:

Soon after our march began this morning [September 10, 1862] the trail passed through a strip of pine forest and over a smooth level road until the foot of the mountains was reached; then we entered the Bitter Root range in earnest, and the road led a very winding zigzag course, rough, rocky and in places exceedingly steep. The spurs and peaks of the mountains were thrown up in the utmost confusion, and it seemed as though the trail avoided none of them.¹⁵

The Point of Rocks was a preview of the more difficult Big Side Cut segment the party reached the following day. That ordeal took nearly a week to traverse. Echoing other travelers' sentiments, Hewitt concluded that, if later asked the way across the mountains, he would answer, "Take either road and before you are half way through you'll wish you had taken the other. It was hilly and rough; it was abominable . . ." Within just a few years of Mullan's engineering feat through the rugged mountains of western Montana, the segment west of Missoula had deteriorated until it was suitable only for pack trains. While the road was never again used in a military capacity, it did become an important trail for pack stock, carrying supplies between Portland, Oregon, and the Missoula and Bitterroot valleys in western Montana.¹⁶

When Mullan left Montana in 1862, his enthusiasm for his road had not abated. He went east in 1863, submitted his report to Congress, and got married. For unknown reasons, in July 1863 he resigned his commission in the U.S. Army and returned west with his new bride. They settled on a homestead near Walla Walla that he had acquired earlier in the decade. Mullan was a much better military officer and road builder than a farmer—he lost the homestead within a couple years. For a short time, he had a contract to deliver mail between California and Idaho but went bankrupt in that endeavor.

Mullan published a travelers' guide to his road in 1865. Largely excerpted from his congressional report, the guide praised the beauty and advantages of the territory

through which the road passed. In 1867, he relocated to San Francisco and opened a law office, specializing in land law. Although an unsuccessful farmer and postman, he prospered in his law practice. Eleven years later, he relocated his practice and his family to Washington, DC. On September 8, 1883, he was an honored guest at the Northern Pacific Railway's last spike ceremony at Gold Creek, Montana.¹⁷

Mullan played a significant role in the railroad surveys in the Pacific Northwest and northern Rocky Mountains regions. The railroad followed his advice that the line not follow the route he had blazed for his road over the Bitterroot Mountains and, instead, took a much easier route over the mountains to the north. The railroad did, however, follow much of his wagon road east of Missoula, over Mullan Pass to the Prickly Pear Valley. Mullan made two more trips west after the last spike ceremony, both on the Northern Pacific Railway. He suffered a stroke in 1905 and retired from his law practice; he died in December 1909.

Mullan's Legacy

While some historians have concluded that the Mullan Road was a failure because it never functioned in the way Mullan intended, others have concluded just the opposite. It may not have fulfilled his dream of facilitating the settlement of the Pacific Northwest and northern Rockies as a whole, but portions of it did serve that function, enabling the transportation of military supplies and facilitating the settlement of the northern Rockies and Pacific Northwest. The Montana gold camps, for example, depended on the Mullan Road for supplies from Fort Benton. Today, Interstate 90 closely parallels the Mullan Road in western Montana and northern Idaho. Highways 12 and 87 in western and central Montana also parallel the route blazed by Mullan in 1860.¹⁸

After 1864, civilian freighters and immigrants extensively used the Fort Benton to Helena and Missoula sections of the Mullan Road, but the segment west of Missoula (at the Point of Rocks) was, according to one historian, "no more than a pack trail." The rugged western section of the Mullan Road was nearly impassable for wagons, but was perfectly suitable to pack mules and an occasional camel train. In the summer and fall of 1865, after prospectors discovered gold on the Little and Big Blackfoot rivers, Frank H. Woody reported that the road "was

literally lined with men and animals on their way to the new El Dorado” from Oregon and Washington. While private individuals or companies “adopted” segments of the road between Fort Benton and Missoula and maintained them as toll facilities, there is no evidence of that occurring west of Missoula. The road’s rough nature precluded its large-scale use by freight trains and confined it primarily to pack animals.

Eventually, the road’s unsuitability as a commercial transportation route made it impossible for traders in Oregon to compete with the Utah companies seeking to supply Montana’s mining camps, thereby sealing the fate of the western 400 miles of the Mullan Road. Although 750 tons of pack-train-borne freight reached Helena over the Mullan Road from the Columbia River in 1865, it was not profitable enough for Portland merchants, who established alternate routes to the Montana gold camps by 1869.¹⁹

General William Tecumseh Sherman conducted an inspection of Montana Territory during the Nez Perce War in the summer of 1877. After visiting Yellowstone National Park and Forts Ellis and Shaw, Sherman endeavored to travel to Walla Walla over the Mullan Road. He felt that it was in the best interests of the United States to develop a closer relationship between the people of Montana and the Pacific Northwest, particularly Oregon. Sherman’s march to the Pacific Ocean was a fact-finding mission and tour rather than a military expedition. It was purely coincidental that it occurred during the Nez Perce War. Although he initially planned to traverse the road on horseback with a pack train, Sherman decided in early September 1877 to attempt the journey with wagons. His plan was to prove that the road still had potential as a major freight, immigrant, and stagecoach route. Sherman was fully aware that the road west of Missoula was obstructed by fallen timber and wash-outs, with none of the original bridges remaining. Local residents supported Sherman’s plans, albeit pessimistically, to reopen the western section of the road. Sherman looked forward to this leg of his journey, boasting that the poor condition of the road west of Missoula would add “zest” to an already eventful journey.²⁰

On September 5, 1877, Sherman, his Aide-de-Camp Colonel Orlando Metcalfe Poe, and a fifty-eight-man escort from the First Cavalry Regiment set out from French-

town for Walla Walla. The expedition included five wagons, six soldiers convalescing from wounds received fighting the Nez Perce at the Battle of the Big Hole the previous month, two dozen axes, and a dozen picks and shovels. The first twelve miles of the road was relatively easy to navigate, but became substantially more difficult by the time they reached the Point of Rocks. In a characteristic understatement, Sherman later reported that, with the exception of two heavy grades, the road was “plain, comparatively good, needing little repairs to make it practicable.” Colonel Poe, however, disagreed. He wrote that, beginning at the Point of Rocks segment, the road was “very bad” as it ascended up the side of the mountain, forcing the soldiers to double-team the wagons. The descent was even worse as they then had to rope the wagons to trees adjacent to the road and lower them down the mountainside. After fifteen days of hard work clearing the road in western Montana and 250 miles, the expedition reached Walla Walla.²¹

Both Sherman and Poe, who was a professional engineer, recognized the potential value of the road and the talent of its builder, John Mullan. On September 30, 1877, Poe wrote:

Often, during that portion of the route, we remarked upon the pluck, the energy, the endurance, and the executive ability of Captain Mullan, who first made the road through the wilderness, and our admiration of the feat has not lessened by ascertaining from his report that it was done at a cost which amounted to only \$230,000 for the entire distance from Walla Walla to Fort Benton. Its inception was creditable, and its execution worthy of any man’s ambition. That it did not wholly fulfill the anticipations of its projector does not detract in the least from the credit due him.

They also praised Mullan’s foresight to sow grasses adjacent to the road to provide pasturage to livestock on the trail. Both men believed that, had it not been for the Civil War, the road would have become a major thoroughfare between Missoula and eastern Washington.²²

Despite the abysmal condition of the Mullan Road west of Missoula, both Sherman and Poe were convinced of the road’s practicality for light wagons and its importance in opening Montana Territory to trade from Oregon-based entrepreneurs. Eventually, in 1879, Sherman convinced the War Department to allocate \$20,000 for the repair of the Mullan Road. Two military detachments worked east from Coeur d’Alene while another worked west from Fort Missoula. The soldiers cleared

the road sufficiently so that “lightly laden vehicles could once more negotiate this portion of the old trail.” Unfortunately, the repairs to the western section failed to reinvigorate it as a major transportation route.²³

The fact that the Mullan Road was an important thoroughfare in Montana, compelled territorial legislators in 1869 to declare the route a public road. Maintenance of the road then fell to the counties it crossed, including Missoula County in western Montana. The County maintained the Point of Rocks segment as a public thoroughfare until 1914 when it was taken over by newly created Mineral County. That same year, the Yellowstone Trail Association identified the road as a component of its proposed coast-to-coast highway. An inter-connected series of county and state roads, the Yellowstone Trail was a 4,000-mile interstate “tourist” highway that connected Plymouth Rock, Massachusetts, and Seattle, Washington. The Yellowstone Trail Association encouraged annual “Trail Days” when local citizens from communities along the highway volunteered their time to fill potholes and re-grade sections of the trail. Like many other counties, Mineral County likely conducted its “Trail Days” which would, conceivably, have included the Point of Rocks. The Montana Highway Commission included the route as part of the state’s first Federal-Aid system in 1916. Mineral County circumvented the old road in 1917 with the construction of the highway (the future U.S. Highway 10) on a alignment on the opposite side of the Clark Fork River. The old Point of Rocks segment continued to function as a postal route between Alberton and Cyr for a number of years afterwards and was likely only minimally maintained.²⁴

Much of the Mullan Road still exists and is easily evident both from ground observations and aerial photography. Modern highways parallel much of the general route of the road today. Long segments of the road now function as county-maintained or Forest Service roads in Mineral, Granite, and Powell counties. “Mullan Road” in Missoula now functions as a primary state-maintained artery. The highway is sitting on the route of the old road where it crossed the Missoula Valley. Long-abandoned segments of the road are visible over Mullan Pass, in Lewis and Clark County between the pass and Prickly Pear (Wolf Creek) Canyon. North of Helena and Fort Benton, the road became known as the Benton Road after 1864, a significant freighting and stagecoach connection between Fort Benton and the territorial capital of Helena. Long segments of the road are visible on aerial photographs as it crosses private land in Lewis and Clark, Cascade, and

Chouteau counties. Despite all those survivals, less than a dozen miles of this historically significant road have been formally recorded and evaluated for eligibility to the National Register of Historic Places. Two segments, one in Cascade County and the Point of Rocks in Mineral County, are listed in the National Register. Like many of Montana’s old roads, historians and dedicated Mullan Road enthusiasts have followed much of the route’s length in Montana, but have not taken the time to formally inventory it or use Global Positioning System technology to map it. (figure 6)

Construction of the Milwaukee Road

Organized in 1874, the Chicago, Milwaukee, St. Paul & Pacific Railroad developed as an important regional carrier operating in the states of the upper Midwest. At the turn of the twentieth century, Milwaukee Road executives believed their company needed to extend its lines to Puget Sound if the railroad was to survive competition with other major regional railroads that provided service to the Pacific. In 1905 and 1906, to construct its transcontinental line, the Milwaukee Road incorporated subsidiaries in each of the states it would cross, including Montana. Because of the importance of the Clark Fork as a way through the Rocky Mountains, the Milwaukee Road’s new line would follow the river and the route of its competitor, the Northern Pacific Railway, through western Montana from Garrison, at the mouth of the Little Blackfoot River, downstream to the mouth of the St. Regis River. Construction of the line between Butte, Montana, and Avery, Idaho, began in August 1908 and was completed the following year. A principal contractor and several subcontractors laid track and constructed numerous bridges and tunnels along the route. To maintain a maximum two percent grade along the Clark Fork and St. Regis rivers, the railroad required substantial cut and fill sections, three tunnels, and several commanding steel bridges across rivers, streams, and ravines. Tunnel No. 18 allowed the Milwaukee Road’s alignment through the Point of Rocks to maintain the mandated two percent grade. (figure 7) When completed, the 80-mile segment between Alberton, Montana, and the top of the Bitterroot Mountains, along the Montana/Idaho border, was among the most scenic along the Milwaukee Road’s entire westward extension.²⁵

In 1908, when the Milwaukee Road was building its transcontinental line through western Montana, it realigned a 250-foot section of the Point of Rocks seg-

Figure 6. The Point of Rocks Segment is one of the best-documented sections of the Mullan Road. It is one of the few in the state that has been recorded using GPS and is also well illuminated with interpretive markers.

The segment is owned by the Montana Department of Transportation and currently functions as an unimproved hiking trail.

Photo by Jon Axline.

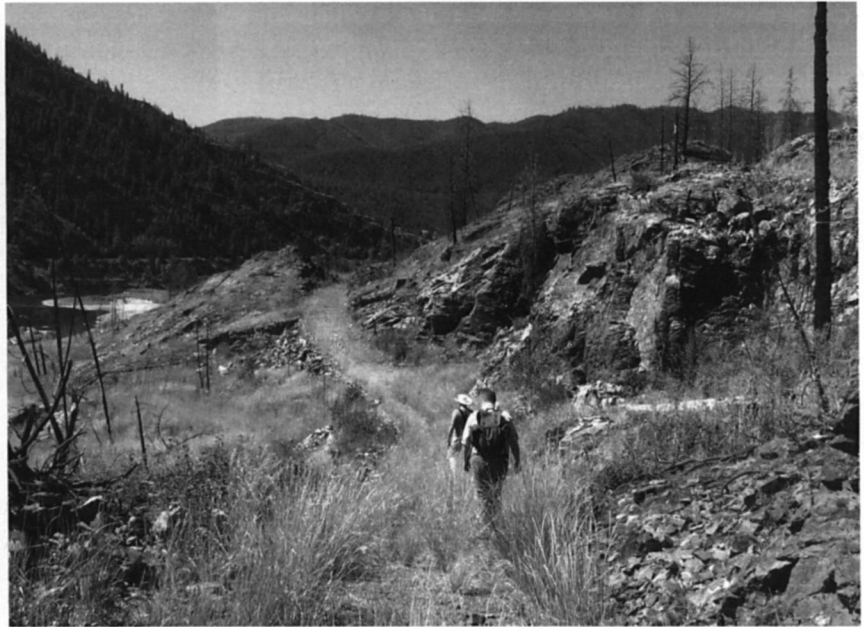
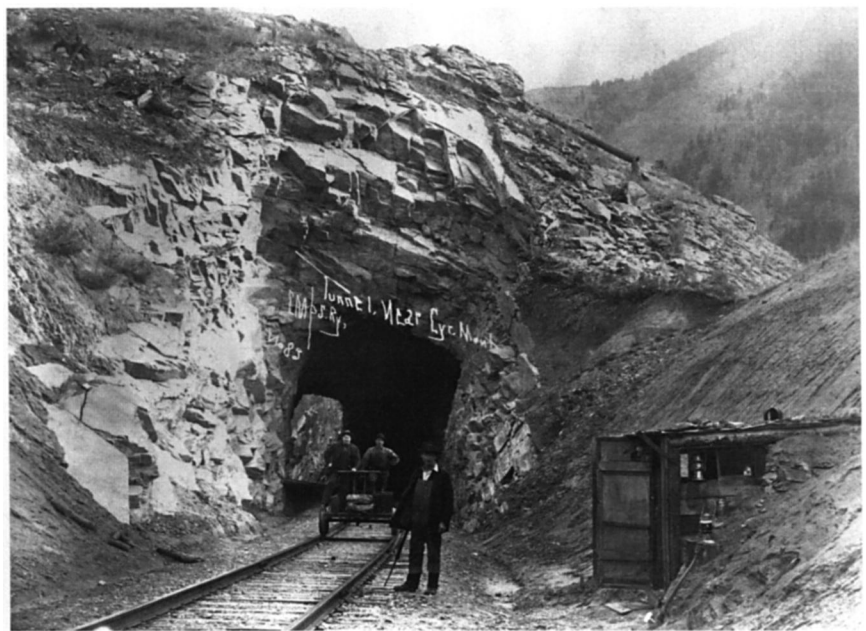


Figure 7. The Milwaukee Road Railroad constructed its line through Mineral County in 1908. Tunnel 18 is the eighteenth tunnel on the line from where the railroad entered the state in eastern Montana. For many years, it was the only tunnel owned by the Montana Department of Transportation. The August 2005 forest fire, however, significantly damaged the tunnel; access to it has been closed. Montana Historical Society Photo Archives, Tunnel near Cyr, Mont., C.M. P.S. Ry No. 83, c. 1910, PAC 2005-45.



ment of Mullan Road to avoid conflicts with the railroad's tracks. The proposed railroad, however, cut off short portions of the Mullan Road's Point of Rocks segment. Because the old road was a postal "star" route, railroad construction crews built new segments of road to keep the mail delivery route open. Fortunately, the 1908 realignment preserved the circumvented portions of the Mullan Road in pristine condition. The Milwaukee Road's construction of new road to keep the postal

route open also included black powder-blasted rock cuts and fieldstone retaining walls to maintain the general fourteen-foot width of the older route.²⁶ (figure 8)

The Milwaukee initiated freight and passenger traffic on its western extension in 1909. Two years later, the railroad's famed *Olympian* and *Columbian* passenger trains began service between Chicago and Seattle. After the section was electrified in 1914, it became a much



Figure 8. In 1908, the Milwaukee Road cut off sections of the old Mullan Road, which was then functioning as a postal Star route. In order to keep the road open, the railroad built segments of new road that connected with the old wagon road. Like the road-builders nearly fifty years before, railroad crews used black powder to construct the new segments. Photo by Jon Axline.

smoother and smoke-free ride than that offered by the steam locomotives. Indeed, for a small fee, passengers on the *Olympian* could ride in an open observation car attached to the rear of the train.

By far the ultimate in mid-twentieth century passenger trains was the Milwaukee's *Olympian Hiawatha*. Developed by Milwaukee Road engineers in the 1930s, the streamlined art deco-style steam locomotives were among the fastest in the world. The passenger cars were designed for comfort, incorporating the latest technology to make the rides smoother, quieter, and more comfortable than ever before. The distinctive maroon and gold color scheme of the trains was a common sight to local residents from 1947 to 1961 as the Hiawatha trains cruised through the rugged mountains of western Montana at speeds up to seventy miles per hour.²⁷

Even after the county relocated the Yellowstone Trail to the south side of the Clark Fork in 1917, the Point of Rocks part of the Mullan Road continued to function as a county road and a "star" postal route for local residents. In 1931, the federal Bureau of Public Roads (BPR) realigned U.S. Highway 10—still unpaved—back to the north side of the river below the Mullan Road segment and the Milwaukee Road. In October 1934, the BPR's Emergency Forest Highway Project (FHEC-8-A6)

reconstructed and paved a ten-mile section of Highway 10 between Alberton and Cyr. It was not until the early 1960s that access to the Mullan Road's Point of Rocks piece finally ended when the Montana Department of Transportation (MDT) established a gravel pit at its eastern end. With that development, in 1963 when the last family it served had departed the area, the county abandoned the Point of Rocks segment of the Mullan Road as a public road.²⁸

The Milwaukee Road was the third and last transcontinental railroad to cross Montana. The railroad platted over thirty new towns along its line in Montana, including nearby Alberton in 1908. Named for railroad president, Albert J. Earling, Alberton was the division point for the Milwaukee's Missoula Division. In 1914, the railroad electrified the line between Harlowton and Avery, Idaho, making it one of the largest electrified railways in the United States.

Established primarily to haul freight, the Milwaukee Road faced declining revenues throughout much of its history in Montana. Competition from the Northern Pacific and Great Northern railroads, along with cyclical drought and two economic depressions, forced the railroad into bankruptcy in 1925 and again in 1938. After a short revival during the Second World War, the railroad again found itself in dire economic trouble, finally abandoning its lines in Montana in 1980. Much of the line through Mineral County was absorbed by the Forest Service, with other abandoned segments being purchased by state agencies and private individuals. Private contractors removed the railroad tracks, ties, and other appurtenances associated with the operation of the line by the mid-1980s.²⁹ (figure 9)

The Point of Rocks portion of the Mullan Road had largely been lost to history until 1995, when a local landowner sought a land swap with the Montana Department of Natural Resources and Conservation (DNRC) to improve access to his property. During the initial talks, it was revealed that both the DNRC and MDT owned the Point of Rocks segment and that it was largely unaltered since at least the early 1960s. Realizing the significance of the Mullan Road, the MDT and DNRC completed a land trade in 1999 that placed Mullan's Point of Rocks segment under the sole ownership of the MDT.



Figure 9. The Milwaukee Road was forced to remove an enormous amount of rock to maintain its two percent grade as it approached the summit of the Bitterroot Mountains to the west. Photo by Jon Axline.

A second trade with the adjacent landowner made the MDT the owner of the adjoining abandoned Milwaukee Road Railroad grade. After the land trade, the MDT installed interpretive markers, produced a brochure about the wagon road and railroad, constructed a parking area, and initiated a weed control program for the extensive spotted knapweed at the site. A forest fire swept through the area in August 2005, destroying most of the large trees and much of the underbrush along the Mullan Road. The fire revealed some of the Mullan Road's secrets, exposing the original spring 1860 road alignment along with a probable grave site. The MDT currently administers the Point of Rocks segment and the associated abandoned railroad grade as an unimproved hiking trail about two miles west of the community of Alberton.³⁰

The Point of Rocks segment of the Mullan Road was listed in the National Register of Historic Places in 2009. That designation also includes the adjacent abandoned Milwaukee Road grade, the railroad's Tunnel No. 18, and the various segments built by the Milwaukee Road to keep the old road open in 1909. The two-mile long corridor provides a striking example of different types of road construction techniques and a distinct contrast between the wagon road and the railroad. Maps made by Mullan in the early 1860s dovetail nicely with the existing road alignment. Enough so, that it was easy to distinguish between the transportation route the lieu-

tenant constructed and the alignment the railroad built over fifty years later.

The original Mullan Road was constructed to accommodate military wagons and averages about ten feet in width. The Milwaukee Road realignments were built with automobiles in mind and are slightly wider. The rock retaining walls placed by the Milwaukee Road contractor are of higher quality construction than the more slapdash Mullan Road retaining walls. (figures 10 and 11) Because of the Milwaukee Road's need to maintain a two percent grade, the railroad cuts are more extensive than those carved out of the mountain by John Mullan and his construction crew. Like the railroad, the early twentieth century contractors used explosives to make the landscape conform to the road, rather than the converse, as was characteristic of the Mullan Road.

Other Transportation Routes through the Point of Rocks Area of the Clark Fork

Because of its convenient location as a passage through the Rocky Mountains of western Montana, the Clark Fork has served as an important route for engineered roadways, both vehicular and railroad. Several have been described above. The last major engineering feature to be built along the Clark Fork has been Interstate 90, constructed in segments from 1963 to 1982. As with the Mullan Road, Highway 10, the Northern Pacific, and the Milwaukee Road, the interstate highway had to negotiate the topographic constriction of the Clark Fork valley in the Point of Rocks area, but it did so on the south side of the river.

The Point of Rocks of the Mullan Road overlooks a transportation corridor significant to Montana history. From a point on the Mullan Road, an observer can look down across two transcontinental railroads, the Yellowstone Trail, U.S. Highway 10, and Interstate 90—the full range of Montana's transportation history from 1860 to the twenty-first century. The Point of Rocks stands as a tribute to one man's dream to encourage the settlement of the region and is a good example of mid-nineteenth century road construction. Fortunately, later road projects avoided and, thus, preserved this important piece of Montana history. The proximity of the wagon road and the railroad provides an instructive contrast in needs and construction techniques during a relatively brief time in Montana's short history. (figure 12)



Figure 10. Unlike the railroad crews in the early twentieth century, Mullan's men were less particular about what they did with waste rock. Often it was just pushed to the sides of the road. Photo by Jon Axline.

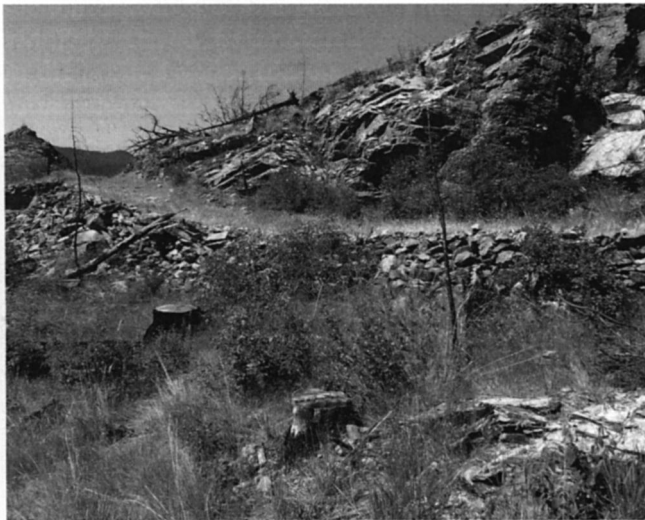


Figure 11. The railroad crew removed waste rock in one location for fill along other sections of the road. The different uses of the waste rock make it possible to determine which sections were built by Mullan in 1860 and which by the Milwaukee Road in 1908. Photo by Jon Axline.



Figure 12. Even today, the Point of Rocks segment is a tough hike with steep grades winding along the mountainside. Because of its significance, the two-mile segment, along with the adjacent abandoned Milwaukee Road section, are listed in the National Register of Historic Places in 2011. Photo by Jon Axline.

Notes

1. The title of this article is from Randall H. Hewitt, *Across the Plains and Over the Divide* (New York: Broadway Publishing Co., 1906), 382.
2. George Rogers Taylor, *The Transportation Revolution, 1815–1860* (New York: Rinehart, 1951).
3. Merrill G. Burlingame, *The Montana Frontier* (Helena, Mont.: State Publishing Company, 1942), 105; W. Turrentine Jackson, *Wagon Roads West: A Study of Federal Road Surveys and Construction in the Trans-Mississippi West, 1846–1869* (Lincoln: University of Nebraska Press, 1964), 259; John Mullan, *Report on the Construction of a Military Road from Fort Walla-Walla to Fort Benton*, repr. of 1863 ed. (Fairfield, Wash.: Ye Galleon Press, 1994), 12a.
4. Mullan, *Report on the Construction*, 5a–6a, 13a–14a (see n. 3); Dan L. Thrapp, *Encyclopedia of Frontier Biography*, vol. 2 (Spokane, Wash.: Arthur H. Clark Co., 1988), 1032; Jackson, *Wagon Roads West*, 259 (see n. 3).
5. Jackson, *Wagon Roads West*, 257–259, 260 (see n. 3); Mullan, *Report on the Construction*, 14a–15a (see n. 3); Burlingame, *Montana Frontier*, 128–129 (see n. 3); Carlos Arnaldo Schwantes, *Long Day's Journey: The Stagecoach and Steamboat Era in the Northern West* (Seattle: University of Washington, 1999), 109, 144; Thrapp, *Encyclopedia*, 1032 (see n. 4); John Mullan, *Miners and Travelers' Guide* (New York: W. M. Franklin, 1865), 17.
6. Mullan, *Report on the Construction*, 7a (see n. 3); Schwantes, *Long Day's Journey*, 109, 144 (see n. 5); Thrapp, *Encyclopedia*, 1032 (see n. 4).
7. Jackson, *Wagon Roads West*, 264 (see n. 3); Burlingame, *Montana Frontier*, 130 (see n. 3); Margie E. Hahn, *In Retrospect: A History of Mineral County* (Superior, Mont.: Mineral Publishing Co., n.d.), 15; Mullan, *Report on the Construction*, 13, 18 (see n. 3).
8. Jackson, *Wagon Roads West*, 265 (see n. 3); Mullan, *Report on the Construction*, 22–23 (see n. 3).
9. The Big Side Cut section of the Mullan Road is located on the mountainside above Alberton Gorge about eleven miles west of the Point of Rocks segment. Jackson, *Wagon Roads West*, 265 (see n. 3); Mullan, *Report on the Construction*, 22–23 (see n. 3); "Account of the Building of Mullen's [sic] Military Road," in *Contributions to the Historical Society of Montana*, vol. 8 (Helena: Montana Historical and Miscellaneous Library, 1917), 167; Hewitt, *Across the Plains*, 371 (see n. 1); Alton B. Oviatt, "The Movement for a Northern Trail: The Mullan Road, 1858–1869," Ph.D. diss., University of California, Berkeley, 1947, 130.
10. Mullan, *Report on the Construction*, 29–30, 33, 34–35 (see n. 3); Mullan, *Miners and Travelers' Guide*, 38 (see n. 5).
11. Mullan, *Report on the Construction*, 23, 26 (see n. 3); Jackson, *Wagon Roads West*, 268 (see n. 3).
12. Mullan, *Report on the Construction*, 28 (see n. 3); Jackson, *Wagon Roads West*, 267–268 (see n. 3); Burlingame, *Montana Frontier*, 131 (see n. 3); Louis C. Coleman, *Captain John Mullan: His Life Building the Mullan Road*, comp. B. S. Payette (Montreal, Canada: Payette Radio Limited, 1968), n.p.; Oviatt, "Movement for a Northern Trail," 37–38 (see n. 9).
13. Oviatt, "Movement for a Northern Trail," 130 (see n. 9).
14. M.A. Leeson, *History of Montana, 1739–1885* (Chicago: Warner, Beers and Company, 1885), 837.
15. Hewitt, *Across the Plains*, 12, 380 (see n. 1).
16. Hewitt, *Across the Plains*, 12, 380, 393–394 (see n. 1); Oviatt, "Movement for a Northern Trail," 137 (see n. 9).
17. Mullan, *Miners and Travelers' Guide*, 8–9, 10 (see n. 5).
18. Mullan, *Report on the Construction*, 5a, 9a, 20a (see n. 3); Thrapp, *Encyclopedia*, 1032 (see n. 4); Mullan, *Miners and Travelers' Guide*, 5, 8, 9 (see n. 5).
19. Mullan, *Report on the Construction*, 18a (see n. 3); Jackson, *Wagon Roads West*, 273 (see n. 3); Burlingame, *Montana Frontier*, 131, 246, 264 (see n. 3); Michael P. Malone, Richard B. Roeder, and William L. Lang, *Montana: A History of Two Centuries*, rev. ed. (Seattle: University of Washington Press, 1991), 72; Ellen Baumler, "When Camels Came to Montana," *Montana The Magazine of Western History* 50, no. 2 (Summer 2000): 69; Schwantes, *Long Day's Journey*, 173 (see n. 5); Oviatt, "Movement for a Northern Trail," 141, 143 (see n. 9); "A Sketch by Judge Frank H. Moody," in *Contributions to the Historical Society of Montana*, vol. 2 (Boston: J. S. Canner, 1966), 232–233.
20. Robert G. Athearn, "General Sherman on the Montana Frontier," *Montana The Magazine of Western History* 3, no. 1 (Winter 1953): 61–63; *Reports of Inspection Made in the Summer of 1877 by Generals P. H. Sheridan and W. T. Sherman of the Country North of the Union Pacific Railroad* (Washington D.C.: Government Printing Office, 1878), 41, 45, 47.
21. *Reports of Inspection*, 64–65, 123 (see n. 20); Mullan, *Report on the Construction*, 18a (see n. 3); Oviatt, "Movement for a Northern Trail," 155–156 (see n. 9).
22. Mullan also constructed a dam, impounding a spring and creating a small pool to provide water for horses, mules, and other stock. *Reports of Inspection*, 132 (see n. 20).
23. *Reports of Inspection*, 45–46, 59, 90, 98 (see n. 20); Mullan, *Report on the Construction*, 18a (see n. 3); Oviatt, "Movement for a Northern Trail," 155–156 (see n. 9).
24. *Laws, Resolutions and Memorials of the Territory of Montana Passed by the Fifth Session of the Legislative Assembly* (Helena, Montana Territory: Montana Post Publishing Co., 1869), 102; Jon Axline, *Conveniences Sorely Needed: Montana's Historic Highway Bridges, 1860–1959* (Helena: Montana Historical Society Press, 2005), 64–65; Roberta Carkeek Cheney, *Names on the Face of Montana: The Story of Montana's Place Names* (Missoula, Mont.: Mountain Press Publishing Company, 1990), 186; Marilyn Wyss, *Roads to Romance: The Origin and Development of Montana's Road and Trail System* (Helena: Montana Department of Transportation, 1993), 13; Alice A. and John Wm. Ridge, *Introducing the Yellowstone Trail: A Good Road from Plymouth Rock to Puget Sound* (Altoona, Wisc.: The Yellowstone Trail Association, 2000), 17–18; "Alberton Road Given Sanction," *The Mineral County Press* (Superior, Mont.), 8 March 1917 and 15 November 1917.
25. Steve McCarter, *Guide to the Milwaukee Road in Montana* (Helena: Montana Historical Society Press, 1992), 15, 95; August Derleth, *The Milwaukee Road: Its First Hundred Years* (Iowa City, Iowa: University of Iowa Press, 2002), 185; Chuck Mead, comp., *Mineral County History* (Superior, Mont.: Mineral County Historical Society, 2004), 55.
26. Chuck Mead, interviewed by Jon Axline, November 10, 1995, notes, Environmental Services, Rail, Transit & Planning Division, Montana Department of Transportation, Helena, Mont. (hereafter MDOT); McCarter, *Guide to the Milwaukee Road* 8, 11 (see n. 25).
27. McCarter, *Guide to the Milwaukee Road*, 15, 95 (see n. 25); Derleth, *Milwaukee Road*, 186, 187, 239 (see n. 25).
28. Established in 1912, the Yellowstone Trail was one of the United States' first interstate highways. Despite its national designation as The Yellowstone Trail, it was, indeed, a system of interconnected county owned and maintained roads until the 1920s when the states selected sections of it as part of their Federal-Aid highway systems under the Federal-Aid Road Act of 1921. Final Construc-

- tion Report on Yellowstone Trail Forest Highway Project, FHEC-8-46-M-2: Alberton-Cyr (1934–1935), folder 2, box 4, Federal Highway Administration Forest Highways Projects Reports, 1922–1969, MC 179, Montana Historical Society Research Center, Helena, Mont.; Special Use Record No. L-0511, Southwestern Land Office, Montana Department of Natural Resources and Conservation, Missoula, Mont.; Mead, interview (see n. 26); *The Mineral County Independent* (Superior, Mont.), 29 September 1955; *Helena Independent Record* (Mont.), 19 September 1955; U.S. Census Records, 1930, available at www.ancestry.com; Mead, *Mineral County History*, 55–56 (see n. 25).
29. McCarter, *Guide to the Milwaukee Road*, 23, 25, 27–28, 71 (see n. 25); Derleth, *Milwaukee Road*, 190–91 (see n. 25).
30. Interstate 90 currently occupies the space once held by US Highway 10 between Alberton and Cyr in Mineral County. Because US 10 wound through Lolo National Forest, all projects involving it were constructed under the auspices of the federal Bureau of Public Roads. Interstate 90 in this area was constructed as a two-lane, controlled access facility in 1963 and expanded to four lanes in 1982. Because the Interstate was designed prior to the abandonment of the Milwaukee Road Railroad in 1980, it did not encroach on the railroad grade. The railroad acted as a buffer between the Interstate and the Mullan Road. There were no impacts to the Mullan Road because of the Interstate. Chuck Mead, *Mineral County History*, 56, 59 (see n. 25); Bill Weikel, “The Point of Rocks: A Project Involving Preserving the Mullan Road, Providing Recreational Opportunity, Promoting Transportation History” (Missoula, Mont.: GMT Consultants, 1997), on file at Environmental Services, Rail, Transit & Planning Division, MDOT; Jon Axline, “Cultural Resource Inventory and Assessment: Proposed Mead Land Exchange and Point of Rocks Segment of the Mullan Road,” 24MN0133 (1998), pp. 1–4, MDOT; Jon Axline, “Point of Rocks Historic Transportation Corridor,” National Register of Historic Places, Nomination Form, March 5, 2009, MDOT and the Montana State Historic Preservation Office, Helena, Mont.