MP 248 – 249: The Jones Pass Road

There are several items of interest between these two mileage posts. In this mile are several examples of what the Colorado Department of Transportation (CDOT) has done to improve the safety of the traveling public, as well as a picnic area, a waterfall, tunnels and comments from the Project Engineer for the CDOT Widening Project. This section's description begins at the top near the 248 mileage post.

Read more information about history of U.S. Highway 40.

Route	Mile Marker	X	Y	Longitude	Latitude
[1]U. S. Highway 40	248	431155.03	4403068.51	-105.803887	39.774771
	249	430545.47	4402619.15	-105.810957	39.770673

The community of Berthoud Falls was named for a waterfall that can be seen in this section of U. S. Highway 40.

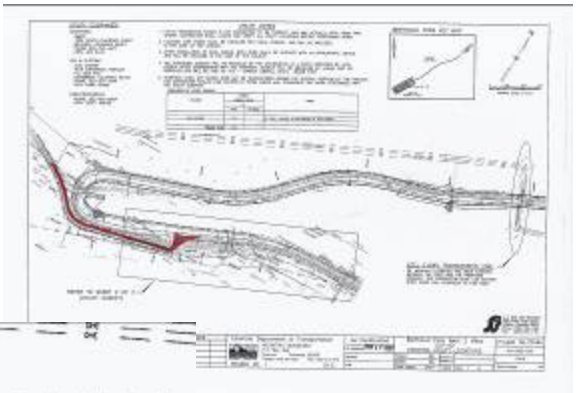
Also in this section is a sign for Colorado's Adopt-A-Highway program. This is a way that citizens and organizations can help keep U. S. Highway 40 over Berthoud Pass beautiful. There are several available on the Pass. For more information refer to the Colorado Department of Transportation (CDOT) website: http://www.coloradodot.info/programs/adopt-a-highway for more information.

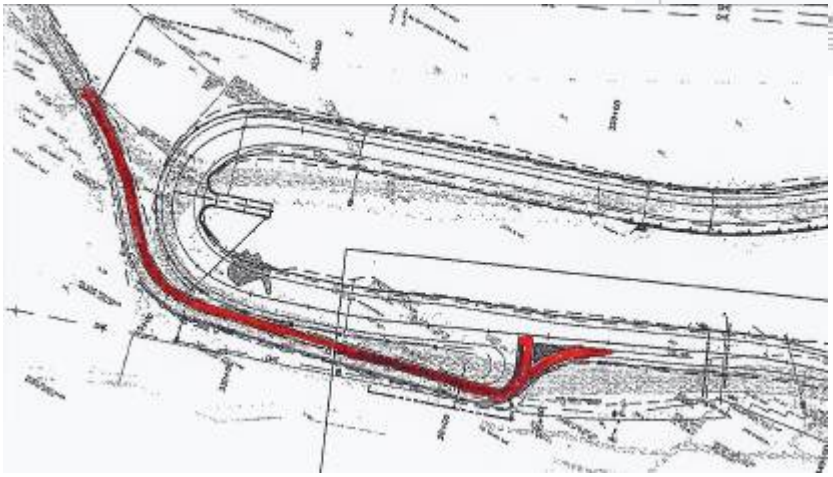
The previous Big Bend curve on U. S. Highway 40 was tight and could be dangerous. An important part of the widening project was improvements to this curve. A new entrance was created to the Jones Pass Road and Henderson Mine Complex.

[1] Taken from the Colorado Department of Transportation's website: http://apps.coloradodot.info/dataaccess/Highways/index.cfm?fuseaction=HighwaysMain

This is a U. S. Forest Service aerial photo taken above the Stanley Avalanche chutes and dated October 3, 1991. It is an unusual angle for the viewer. The turquois blue lake in the photo is Urad Lake. This photo shows the old curve before the widening project.

The orange arrows are for U. S. Highway 40. The red arrow is for the Jones Pass Road.





The drawing above and its close-up were provided by CDOT and J. F. Sato.

The red line is the new entrance to Jones Pass and the Henderson Mine.

The CDOT photo on the right shows the curve after the safety improvements were made to it.

Brian Gilbert was the Project Manager for the Berthoud Pass Widening Project. The author asked him to write something about his experiences and impressions of the project. Below are his comments:

Construction of the Berthoud Pass Widening Project
By: Brian W. Gilbert, CDOT Project Engineer

The plans: The plans required total reconstruction of a 2 lane highway with virtually no shoulders to 3 lanes with shoulders wide enough to accommodate snow storage in the winters.

The construction: Since there isn't really a reasonable detour route we had challenges such as:

Controlling Traffic on steep grades with switchback turns:

The contractors' equipment has to occupy part of the existing roadway in order to construct the new roadway, soooooo, where to put the traffic during construction?

What to do about a bicyclist wanting to ride the pass during the construction?

How do people react stopped on a mountain for 30 minutes waiting for the traffic to be released when there was no cell phone service and no bathrooms?

The challenging ground we built it on:

Building a roadway on the side of a steep hill which contains ancient slide paths. Water seeps encountered in numerous locations. The contractors said "every rock we turned over had water seeping out beneath it". We had to address that water during construction and in the final roadway configuration.

The challenging conditions we worked in:

Cold temps, rain, snow, ice, sleet, and snow mixed with rain and thin air at high elevations.

Most of the workers drove up from Denver metro every day (1 hour commute) for nearly 7 years, worked all day, then drove home (1 hour commute).

I can attest to having gotten wet and cold in every season tired and exhausted from the long days at high altitude, and the night work that became necessary as well because closing the pass at times became our only option to complete some of the work.

Henderson Switchback: Although every inch of the construction seemed to have been challenging, one notable portion of the construction is the curve at M.P 248 known as the

Henderson switchback which is at the base of the East side Berthoud pass. This is where a westbound traveler is 1st exposed to our efforts at widening of the highway. It is a spectacular switchback (named after a molybdenum mine in the vicinity). The work at this location consist of a new highway alignment accomplished by blasting and excavation into the rocky hillside where we widened the road significantly, constructed concrete guardrail, storm drainage, access to the Henderson mine, and planting of trees and shrubs.

Reflection: When all the work was complete for the project, I reflect back with a sense of pride for having done my small part in the ongoing history of the road over Berthoud Pass.

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Before the excavating was started on "the Henderson Switchback" the author and a team of students from the Colorado School of Mines were able to map the corner. An old road crossed this area, ending in the new curve area. A large earthen dam-type structure was also found with several old tin cans in the area around it. There are old mines in the area, and it is not known if this was part of a mining operation.

Photos were taken August 24, 2004.

According to the U.S. Forest Service, the Big Bend Campground was constructed in 1937. The picnic area has 5 picnic sites and a new accessible toilet which was provided by Colorado Department of Transportation (CDOT) during the widening project. The only other accessible toilet on the Pass is at the Summit.

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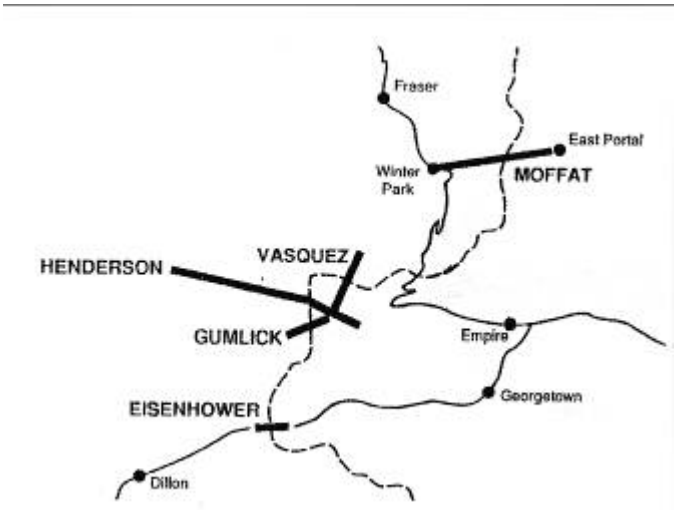
There are three important tunnels found near here. They are the tunnel that connects the Henderson Mine and Mill, and the Denver Water's Gumlick and Vasquez.



Denver Water provided the following information and photos about the Gumlick

and Vasquez Tunnels.

A short history of Denver Water:
In 1918, the City and County of Denver bought the water system from a private company, the Denver Union Water Company. The company had storage and water rights from the mountains and surrounding areas, such as Cheesman Dam, as well as the distribution system in Denver. During the rest of the 20th century, Denver Water continued to develop mountain resources to store and carry water to the Denver metro area. The Gumlick and Vasquez Tunnels are part of the Moffat Tunnel Collection System that conveys water to Denver through the Moffat Treatment Plant.

Information from the 1994 publication: Denver Water Resources: Features of the Denver Water System.

Gumlick Tunnel
West Portal 10,400 feet
East Portal 10,313
Original work 1940, lined and improved 1957-58
Function: Carries water diverted by the Williams Fork diversion system under the Continental Divide to the Vasquez Tunnel which then sends water to the Moffat Collection System.
Capacity: 550 cubic feet per second
General: Formerly known as the Jones Pass Tunnel, it was renamed for former Water Board President August P. Gumlick who served a record 30 years as a member of the Denver Water Board from 1929 to 1959. Gumlick took an active interest in the operation of the Water Department establishing an office in the department's headquarters and spending full time on water matters for the Commissioner's pay of $600 a year. Operating at full capacity, the Gumlick Tunnel can transport 355 million gallons of water a day.

Caption: "5258 VASQUEZ TUNNEL (S. portal) & GUMLICK TUNNEL (E. portal). View toward Gumlick Tunnel portal. Note accumulation of snow. 3-1-57."

"Courtesy of Denver Water, December 5, 2011."

Vasquez Tunnel
South Portal 10,310 feet
North Portal 10,210 feet
Completed 1958
Function: Conveys water from the Gumlick Tunnel to Vasquez Creek which carries it to the Moffat Tunnel for delivery to the city via South Boulder Creek, Gross and Ralston reservoirs and the Moffat Treatment Plant.
Capacity: 550 cubic feet per second
General: The Gumlick and Vasquez Tunnels are joined by a short, enclosed connection conduit.
Completion of Vasquez Tunnel provided greater utilization of the Williams Fork diversion system. Previously water through the Gumlick Tunnel was released to Clear Creek and was used for exchange purposes only. With the addition of the Vasquez Tunnel water now flows from west slope to east slope then from east slope to west slope before entering Vasquez Creek and the Moffat Tunnel where it flows, once again, from west slope to east slope and into the city.

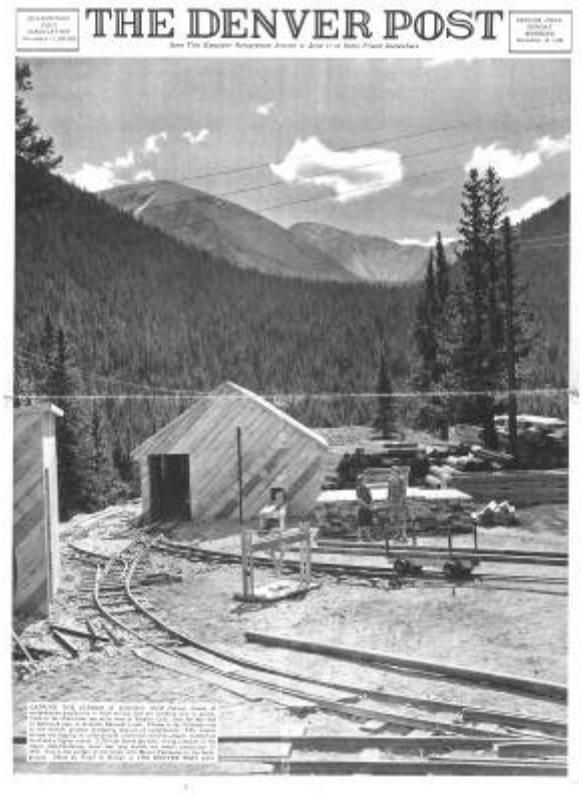
Caption: "5295 VASQUEZ TUNNEL, S. portal. Fan house at right. 6-7-57."

"Courtesy of Denver Water, December 5, 2011"

The Jones Pass Road was built by John S. Jones, who was here during the same time period as William Russell (see MP 243-244), his business partner for many ventures. According to historic notes, it was used only once or twice as a stage route. Today the road provides access to the backcountry.

The white sign in the photos warns of explosives and of blasting in the area. It asks that if "projectiles or other foreign objects are encountered...not to touch them, and mark the location and report it to the Clear Creek Sheriff's Office."

There are a large number of avalanches paths along this road.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At 0.4 miles from the U. S. Highway 40 turn off, a left turn is for the Urad Mine. The public is allowed to use the road, trespassing is not allowed on the mine property.

The Mining claims were first staked in the Urad Valley in the early gold rush days. In the 1860's, it was part of the Atlantic Mining District.

Early miners found some silver, but it was the discovery of the mineral molybdenum ("moly") that would bring development into the Urad Valley.

Fishing is allowed at the upper reservoir which is operated by the Golden Water Board.

Molybdenum is a grayish-blue mineral that was first used to strengthen steel. Today it is also used in airbags, light bulbs, paints and plenum cable.

All that remains of the old mining operation are the new water treatment plant that was built in 1997 and the historic mill where the Urad Mill began.

This photo was taken on the Urad Road looking at Berthoud Falls and U. S. Highway 40, as it climbs Berthoud Pass. The mountain in the background with the tower on top is Colorado Mines Peak.

The following information has been taken from the company website:

"As a subsidiary of Freeport-McMoRan Copper & Gold Inc., Henderson is the largest primary producer of molybdenum in the world.

The Henderson Mine is located in Clear Creek County on the east side of the Continental Divide, in the beautiful Rocky Mountains fifty miles west of Denver, Colorado. The Henderson Mill is located on the west side of the Continental Divide, fifteen miles from the mine in Grand County. The Mine and the Mill are connected by the world's longest conveyor of its kind; a fifteen-mile elevated belt that passes underneath the Continental Divide through an old train tunnel and then above ground to the Mill.

In operation since 1976, Henderson has produced more than 160 million tons of ore and 770 million pounds of molybdenum during the past 27 years."

The historic photo on the right has a caption that reads: "Woman miner, right, works along side male counterpart on "jumbo" drill sharing equally in work and pay"

The photo above is used with permission from the Denver Public Library. The Denver Public Library, Western History Section, has a very large number of historic photos of the mine, mill and Urad Valley.

The photo on the right is an old U. S. Forest Service aerial photo showing Red Mountain. The red arrow shows how the mountain has fallen into itself.

Today, the Jones Pass road is classified as a 4 x 4 road by the U. S. Forest Service.

It is used heavily in the winter by snowmobilers. In the summer, it is known for its wildflowers and beautiful mountain landscapes.

The three historic photos above are of Jones Pass and are used with permission from the Denver Public Library. The photos were taken by Donald Campbell Kemp in 1945.