ROLLINS PASS WINTER 1910

BY

GianFranco "Jango" Messaggi

A ROUTE FOR T:ANE Trainz

A HISTORICAL RESTORATION

2017

HISTORICAL BACKGROUND

ROLLINS PASS WINTER TEAM

DENVER NORTHWESTERN & PACIFIC RAILROAD
ROLLINS PASS
1909 - 1919 Era

Winter Version

HISTORIC BACKGROUND

Digital Restoration Simulation and Rolling Stock
Complete Winter Set

Founded by David Moffat in 1902
Known as the Moffat Road

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ROLLINS PASS WINTTER 1910
DEVELOPMENT TEAM

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Origins

Over a high pass in Colorado in the early 1900s a remarkable steam Railroad was constructed and operated for twenty years through some of the most extreme conditions and challenges faced by any railroad in North America. This route called the Moffat road, over Rollins Pass is the subject of this project to restore it in digital form started in 2004 by GianFranco "Jango" Messaggi has continued to this new version being completed 12 years later. This is a winter version of the route created for a digital simulator called Trainz that allows the viewer and user to drive the trains of that era in historically accurate activities and to see and experience the actual locations and equipment of that long gone railroad, over 100 years ago. This project has been the work of a dedicated team who have worked to create the most accurate restoration of the Rollins Pass Route from the era 1909 - 1919 and all of its details. A full set of digital rolling stock engines and MOW equipment is available all created from accurate plans and with full detail. This document is a summary of the history of this Railroad created by David Moffat, the Denver Northwestern & Pacific RR, later the Denver & Salt Lake RR to connect Denver and Colorado with the western part of the United States, hopefully with a tunnel to bypass the high climb over the Rollins Pass which was a feature of the early years of the railroad and which is the focus of this digital Restoration project.

David Moffat was a remarkable man who started very early in the history of Denver working in commerce in various ways and was significant in the development of the history of Colorado and the opening up of commerce with other parts of the country often in the face of great opposition from other RR companies and competitors. He was significant in helping bring Rail access to the Gold fields of Cripple creek and at one time and another according to some accounts had interests or owned 200 mining claims of his own. His wisdom and vision and integrity were the keys to the creation and the success of the DNWP. He was trusted and loved by his employees and workers and they achieved miracles for him and he gave them total support, backing up any cheque written by any of his men.

In 1902, the city of Denver was well connected into the rail network, with one exception. Any westbound traffic either went north via the Union Pacific to Wyoming and then over the Continental Divide, or went south via the Denver & Rio Grande to Pueblo, where it passed west either via Marshall Pass and the narrow gauge, or up and over Tennessee Pass on the standard gauge. The missing link was a line straight west from Denver and over the Divide to the

communities of the western slopes of the Rockies. In a way, the Denver, South Park, & Pacific had almost achieved this, passing west along the South Platt and reaching the west side at points such as Dillon, but the DSP&P wasn't exactly a serious competitor. First, it was narrow gauge, never designed for heavy tonnage nor to connect into the standard gauge network. Secondly, it crossed no less than three high mountain passes on its trip west - east to west: Kenosha, Boreas, Fremont, and then through the Collegiate Range via the Alpine Tunnel. It could barely be kept open in the winter, and terminated in the middle of nowhere - Northwest of Gunnison, CO. Standard gauge traffic going via the Rio Grande had to travel at least 200 miles further than necessary as it was routed down to Pueblo and then via the Royal Gorge and Leadville (and Tennessee Pass, with its 10,500 ft. Divide crossing, was no joy to keep open in the winter, either). A better solution was needed.

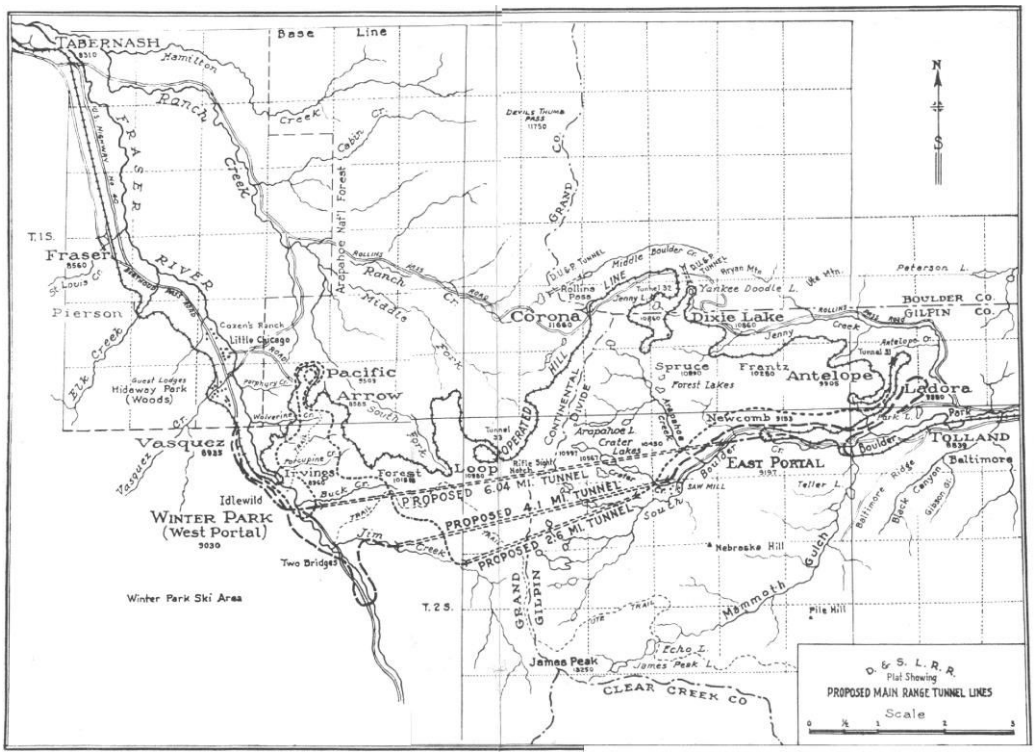
Ever the Colorado railroad visionary, David Moffat proposed a Denver-Salt Lake mainline in 1902 that would pass directly west from Denver, through the main range of the Rockies in a great tunnel, and then west through Bond, Steamboat Springs, and Craig before heading through barren Northeastern Utah into Salt Lake City. The road would be founded as the Denver, Northwestern & Pacific Railroad. The real challenge with this was how to get through the backbone of the mountains. West of Denver (elevation 5280 ft., roughly), the base of the main range was only 45 miles west and over 4000 feet higher. Assuming a straight shot, that's still a 1.7 percent grade, nearing the 2.0-2.2 percent considered a reasonable maximum for any mainline standard gauge railway. However, the rise along the line's path was far from linear.

Sunrise over the Continental Divide at Tolland
screenshot by Jango

The Flatirons - massive near-vertical, upthrust plates of rock forming the front of the Front Range - marked a significant challenge in maintaining the desired grade. Following the Leyden mesa up from downtown Denver, a reasonable grade could be maintained as far as the Flatirons (near what today is Rocky

siding). At that point, two large, tight curves were needed to bring the line up out of the draw it had followed to the base of the great front of the Rockies. These, both being 10 degree curves, eventually became known as the Big 10 Curves that continue in service to this day.

From there, it was a battle for every vertical foot, and two different engineers came up with two different proposals. The original proposal, put together by Moffat's chief engineer from his narrow gauge electric railroad TJ Milner, was to run up to the mouth of Coal Creek Canyon (probably somewhere around the current Colorado 72 bridge) and then bore a tunnel slightly over a mile long into South Boulder Canyon, bypassing the worst part of both canyons. Shortly afterwards, H.A. Sumner stepped in with a competing proposal - build up the Flatirons and follow Boulder Canyon the entire way. The route would provide the coveted 2 percent maximum grade, but would require around 30 small or medium-sized tunnels to bore through ridges in both the Flatirons and in South Boulder Canyon.

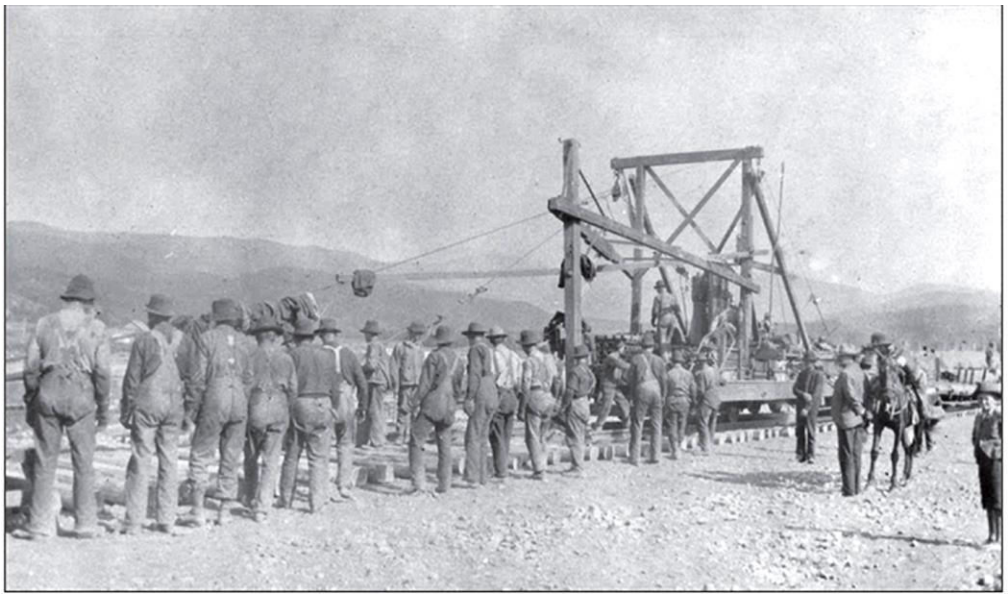


Route of the DNWP
Map Courtesy Denver Public Library Collection

Sumner's route was eventually chosen due to its better grade as well as its less severe curvature. Ridgway, Moffat's chosen General Manager, apparently preferred Sumner's route because he felt that operations would be easier on a long, steady, mostly open grade rather than trying to run up an opposing grade and probably needing to use pushers out of Denver. In the age of steam, being in a tunnel was bad enough. Being in a pusher inside a lengthy bore was

intolerable at best and potentially deadly if the train stalled out for any reason. The 6000 ft. bore proposed by Milner was patently impractical for the era.

Once the route was surveyed, grading, boring, and tracklaying proceeded quite quickly considering the terrain. At that point, the foot of the main range of mountains lay only a few miles to the west. At this point, the greatest challenge of them all sat ahead - how to breach the main range.



DNWP Track Laying Gangs at work 1905
Image from Private Collection

Moffat's railroad had no real source of income in its current form - only the tourists who would pay for day trips out and back, which clearly would fall off in short order. It needed through the range, but due to sources of investment capital being turned off back east of Harriman's interests (in order kill off a potential competitor to his Union Pacific), Moffat had only enough money left to either complete the tunnel or to possibly (with a great amount of stretching) get the rails to a potential source of paying carloads - the resort at Hot Sulphur Springs and the coal mines near Phippsburg. Without additional investment, one or the other could be completed, but not both.

Even if the so-called Main Range Tunnel was not prohibitively expensive, it would take at least several years to complete. For a railroad with no real revenue source, a couple of years is a very long time to be drilling an incredibly expensive tunnel. Even the shortest (and by Moffat's surveys, the only seriously considered) proposed Main Range bore was still 2.6 miles, and that was at an elevation just a hair under 10,000 ft - starting just west of Ladora. The decision was made to build a cheap and quick branch from Ladora over Rollins Pass, cresting at 11,660 feet. The line would not be built to DNW&P mainline standards, because it wasn't the mainline and it was only temporary. Four percent grades and sharp curvature were not only allowed, but in fact the norm on this temporary diversion.

Even while the problems with the Main Range bore and the diversion over Rollins were being decided, surveying was continuing along the proposed route further west. Sumner and crew were working through the next major challenge along the route - Gore Canyon, between Kremmling and what is now Bond. Steep, unstable, and unforgiving terrain was surveyed in the Winter of 1903 - a nearly insane feat, but a testament to the devotion to get the line pushed through to a stable source of freight.

UP's Harriman, unable to keep Moffat from building by denying him investors, took to a new tactic. The entire Gore Canyon area was claimed by the New Century Light and Power Company (a shill company of Harriman's), which intended to dam it for hydroelectric purposes. This would submerge the proposed right of way under potentially a hundred feet of water or more, leaving Moffat's road to either throw in the towel or build over yet another summit in the Gore Mountains on the north side of the canyon. Fortunately, the Burlington had surveyed a potential route through the canyon years earlier in the 1880s as part of the Colorado Railroad project, and still had the deed from that experiment. Even this did not solve the issue, and the matter dragged on through the courts.

First DNWP Passenger Train at Tolland 1904

Photo Private Collection

On 23-Jun-1904, a little under two years after the incorporation of the DNW&P, rails had reached a point designated as Mammoth, where modern day Tolland sits. By 2-Sep-1904, locomotive 300 and three passenger coaches crested the Divide on the Rollins Pass diversion to a location now known as Corona, aka "Top of the World". Corona quickly became a vital depot and facility for the developing DNWP railroad for its strategic location at the very top of the 12,000 foot Pass, though as the railroad soon found out, that exposed high mountain plateau was exposed to some of the most severe and brutal winter storm conditions in the Continental United States with winds of up to 100 miles per hour and storms that could dump three feet of new snow in one night. The snow was so severe there that it often lasted all the way thru the summer. The challenges of the weather and especially the snow soon became one of the main areas of focus for the entire MOW work of the road.

First Train into Corona

Denver Public Library Digital Collection

By 28-Sep-1904, the rails had reached Arrowhead on the west side of the Divide, and with it the first regular revenue freight trains were run. Reports are that 185 cars of cattle and six cars of lumber came out of Arrowhead, partially helped by a road the railroad had built from Arrow down into settlements in the Fraser Valley below.

Arrow was started as a lumber camp to serve the local lumber mills that were busy cutting wood for all of the construction of the Railroad and had grown rapidly into a flourishing and rowdy town that served the trainmen, the lumber men and the laborers that worked for them both. It was typical of a number of the boom towns that grew up along the path of the advancing railroad, but Arrow became for a number of years a very successful destination for the Passenger trains for the DNWP, with specials bringing crowds of summer visitors to see the sights along the way.

Panoramic View of Arrow from Rollins Winter 1910 Route

image by Jango

The town of Arrow continued to thrive until the railroad had moved on into the Fraser Valley and then quickly declined and was destroyed in a fire one windy night in 1915.

Arrow Around 1914

Denver Public Library Digital Collection

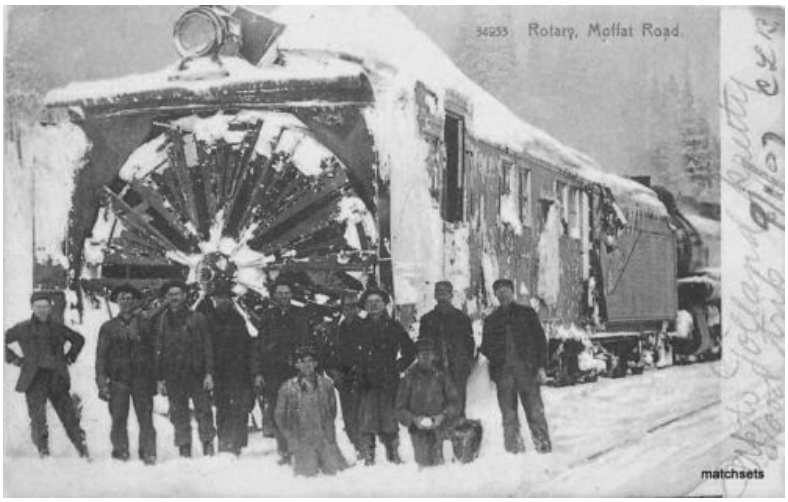
Only a month later, the DNW&P got its first taste of what winter could do on Rollins. On 19-Oct-1904, a passenger train became stuck in a 20 ft. drift for over a full day. Snow sheds were under construction, but they were not completed in time for the early arrival of winter at these elevations. The DNW&P didn't even have a snowplow yet in 1904 - a borrowed Colorado Midland plow was used to reopen the line during that first winter of operations. Their first plow, a 36-ft rotary built by ALCO, arrived in early January of 1905. Even it could not deal with the severity of the Pass, though, as its mechanism was torn to shreds upon hitting a rocky avalanche on its first trip up the hill. It was hauled back to Denver and rebuilt with a stronger mechanism and heavier blades, but winter continued to plague the new railroad, shutting down the Rollins Pass line at every possible opportunity.

By August of 1905, rails had reached Hot Sulphur Springs, CO, 110 miles from Denver proper. On the twenty first of that month, Moffat himself rolled into town on board a special train, along with a few prominent guests. Winter hit the pass in September, but due to luck and better preparedness, the DNW&P kept the line open. It was reliable enough that by November, they had tri-weekly trains running from Denver to Hot Sulphur Springs.

The resolution to the Gore Canyon issue started to take hold over a year later, in April of 1905 when Pres. Teddy Roosevelt, on a hunting trip to Colorado, was informed of the problem. Moffat and most of the backers of the Moffat Road were prominent Republicans, and let it be known at a Denver fundraiser that they'd like the Department of the Interior to back off on the dam issue. With

this pressure from his Republican base, the President put an end to the problem for good on 9-October-1905, when the Dept. of the Interior was told in no uncertain terms to drop the proposal. Thus Moffat had won the battle, and it was said he kept a statue of Roosevelt on his desk from that day forward. With the rails already pushing through Byers Canyon west of Hot Sulphur, Gore Canyon was quickly becoming an issue. With the rights resolved, the grade was complete partway through Gore by the close of 1905.

By the close of 1906, the Moffat Road had only a bit over 100 miles of trackage to show for its four years of existence, pathetically little business, and was financially destitute. In addition, while it had many miles of quality mainline, it had the hideously expensive Rollins Pass to operate, which regularly drained off any meagre profits that the railroad might accumulate during the more temperate months. Moffat himself, having pumped his personal fortune into the line upon being unable to find investors, was nearly broke as well. By 1907, the rails had only reached Yarmony, far short of any of the natural resources (coal, oil, gilsonite) that were projected as stable revenue sources.



One of the Huge Rotary Snow Plows of the DNWP
Source - 1911 Rotograph Postcard

Thanks in no small part to a group of investors, lead by David Dodge, finances were provided to continue the line. In September of 1908, rails finally reached the first online resource - the coal fields near Oak Creek and Yampa. By January 1909, the railway had progressed to Steamboat Springs, but shortly after that, the line was once again out of money.

Early Operation of the DNW&P

The Railroad depended on local freight, passenger service and supporting its own operations for its activity and income. It maintained its own stock on the rails and also passed thru stock from neighboring RRs and borrowed Passenger coaches and rolling stock when needed. It operated daily passenger trains from Denver to the various points on the RR as the line advances. Tolland was the first major end point, followed by Arrow, and then Fraser and then Tabernash was made the Section HQ in 1914. There were maintenance facilities at Tolland:

Tolland Depot

Image by Jango

large Coal transfer, log dock, Engine house, Water tank, Sand house, shops and a yard and Y, typical of the support facilities required by the railroad all along the route.

Tolland Depot, Rail Yard Engine House and Ice House

Tolland Town View, Main Street, Depot and Rail Yard 1913

Images C. Gerlach

more facilities at Arrow where there was a tool house, Depot, yard and minimal shops, Fraser had a 3 Stall engine house but it was moved to be part of the large six stall one at Tabernash, Wye's and sidings served various locations as well as up over the high grade called the Hill over the top of Rollins pass which was the stretch from Tolland up to Ladora, Spruce Wye, Yankee Doodle Lake, and on to Corona. At Corona there was a large depot inside a huge snow shed complex, water tank, and USGS Weather station and a large hotel for snow bound visitors, and housing for 70 staff in reused box car housing.

Corona Huge Snow Shed Complex Depot, Workshops and Housing

Image by Jango

Arrow had staff housing for the crews in a Section House and there were staff houses and Section houses at many of the sidings and Y's along the Hill Route. Fraser had a depot and minimal facilities by the time of our route version as they were all at Tabernash where there was a large engine house, shops, two water tanks, a large coal transfer dock, and housing for staff and a small depot.

Tabernash Coal Trestles, Water tanks, Engine shops and yard

Image by Jango

Tabernash had a 10 stall Engine house and a large yard for the thru traffic and the town grew to over 2000 residents. A large Lumber Mill close by delivered

heavy traffic to the railroad and was just one of a number of very active mills along the route.

The main industry of the region of the route was timber harvesting and logging. There were at least 8 mills some of them very large, located at Tolland the Jenkins Mill in Boulder Creek Canyon, near Newcomb and later one located

Jenkins Mill South Boulder Creek

Image by C. Gerlach

at Tolland on the Y, Ladora, large mill and small village, Antelope was a large logging camp with housing and a tie and MOW camp, a large mill at Sawmill siding just near Arrow, which was started as a logging camp by a man named William (Billy) Woods who helped incorporate Arrow in 1904, and later owned the next large mill down at Irving on the RR where the mill was quite large. These mills were the heavy industry of the region and delivered their products to the outside world on the DNWP Railroad, for without the rail road there would have been no affordable way for them to transport the cut lumber, RR

ties, telegraph and later telephone poles, fence posts, mine supports, and wooden boxes to the outside markets.

The mills were therefore a very important part of the history of the DNWP and its work.

Sawmill Near Arrow 1912

Image by C. Gerlach

Sunrise at Sawmill Siding Near Ranch Creek

Image by Jango

The Timber was often cut and harvested in the winter as the snow made it much easier to drag out the logs and deck them for the spring season when the mills could cut them and the log flumes could deliver the timber to the mills. So the lumber camps in the woods were an integral part of the timber trade and also the work of the railroad. There was a large mill, the Middle Park Mill built by George Easom at Fraser that had a short line RR over to the St Louis Creek

region where there were three logging camps and a large log flume that delivered logs to the Mill six miles away.

Middle Park Mill, Flume and Climax Logging Train RR

Copenhagen Lumber Camp, St. Louis Creek, Fraser Valley

Stockholm Lumber Camp

Image by Jango

Another large lumber mill served by the DNWP was at Tabernash just past the Yard and it too was served by a flume from the logging district at the edge of the valley. All of these mills are re created in full in this version of the route including their operating equipment and structures in the support camps.

Western Box & Lumber Company Mill, Tabernash 1915

Images by Jango

Another significant industry was harvesting Ice from the local lakes, including a large ice house at Tolland on the Y by Park Lake, and that ice was shipped locally along the route and to Denver in six refrigerator cars.

Ice House on Park Lake, Tolland

Image C. Gerlach

Ice Bound for Denver From Tolland Ice House

Cattle and Livestock were shipped along the route in 75 stock cars from local ranches. There were stock yards at Tolland, Arrow, Fraser and Tabernash.

Other industry was coal shipped from the far end of the line to Denver and served as one of the major sources of income for the Railroad Local Ranches were a significant source of trade and commerce and they raised agricultural products, vegetables like lettuce, wheat, corn and mostly beef cattle, Herefords only there were no other breeds of cattle in Colorado at that time. Horses served as motive transport and a series of roads connected the towns over the Rollins pass wagons in the summer and horse drawn sledges and sleighs in the winter served all of the towns and ranches.

Equipment

The DNWP under David Moffat bought engines from ALCO and Baldwin mostly; the rolling stock was almost exclusively from Pullman Company.

DNWP 302 Builders Photograph

Private Collection

David Moffat had formed a close friendship with George Pullman and purchased all of the stock specially deigned for the route from Pullman. The DNWP stock was unique in America for having six truss rods for extra strengthening of the cars for use on the pass. The first series of Box cars was the 5000 series, wooden and with truss rods and manual brakes.

DNWP BOX CAR 5000 Series Pullman Company 1904

Image Courtesy Corona Telegraph

The first set of Gondolas was the 3000 series: they were wooden and had six truss rods and manual brakes. There were two series of flat cars all in the 20000 series that had eight and ten stake pockets they were used for lumber, logs, timber products, the brick trade out of Denver, and also for carrying coal, sand, gravel, ballast, and snow using low sides or just piled on. They were used in the winter with snow plows a long line of them were pulled by the plow trains because the snow sheds could not be serviced by the plows so they had to shovel the snow onto the flat cars and then take the cars to some step grade and dump the snow off by hand. There were six refrigerator cars used for the

ice trade and 75 stock cars, also bought from Pullman painted black but they faded fast and were a light gray for most of the service. The RR used a unique number font for the road numbers and it has been carefully recreated on the route stock which all has authentic road numbers and ID info.

DNWP Digital Engine and Rolling Stock Set

The Rolling stock package for this Digital Route now contains all of the main types of freight cars, including Box cars, Gondolas, Flat Cars, Refrigerator Cars, Stock Cars, Tank Cars and Cabooses of a number of types. Each car is capable of carrying accurate weight and types of cargo which is also included for use and all operate based on their actual size and weight and braking characteristics of that era. The same goes for the Passenger stock, and the MOW equipment including the famous huge Steam Rotary Snow Plows all three of which are included and available for use. A summary Gazette of all of the rolling stock from the DNWP created for this route project is available under separate cover.

Engines

DNWP No. 203 2-6-6-0 Mallet Locomotive

The trains on the DNWP were pulled by a small variety of types of engine: the passenger trains were all pulled by the 300 series of 4-6-0 engines, the 300, 301, 302 and 303. They were handsome engines with Russian steel boiler coverings and stood 16 feet tall. They were much loved by the crews and driven most of their time by picked crews and were very successful. Due to the 4 percent grade on the Hill, only four cars were usually pulled by one engine, 8 or 10 by two. The freight traffic and working snow trains were pulled by Consolidations 2-8-0s called "Hogs" by the crews. There were 24 of them all numbered in the 100 range. There were 10 Mallets numbered in the 200 range, originally 0-6-6-0s but due to derailment on the curves a pilot truck was added. These pulled the freight over the Hill, a Hog could pull 8 loaded freight cars and 2 could pull 16. When the Hogs pushed the Rotary snow plows of which there were eventually three, they used between 2 and 6 engines and tenders depending on the snow conditions. Helper engines were posted at Tollland, Fraser and Tabernash. There were smaller working engines 4-4-0s and 0-6-0s numbered in the 20s... There was also a Heavy Steam Crane for Wrecking stationed at Tabernash and a steam shovel for construction work. The 4-4-0s

were used for construction trains and usually they pulled flat cars with low sides for use on that work.
Snow Service Equipment

The route traveled over a very high pass and very heavy snow fell often blocking the route for days and at a few times months. During that time trains might get stuck at Ranch Creek unable to get up the grade to Corona and passengers had to walk up the line to the hotel at Corona built for just this situation. Snow Plow trains had to operate almost constantly to keep the route open. The snow had to be cleared constantly to keep the line open to keep the contract to carry the mails for the US Postal Service and ICC. The cost was as high as 40 percent of the total cost of the annual operations just to do the snow work. The DWNP owned three large steam rotary snow plows that had no motive power of their own, their on board steam engines were just for the plow blades so they had to be pushed by 2 or more Engines. DNWP operated with two plows until the war years when the USRA bought them the third.

DNWP Steam Rotary Snow Plow 10020
Image Denver Public Library Digital Collection

Even with the snow rotaries sometimes the snow would melt under the engines and then freeze level with the rails making it impossible for the trains to move. The RR developed a special large hammer assembly that fitted the front of the Mallets that could be raised and then dropped inside the track width to break up the ice. It was a very tough process to keep the line open. During the winter the rotary plows were stationed at Spruce Y or at Tolland as needed at that end and at Arrow, or Corona and in the summer were parked at the Ranch Creek Y.

MOW Equipment

The DNWP owned a steam Wrecking Crane, and also a steam Shovel both of which were used for construction and for recovering and repairing cars and engines that derailed or had accidents. At one time or another every single engine of the fleet was off of its wheels in some form or another though most were repaired and returned to service. The railroad also maintained some work

cars of various kinds, old box cars that had been retired from service were used as way cars of various kinds.

Passenger Cars

The first fleet of passenger cars was built by the St Charles Car Company in 1899 and was obtained by David Moffat as a return on an investment. They were painted dark Pullman Green with gold detailing and were wood sided and had enclosed vestibules. They were paneled with oak molding and had green cloth Pullman seating and dormer windows with a clearstory and elegant kerosene chandelier lighting, with a WC forward and aft on the cars. They were much loved and very comfortable. The passenger stock was added to later on with the 710 series also wood sided and then some steel turtle backed cars were added later as well. Combines carried the baggage and mail, and dedicated Express cars and mail cars were added over time or converted from passenger cars withdrawn from service. For now we have just the following:

DNWP Engine No. 300 and the No.1 Passenger Service Consist
Image © Denver Public Library Digital Collection.
Built by St Charles Car Company 1899 as delivered the Set included Cars No. 700-708, Combine 660, 661, with later additions being Parlor Car 800, Cars No. 710 - 715, and additional RPO and Combine Cars

The original class of eight cars obtained for the DNWP as the first passenger service were wooden monitor roofed Closed vestibule truss rod coaches of the finest design and materials and craftsmanship.

DNWP Coach 702

Image C. Gerlach

They served the DNWP as the primary passenger service until the next group of passenger coaches were built for the Railroad by the Pullman Company. These cars included 2 combines with partial passenger seating, and Baggage and freight facilities for Cars number 660 and 661.

DNWP Combine 660

Image C. Gerlach

The first two combines (baggage/passenger), 660 and 661, from CB RR were probably identical. 660 it was significantly modified in 1908/1909 and became the 672. It was burned to the trucks in 1913. It did operate on the line looking like the 661 for about four/five years. DNWP then obtained RPO combines 670 and 671 from Pullman in 1906. A new steel RPO/baggage, rounded or turtle topped with high roof vents, 560, came from Pullman in 1913 These cars were equipped with air Westinghouse brakes and Pullman trucks friction roller bearing four wheel trucks.

The passenger service was fulfilled by the railroad using two daily scheduled departures, the No.1 from Denver westbound and No. 2 from the East terminus Westbound. The 300 series engines were always used for this service and the train crews consisted of engineer, fireman, conductor, and brakmen for the cars had internal braking systems and were braked on descent by hand until the advent of air brakes. The Railroad was very proud of its record of safe passenger service, and though there were many injuries and sadly fatalities among the engine crews and line men, no passenger lives were ever lost.

Observation Car 800

DNWP Observation Car No. 800

Image C. Gerlach

This Observation Parlor car was used as such from the start of its being brought to the DNWP. It was a handsome car and popular with tourists on the Arrow Turn and other Tourist specials. Another Observation car of the same type also existed, the No. 801 but with arched parlor style windows and a full kitchen array and six wheel trucks. These cars were equipped with air Westinghouse brakes and Pullman friction bearing trucks.

Also used were a number of Baggage cars and RPO Cars usually in the same style as the latest added passenger stock. All of these early versions are available in the stock set for the digital route.

Towns and Life Along the Route

The history of the DNWP is that of the people who made the route, ran it, and lived along it. They were hardy strong, tough and enterprising. They did all of this by hand ...the only motive power other than the trains themselves and steam engines was the horse and horse drawn equipment. All items were made locally by craftsmen, specialists, shops, and local and regional industry or shipped in on the RR. All items were wood, metal, leather, cloth, glass or stone or earth of some kind. Everything was shipped in wooden boxes, barrels, glass jars or bottles, or bales and sacks. All work was done with shovels, picks, hammers, axes, saws and tools of the trade. Workers were paid 30 cents a day up to 3.00 a day for the very best. There was no insurance or workers compensation if you were hurt or injured you lost your job unless you had a very rare boss like David Moffat. Life was short for many, medicine very primitive. There were few doctors but one became very well known for her long and dedicated service, Doc Suzy a lady who worked out of Arrow and then Fraser for almost 50 years. We have tried to re-create the daily lives of the people of the region and show the towns along the route as realistically and completely as possible. We have also included lumbermen, ranchers, and outfitters typical of the era, to show the many types of people who worked to make life possible in the rugged natural environment and life of that era.

Fraser Depot and Passengers

Image by Jango

Food was grown locally or shipped in on the RR. There was only ice for preservation so all was pickled, canned, salted or fresh. Beer was the support of the workers, and there were many bars and saloons in all of the towns. General Merchandise stores carried all dry goods and had everything but there were local tailors, shoe makers, dentists, barbers and the like. Ranches and farms raised cattle and some crops, and a few sheep but sheep were hated by the cattlemen as they destroyed the range. Hunting and Fishing were big in the region and people came for that alone. Also tourists came from Denver to visit Tolland and then later Arrow to see the wild flowers and to get out in the country so there were dozens of hotels and cafes and lunch rooms in all of the towns along the route. It is to be assumed that a lot of the winter crews and men stationed on the Hill did quite a bit of hunting during the winter months to get by as did the lumber camps and other locals.

Wildlife along the DNWP - Elk at South Boulder Creek

Image by Jango

The big towns were Tolland, originally called Mammoth but renamed for the Toll Family who owned the Toll Ranch and a lot the area and still do...Arrow, and Fraser and then Tabernash. Tolland had a large hotel built by the Tolls, and smaller ones, many cafes and eating places and a big outdoor pavilion for meals for the tourist trains and an eating house made by the RR.

Tolland - 1920's

Archived Post Card

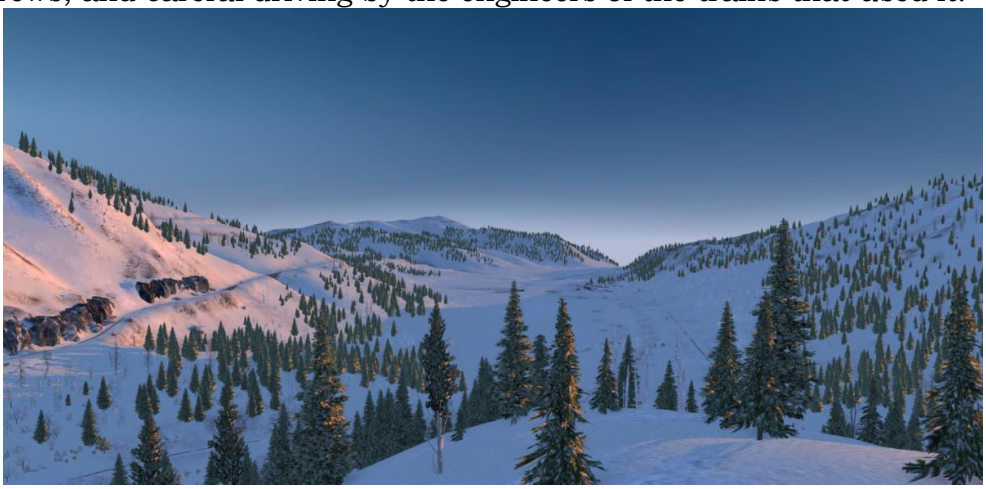
Tolland 1913 Route Development Image by Jango

Tolland Town View 1914 *Final Route Development Phase Image*

There were various enterprises in the valley including mining, ice harvesting and lumber mills. Lumber mills and ranches and the Ice house on the lake for harvesting ice. The DNWP owned six Refrigerator cars that used the ice to deliver produce to the region and back to Denver. There was also a Center for Botanical Research founded at Tolland by a well known professor from the University of Colorado at Boulder, Professor Rollins. He founded the center at Tolland to study the regional botany and forestry and summer classes and workshops were held in the area and in Tolland. There was also a Sawmill located up Boulder Creek at the end of the valley past Tolland that operated a Narrow Gauge Railroad of their own with a small engine and flat cars that carried their products mostly Railroad ties to a transfer platform at the main line as it started up the Hill.

The Hill

The High line over the Rollins Pass which rose up to 12,000 feet was a key feature of the early history of the DNWP and it is the focus of this route presentation. This section of the route known as the Hill was steep with a constant 4% grade and required constant maintenance by the section bosses and crews, and careful driving by the engineers of the trains that used it.



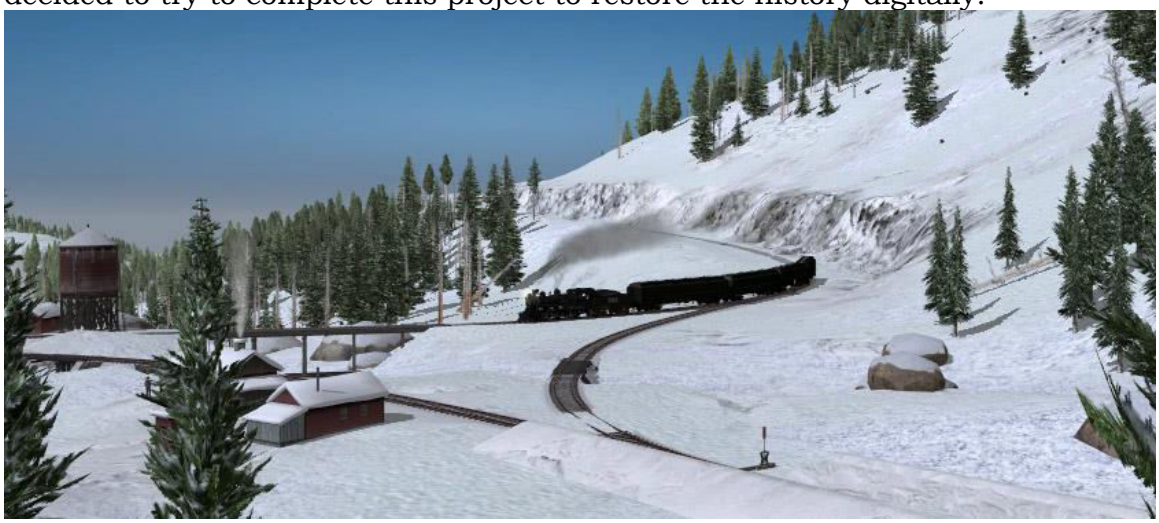
Sunrise over the Hill Near Tolland Image by Jango

Small Freight Passing Newcomb Below the Hill

No. 200 Mallet and Freight on the Hill

There were numerous trestles, service sidings and a careful arrangement of water and coal stops to make it possible to operate steam trains over this demanding pass and it remains a miracle of the technology of that time that they were able to keep the line open for all of the years it was operated. This section of the line was finally mostly abandoned in 1928 when the Moffat Tunnel opened at the end of the valley below near Tolland but the rails remained in place into the 1930s for use in emergencies and was used to get the large Rotaries back to Denver for the last time before the rails and all of the Railroad structures were removed. The remains of the logging camps, mills and even entire towns like Arrow rapidly disappeared and faded into the forest.

Little remains of the extensive infrastructure of the railroad over Rollins Pass today, a few of the trestles remain intact as well as some of the tunnels, and remains of the snow sheds spread across the landscape, some foundations of the structures at Corona, and remains of the square wooden water tower located by Tunnel 30, but little else has survived. That was one main reason we decided to try to complete this project to restore the history digitally.



No. 1 About to Cross the Trestle at Ranch Creek

Image by C. Gerlach

Next up the line was Ladora which was a big lumber mill and small town. The logs were cut in the woods by crews that cut logs marked by the US Forest Service, and then dragged or carried on log wagons to the mills. The logs were cut and sold locally or shipped to Denver and beyond. The lumber men had to be tough and worked long hours often just for room, board, and a small wage. The log wagons were often owned by the operators who worked the teams on contact with the mills.

At Antelope was a large logging camp and a tie yard run by the railroad with section workers. There was a section boss for each part of the line who had workers under him who kept the line in repair, inspected it and fixed damage. At a series of sidings and Ys over the Hill the Railroad has water tanks, tool houses, coal sheds, and worker housing for the section workers and the plow and train crews.

Antelope Flag Stop and Section Camp

Corona was the next big location though it only had about 100 people living there, most of them RR workers and their families. There was a hotel there and the wife of the manager cooked for the entire town. Also there was a depot in the snow sheds and worker housing and pump supplied water from a lake nearby. The Snow sheds at Corona were very large and had a ventilating system but due to the smoke and poisonous gasses created by the operating steam engines when there were 2 or 3 trains parked in the tunnel it became very dangerous and there were many accidents.

The need for protection for the trains and the depot at Corona led to larger and longer Snow sheds being constructed but the ventilation measure attempted also allows snow to enter to the sheds so a continual process of expansion and adjustment let to many measure to try to make the shed system work. The entire complex at Corona including the interior and the platform and services have been carefully researched and re-created in this digital restoration of the route.

Corona Snow Sheds and Quarters Complex 1918

Image by Jango

The next town was Arrow, it was incorporated in 1904 but founded around 1900 by Billy Woods as a lumber camp and he had a mill near by at Sawmill Siding we think was owned and operated by his son in law. Arrow was a lively place and had a beautiful location and was much loved by the summer visitors who came up on special trains. It was a lively place filled with lumber men, railroad workers, laborers, had twelve saloons and card rooms, and bars, and a number of brothels and "sporting houses" as well as housing for the RR workers and their families, and hotels for the visitors. There was a town Marshall and a small jail and a small cemetery that is the only remains of the town now. Arrow served the RR as Section HQ and when the Section moved to Fraser Arrow quickly died. It went from some 200 residents in 1914 to 20 or so by 1915 and one night in 1915 a fire started at the Elk Saloon that some suspect was to get the insurance money and the entire town burned down in one night except for the Depot and the Section house and a few RR buildings. We had to restore to satellite photos and the 20 some surviving photographs and very detailed analysis working with an expert in photo analysis and step by step efforts to uncover and restore the layout of the town.

Arrow 1913

Image by Jango

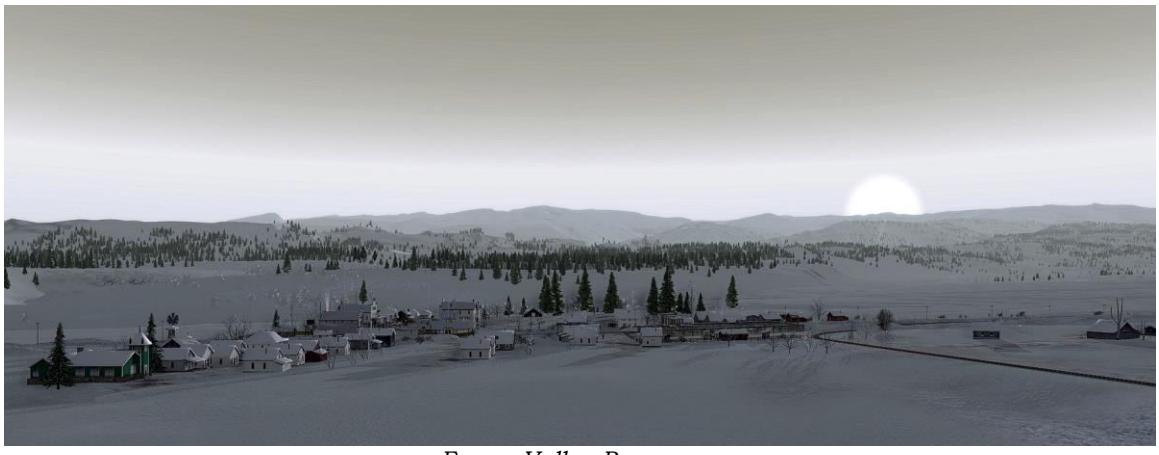
Arrow 1914

We have carefully researched the history and rebuilt it as authentically as we possibly can. Arrow was the most challenging town to restore as there is literally nothing at all left of it, but we feel we have been able to achieve reasonable accuracy with it and the rest of the route. The next major location was the big lumber mill below Arrow at Irvings, started by the Fleming Brothers Lumber company and then owned and expanded by Billy Woods to be quite large. Beyond that was the Fraser Valley and the large town of Fraser.

Fraser Main Street Night View

Image by Jango

Fraser was both a railroad town because of the arrival of the DNWP but also had started as a ranching center and also a town for the lumber mills in the Fraser Valley established to harvest the vast stretched of old growth pine forest that spread throughout the region. This provided a expanding base for the economic development of the region and a steady source of freight for the DNWP Railroad and its service to Denver and to the West.



Fraser Valley Panorama

Image by Jango

Fraser Main Street and Depot *Image by Jango*

That region was therefore both ranching and lumber country. We have included both mills and ranches in this restoration of the route, for the mills and lumber camps we added great detail. One of the major local leaders was Sheriff Cozens, he has been Sheriff of Central City and around 1890 moved to Fraser with his wife and had a large ranch that is still there today as a museum and owned a large store in town. The town grew rapidly once the railroad came and the Midland Lumber Company built a big mill there that was supplied by a flume and a RR line of its own. The mill served as production for a series of lumber camps that logged the forest along the St Louis Creek, and were populated mostly by Swedish immigrants and their families. Many descendants of them remain in the Fraser area today. The DNWP Section HQ was moved to Tabernah just nine miles along the route because it was easier to keep the helper engines there. Fraser shrank a bit but kept going due to ranching and hunting and fishing and was a favorite hunting location for President Eisenhower who visited there often. Tabernash as the Section HQ with a large Engine house, shops and service facilities grew fast. A town developed and grew, many hotels and houses were actually moved there from Fraser and it soon had several hundred people living and working there. Tabernash was very much a railroad town with many DNWP workers and crews and their families living there, as well as lumber mill workers and timber men there as well.

Tabernash Town View from the DNWP Rail Yard Image by Jango

Another large lumber mill, the Western Box and Lumber Company worked with timber cut from the nearby forests that were delivered by an immense log flume and was one of the largest enterprises in the valley.

Tabernash Vista

Continued History of the DNWP (after the era of the Rollins Winter Pass)

Little more of note happened on the DNW&P until one fateful day in 1911. On 18-Mar-1911, David Moffat unexpectedly passed on, leaving the railroad without its visionary. His vice president, William Evans, quickly stepped forth into the leadership role, but one of Colorado's railroading leaders was gone regardless. Despite the dark hour, an odd stroke of fortune landed in the railroad's direction when Colorado Rep. Gaines Allen proposed a bill to have the State of Colorado construct a five mile Main Range tunnel, on the condition that the railroad sign a long term lease. Unfortunately, the governor at the time, a gentleman named Shafroth, failed to sign the bill, which automatically made the issue a public referendum. In the election of September 1912, the bill failed miserably, and the railroad's hopes of eliminating Rollins Pass were dashed.

Earlier that year, on 1-May-1912, another horrible blow befell the line. Unable to service its debt, the line was thrown into receivership under David Dodge, and Pres. Evans was replaced with Newman Erb from Minnesota. The investors realized that the only way to possibly salvage their investment was to continue Moffat's vision. In early December 1912, a contract was let to extend the railroad from Steamboat to Craig in order to tap many of the coal fields along the route. However, in January 1913, the railroad underwent yet another reorganization, at least on paper, due to the more delinquent debt payments. By April 30, 1913, the reorganization had completed, and the Denver, Northwestern & Pacific lapsed into history. From that point forward, the line would be the Denver & Salt Lake Railroad, reflecting the original ambitions of David Moffat carried forward.

By the end of 1913, trains were arriving at Craig, CO, over a recently completed extension of the former Denver, Northwestern & Pacific Rwy, which had been reorganized as the Denver & Salt Lake by the time of its completion. However, the funding had once again evaporated for the continued trek westward from Craig towards the goal of Salt Lake City. World War I would start only a year later, with the United States entry into combat only a few years later. Funding was scarce and revenue scarcer, and as such Erb was forced to resign 16-Sep-1917. While the USRA had poured over 1.3 million dollars into the line for war needs, the line came out from under government control still seriously showing red ink. The labors of hauling freight over Rollins and keeping it open through the winter were chewing up almost a million dollars or more a year that the line didn't have. Meanwhile, on the first day of 1920, the Burlington was threatening to rebuild the narrow gauge Colorado and Southern up from Denver to the Main Range and build the main bore themselves.

By 1921, the road was once again back in the bankruptcy courts, this time fighting for its very existence. Scrapping was a real possibility, as the road hadn't turned a profit and was perpetually failing to service its debt. Even the receives of the time - Boettcher and Freeman - were discussing terminating service with the state Public Utilities Commission. However, with the line carrying almost 24,000 loaded cars in 1920, terminating service wasn't really an option. A solution to the perpetual deficit needed to be found. The courts ordered wages reduced as a cost reduction measure, feeling that the men were paid wages out of line with other railroads, but that wasn't the road's real problem. The real money pit was Rollins Pass, and it simply had to go. Anything with four percent grades and blizzards that could strand trains for weeks at a time needed to be bypassed if the railroad was ever to succeed.

As it would unfold, the Moffat's turning point would also be one of Colorado's worst natural disasters. A series of early summer thunderstorms in 1921 created a massive deluge of floodwaters that turned the normally placid Arkansas River and tributaries into raging, destructive torrents. On the evening of June 3, these torrents ripped through Pueblo, raising the Arkansas over 12 feet above flood stage and destroying everything in a mile-wide swath through the heart of the city. After this calamity, Pueblo wanted the state to put in flood control on the Arkansas, and they got it - with one little catch. Two bills were introduced in a special Colorado General Assembly session on 8-Apr-1922 - one

to fix the Arkansas River's bad temper permanently, and the other to finally build the Main Range tunnel. Thanks to a great deal of political wrangling, with the northern representatives not caring about Pueblo's flood problems and Pueblo's representatives opposing the tunnel, both bills finally passed.

The Main Range Tunnel, now officially named the Moffat Tunnel by the legislation in honor of David Moffat's vision, would finally be built. A 6.2 mile bore straight through the main range of the Rockies, the tunnel would cut off 2500 feet of climbing and descending, 23 miles of extra track, and most of all some twelve or more hours of grueling, dangerous railroading over Rollins Pass. There would no longer be the threat of trains trapped for days or weeks by blizzards or deep drifting snow. Instead, freight and passengers would cruise safely under the Rockies in a matter of minutes. Started in 1924, the first train passed through the massive hole only four years later, on 14-Feb-1928.

Immediately following the stroke of good luck on the tunnel, freight also began to pour over the Moffat Road in 1923. The Routt County coal mining industry was booming, and oil had been discovered at a depth of only half a mile just south of Craig. Aside from the drilling and mining gear going west, the raw resources were flowing eastward. Thirty tankers of oil a day moved by 1924 and that number had doubled by 1925. By 1926, Texaco had built a small refinery in Craig, and as such the D&SL was also hauling refined oil products eastward across the Divide. Financial prospects for the line, having been dire and bleak only six years before, were now much, much brighter. The darkest days of the Moffat Road were past, and the Denver & Salt Lake Railway was incorporated in Jan 1926 to assume the still-in-receivership Denver & Salt Lake Railroad's assets.

The Moffat Tunnel was a monumental step forward, but with the D&SL in its current configuration (ending at Craig, CO), it was still a very expensive hole on a railroad that went nowhere important. The D&SL connected with no other roads or major cites west of the Continental Divide. So, as part of the Moffat Tunnel project, the D&SL and D&RGW were strongly urged to look at linking their lines. The most likely point for this was the easy 45 miles of water-level route between Bond, CO, and a point near the confluence of the Grand and Eagle Rivers on the D&RGW's standard gauge mainline over Tennessee Pass.

This route, to eventually be known as the Dotsero Cutoff, wouldn't be built until several years after the Moffat Tunnel, but was eventually pushed through as a condition of the D&RGW's purchase of the D&SL in 1930. In June of 1934, the two systems were linked, and what we know today as the Rio Grande's standard gauge network was finally completed.

The railroads remained separate on paper for almost two more decades, but during that time there was no doubt things had changed. The Rio Grande wasted little time in bringing the old Moffat Road up to standards - lining tunnels, laying heavier rail, and realigning sections with better grading and straighter routes. The D&RGW had acquired a much faster route from Denver to Salt Lake, and was doing everything possible to take advantage of it. Eventually, the D&SL itself would fade into D&RGW corporate history. Finally,

on 11-Apr-1947, the D&SL was officially folded into its parent road and ceased to exist.

Conclusion

Some of this summary is courtesy of the DRGW Net and personal research and consultation with experts. Much of the history I have learned has been greatly assisted by John Emmot and Ken Shaver both members of the Denver and Salt Lake Historical Society, and also greatly helped by the publication of the Society the Corona Telegraph and also by two excellent books by Reverend Bollinger on the Moffat Road, The Rails that Climb and The Moffat Road. There are also two very good books by Bob Griswold on the details of the history of the route and the Railroad published by the Rocky Mountain Railroad Club.

This is a Historic Preservation Project which endeavors to present the DNWP Railroad over the Rollins Pass also known as part of the Moffat Road as it existed thru a specific period in its history, between 1910 and 1916, with the best accuracy that our team and the best authorities we were able to work with could establish. We hope to continue to improve on the accuracy and the breadth of this project as new sources are found or presented to us, and new resources developed. There is hope that some new technology may help as well, side scan ground radar methods may allow us to determine with more accuracy some of the sites presented in this project such as Arrow of which nothing remains today other than the small graveyard site and some scars visible by satellite and aerial survey. We hope to help preserve the oral history and the anecdotal history associated with the towns, locations and sites along the route and hope someday to possibly see the route given an official status as a historic and cultural treasure symbolizing the remarkable successes of early 20th century technology and cultural expansion into what was then virgin wilderness that benefited not only Colorado but the entire nation then and since.

Sunset Light - Fraser 1918

Chris Gerlach
on behalf of the Rollins Pass Winter Development Team and GianFranco, "Jango"
Messaggi *its creator.*

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The White Desert
(1925) American
B&W : Seven reels / 6464 feet
Directed by Reginald Barker

Cast: Claire Windsor [Robinette], Pat O'Malley [Barry], Robert Frazer [Keith], Frank Currier [Saul MacFarlane], William Eugene [Foster], Roy Laidlaw [engineer], Sojin (Sojin Kamiyama) [the Chinese cook], Priscilla Bonner [Mrs. Foster], Snitz Edwards [Runt], Milton Ross [Doctor Carter], Matthew Betz (Mathew Betz) [Buck Carson]

Metro-Goldwyn Pictures Corporation production; distributed by [?] Metro-Goldwyn-Mayer Distributing Corporation? / Scenario by L.G. Rigby, with comic relief by Lew Lipton, from the adaptation by Monte M. Katterjohn of the novel The White Desert by Courtney Ryley Cooper. Cinematography by Percy Hilburn. Presented by Louis B. Mayer. / © 22 July 1925 by Metro-Goldwyn Pictures Corporation [LP21668]. Released [?] 4 May or 12 July? 1925. / Standard 35mm spherical 1.37:1 format.

Drama.

Survival status: (unknown)
Current rights holder: (unknown)
Keywords: Railroads - Tunnels - USA: Colorado
Listing updated: 11 June 2008.
References: Eames-MGM p. 20; FilmYearBook-1926 pp. 22, 59 : Website-AFI.

The White Desert / Reginald Barker [motion picture]

Title
  The White Desert [motion picture]
Director
  Barker, Reginald
Actor
  Windsor, Claire
Dates Issued
  1925
  22/07/1925
Type of Material
  moving image
Forms
  motion picture
  film reel
Physical Description
  7 reels; 6,464 ft.
Notes
  Director: Reginald Barker
  Star: Claire Windsor (Robinette)
  Archive: George Eastman House (Rochester) [Usr]
  Copyright claimant: Metro-Goldwyn Pictures
  Registration number: Lp21668
  Source: MGM donor
  Holdings: U.S. Archive
  Studio: MGM
  Completeness: complete
  Studio holding: G
  Format: Format Unspecified: Usr
  Record No.: 42636

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Denver Public Library Digital Collection http://digital.denverlibrary.org/
Grand Valley Historical Association. 180 S. 2nd Ct. Parchute, CO 81635
The Smithsonian Institution Museum Collection, Washington D.C.
ALCO Locomotive Company - Records and Builders Photos and Plans
Rocky Mountain Railroad Club, P.O. Box 2391, Denver, Colorado 80201

Rollins Winter Version Route Development Team 2016 - 2017

Staff:
GianFranco "Jango" Messaggi - Route Creator and Builder - Project Leader 2004 - 2016 - Road Master
Chris Gerlach (CrisGer) Project Lead, History and Asset Making Lead, Site Planning, Location Design, 700 + Structures-Objects Created - Moffat Road Historical Restoration Lead 2013 - 2016, Rolling Stock Development 2013 - 2016
Carlo "Pendolino" - Technical and Communications, TrainzItalia Administrator.
Bob - DennR ID:450495 - Project Lead - Trainmaster - Chief Project Engineer and Technical Consult- Historical Research - Developed Entire Rolling stock and Engine library and loads - Scenario Design
Gman347 - Paul Gorski - Architectural Renders-Historical Research-Rolling Stock & special structures Construction
Ettore48 - Italian Beta Tester

Key Historical Research and Sources
John Emmot - (Denver Salt Lake Historical Society) Historical Background, rolling stock design and testing, site history, Railroad operations, Engine history and operations, photo analysis and sourcing, donated many personal photos and 3 years of consultation
Ken Shaver - Publisher and Editor Corona Telegraph, Denver & Salt Lake Historical Society key research and assessment and consultation
Dean Steam - Historical sourcing, Curve Data, Engine operations data, photo sourcing and research and analysis

Key Asset Creation and Sourcing and Assistance
Wayne Campbell - Created the rolling stock, and assisted in conversions: 100 + freight cars, 20 Passenger cars
Ben Neal - bdaneal - Engines, tenders, rolling stock
Radu C. - colorado71 - Use of Engine for DNWP 200 series 2-6-6-0
Ben Dorsey - Moo Cars
John Fitzpatrick - jjfitz1 Tank cars
Tom Landers - Standpipe
andi06 - Winter track
Pencil42 - Water Tank, help with conversions and created 2 trucks for us
pcas1986 - helped conversion of Passenger coaches and texture adjustment
whitepass - advised on Passenger coach design
normhart - advised on rolling stock and asset selection
trainboi1 - donated source files for Climax engine adjusted final model
JCitron - tested assets
captainkman - helped with conversions

vulcan - helped with his MOW equipment and updates for the files
Creations UK - Figures and Scenery Assets
Reg Furness (RefMan) - concept for figures and textures
John Fleming - Fraser Depot mesh and consults.
Tim Muir - Advice, model reference and texture templates and consults
Steve Thompson - Structure Textures and Sawmill consults
Linda Irene Tingvik - Much help with Textures, Colorado historic structures and design

Special Assets:

Rollins Pass Winter Route - GianFranco "Jango" Messaggi TrainzItalia- Route Builder - Project Leader 2004 - 2016 - Roadmaster. A Set of Installable files in CDP format suitable for PC computer requiring adequate level of machine and video card from TrainzItalia Forum and site. No commercial use allowed. A Summer/Fall Version of the route is planned. Assets included in CDP format. Support available from the Rollins Pass Team thru related Web forums.

DNWP Stock Set 10.1- 50+ Historically Accurate Engines, Tenders, MOW Equipment, Passenger Coach set, 120+ Freight Car Set and Loads, Colorado Southwest and Utah RR Rolling stock set, Jenkins Mill NG Stock set. Available for free no commercial use allowed. Designed to work with T:ANE version of Trainz Train Simulator, Auran Co.

DNWP Data Codex 2.0 - Full Resource Set of Photographs, Plans, Maps, Charts, Layouts and history of the DNWP - DSL RR 1904 - 1919 including Engineers Maps and plans, Town and site resources and data, DNWP Paint and Road Number template set and complete number set and fonts, Rolling stock plans and data, Technical operations data, PDFs and USGS Maps and charts of the route and region. Available upon qualified inquiry.

Historical Summaries - Various Documents, plans, maps and data sets available upon request by qualified inquiries.

Custom Route Assets
800 + Winter and Summer Version Structures, Objects, Vehicles, Figures and plans for specific sites and regions including Tolland, Arrow, Irving, Fraser, Tabernash, Lumber Mills, Lumber Camps, Ranches, in CDP format. Included in the Rollins Pass Set 700 are by Chris Gerlach, rights restricted, with some assets by additional past and present team members including Paul Gorski, Jango Messaggi, and a number of built in assets from Trainz library.

Development History Set - Images and development resources, layouts, plans, maps and elevations. Available upon request from qualified inquiry.

Contact Information:

Route Creator:
GianFranco "Jango" Messaggi TrainzItalia Site and Auran Trainz Forum (Any Questions on Route and Project)
http://www.trainzitalia.com/forum/index.php?/page/index.html

Project Leads:
CrisGer - TrainzItalia Forum and Trainz forum (Historical Questions, Assets and Route Design and Development
http://www.trainzitalia.com/forum/index.php?/page/index.html

Bob - DennR ID:450495 - TrainzItalia & N3V Forums (Technical Operations, Scenario Operations, All Rolling Stock and Loads, Historical Background and RR Operations.
http://www.trainzitalia.com/forum/index.php?/page/index.html

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