

Virginia Scenic Railway– Staunton to Ivy

Welcome Information – 02:00

Hello everyone and welcome aboard the Virginia Scenic Railway, hosted by the Buckingham Branch Railroad! Today, you'll be enjoying a 62-mile round-trip journey from Staunton to Ivy. This route's beginnings date back to 1836 and was completed by the Virginia Central Railroad. More to come later on the history of the line.

Ivy is located in Albemarle County. Ivy Creek flows through this area of western Albemarle County. Present day Ivy was once known as Woodville, named after the prominent Wood Family between 1826 and 1851. With the arrival of the railroad in 1851, the rail stop was originally named Woodville Depot, later changed to the Ivy Depot by 1859 after Ivy Creek and later shortened to just Ivy by the 1950s.

Along the way, you will pass through the famous 3984-foot long Blue Ridge Tunnel as well as the 100-foot long Little Rock Tunnel. You will also get up close and personal with numerous rock cuts dug out by the Blue Ridge Railroad in the 1850s and pass by hidden orchards of Albemarle.

During today's trip, we will be pointing out some interesting historical facts about the communities through which we pass. Be sure to listen for the *train whistle* and that will be your indication of an upcoming narrative.

So, sit back, and enjoy the trip, as we travel over one of America's most historic railroad routes.

Staunton

Our trip begins in Staunton, located in Augusta County. Staunton was first settled in 1732, the Virginia General Assembly established it as a town by 1761 and was later incorporated by 1801. Staunton is named after the wife of colonial governor Sir William Gooch, a Mrs. Lady Rebecca Staunton.

Prior to the coming of the railroad, farmers in the area had no way to get their goods to markets in eastern or western Virginia. So, that is exactly why the railroad was built! When the railroad was completed, farmers could sell their goods to stores in Charlottesville, Richmond, and many other cities. The focal point for shipping those goods was at the local railroad station where boxcars would be loaded and then shipped to their destination. The railroad allowed the towns in the area to grow and prosper.

During the Civil War, the Staunton played an important role as a manufacturing center, troop staging area, and supply depot. Staunton is the birthplace of the 28th President of the United States, Woodrow Wilson, and the location of his presidential library. Staunton is also home to the country music legends The Statler Brothers and a few educational organizations including Mary Baldwin University and Virginia's School for the Deaf and Blind. Today, Staunton has a population of about 25,000 people

When the Virginia Central Railroad laid tracks from the Blue Ridge mountains to Staunton by 1854, it also established a locomotive and car shop in the area now called C&O Flats located on the western side of Staunton. Today, C&O Flats is the location of Buckingham Branch's rail yard and dispatch center. Since 2004, Buckingham Branch has provided local freight service to businesses in and around Staunton as well as delivered and or receives freight cars with the Shenandoah Valley Railroad which is another short line railroad located just on the northeast side of Staunton. Staunton is also a stop for Amtrak's famous passenger train, The Cardinal, which has two trains running the same route, just one running east to west; the other west to east. These trains route between New York down through Washington DC, Charlottesville, Staunton, and Clifton Forge Virginia west/ north west to Huntington, West Virginia on its way over to Cincinnati, Indianapolis and lastly Chicago in a large "U" type shape. It's roughly a 26-and-a-half-hour journey. The Cardinal stops in Staunton three times a week - Wednesday, Friday and Sunday.

Augusta Co-Op - 01:05

If you look off to the south side of the train car, you'll be able to spot one of Buckingham Branch's freight customers, the Augusta Coop. The Augusta Coop started in 1929 when 205 farmers gathered at Weyers Cave, a little rail stop just north of here. The farmers decided to join together, and collectively borrowed \$3,000 dollars to be able to effectively market and distribute agriculture products and farm supplies to local patrons. In 1932, the Co-Op expanded. Then, 20 years after its original opening, the coop created a retail store and corporate offices, moving everything into the location you see here today in Staunton. In 1972, Augusta Co-op built a state-of-the-art steel feed mill that you'll be able to observe as we go by. The mill manufactures over 23,000 tons of feed annually. The liquid fertilizer plant was added in 1975.

It may sound like an "odd word", but **Transloading** is a shipping term that refers to the transfer of goods from one mode of transportation to another that's en route to an ultimate destination. Transloading can provide significant cost savings to manufacturers producing products often purchased or shipped in large bulk amounts or are heavy in weight. Rail can provide a significant savings not only in cost, but reduces truck travel on major interstates and is environmentally friendly as compared to other modes of transportation when compared to the amount of tonnage moved per mile per gal of fuel.

West Brand to East Brand - 00:15

We are now approaching Brand Siding. This is a track siding that's slightly over one mile in length. This location is used for trains to be able to safely pass each other.

Waynesboro - 01:30

We are now approaching Waynesboro. Formed in 1798, the City of Waynesboro is located along the western edge of the Shenandoah Valley in Augusta County and has a population of over 22,000. It's the largest city between Staunton and Charlottesville. Waynesboro took its name from General Anthony Wayne, a famous Revolutionary War soldier who later commanded troops in various military campaigns, including the Battle of Fallen Timbers in Maumee, Ohio.

Waynesboro is close to several outdoor recreation opportunities, such as: the Skyline Drive, the Blue Ridge Parkway, the Appalachian Trail, and the Blue Ridge Tunnel Walking Trail. And surrounding all those wonderful outdoor experiences, you'll find numerous craft breweries and restaurants to recharge your battery. Then stroll through the quaint shops and pick up something to remind you of your trip here.

If you happen to look out and down from the side of the car, you may be able to catch a glimpse of railroad tracks beneath us as we pass over them. This section of track is part of the 2,500-mile Crescent Corridor belonging to the Norfolk Southern Railway. This corridor spans from the state of Louisiana to the state of New Jersey providing a fast, direct, green alternative for moving commodities from the southwest to the northeast. The portion of the corridor you'll be able to observe runs from Roanoke up through Waynesboro on its way to Shenandoah Yard in Page County.

This area of Waynesboro was once known as Basic City. Formed in 1890, it was named after a process used in steel manufacturing. Between 1890 and 1893 this area boomed as two railroads crossed here at a point called "the Iron Cross" with the two railroads being the Virginia Central - later known as the Chesapeake and Ohio and the Pennsylvania Railroad - later known as the Norfolk and Western and then Norfolk Southern.

Basic City was once larger than Waynesboro, however the depression between 1893 and 1896 resulted in many of the new industries closing. In 1924 Basic City consolidated into the adjacent town of Waynesboro. The name then became known as Waynesboro-Basic, later shortened to just Waynesboro by 1948. The area once known as Basic City became one of several lost towns in Virginia.

As we start to climb towards Afton Mountain, down the embankment out the south side of the car is just one of the many craft breweries in the area. This local attraction is known as Basic City Beer. This brewery bears the name of this long-ago area.

Blue Ridge Tunnel - 04:30

As we ascend the mountain, we are getting ready to pass through the Blue Ridge Tunnel. If you listen for several long horn blows, that's an indication we are getting ready to enter the tunnel. These long whistle blows are done as a warning to anyone who may be walking inside the tunnel to get out as a train is coming! The tunnel does have a gutter system beneath the track bed on each side as well as a few spots in the wall where any individual who may not be able to get out of the way in time can duck into in order to not be smooshed between the train and the close clearance of the tunnel walls.

The Blue Ridge Tunnel was constructed between 1850 and 1858 under the direction of Colonial Claudius Crozet. Crozet was so chosen as the Chief Civil Engineer by the Blue Ridge Railroad which was overseen by the Virginia Board of Public Works, an organization which he had served on for several years. The Board of Public Works worked under the direction of the Virginia General Assembly which had chartered for the purchase and financing of the railroad.

More to come on Claudius Crozet later.

Over 800 Irish immigrants and 40 enslaved African American laborers were used to build the Blue Ridge Tunnel. Nearly 200 deaths occurred during its construction due to accidents and disease. The tunnel was the westernmost and longest of four tunnels Claudius Crozet was charged with engineering to cross the Blue Ridge Mountains at Rockfish Gap. The other three tunnels were called the Little Rock Tunnel, the Brookville Tunnel, and the Greenwood Tunnel. The original Blue Ridge Tunnel was 4237 feet long. At the time of its construction, it was known as the longest tunnel in the United States. From the eastern entrance, the tunnel slopes upward; from an elevation of 1430ft.; to an elevation of 1500 ft. at the western end.

Claudius Crozet's plan to construct the tunnel consisted of teams of workers advancing from both sides of the mountain, each team progressing roughly 26ft per month despite the use of three eight-hour shifts. Construction of the tunnel was done by drilling holes into the rock using a hand drill and hammer. The drill bit was held by a person called the "shaker". His job was to turn the drill slightly after each swing, and give it a shake to flip out the rock dust from within the hole. The person hammering the drill bit was the "steel driver". He swung his hammer as hard as he could to pound the drill into the rock. Black powder was the explosive used during this time, as dynamite had not been developed yet. Mechanization had not been developed

either, so after each explosion, the men had to pick up the pieces by hand, and put them into a cart to be hauled away.

The workers were tasked with creating a tunnel for one railroad track that was 16' wide and 20' high. The design was elliptical shape, seen as an advantage in providing adequate clearance, support for the tunnel roof and cost less to construct. Now you would think blasting through solid rock was the most difficult part of the tunnel project. But dealing with "softer rock" turned out to be much more challenging. When they encountered solid rock, there was no need for additional bracing to create a roof for the tunnel. But soft rock did require reinforcing the roof. The only way to do that was to use arching brick to shore up the ceiling in the soft rock areas.

During construction of the western portal, workers exposed a fracture filled with water about 900 feet in. As a result, all these years later, the tunnel constantly stays wet. Ditches were added to the tunnel to funnel the water out.

Workers also encountered ventilation problems which were remedied through the use of a ventilating device so named after its inventor Sir John Burgoyne. This device was powered by mules on a treadmill and allowed work to continue since constructing vertical ventilation shafts to this depth.

Six years after construction began from on both sides of the mountain, the two portals finally converged about 700 feet below the surface. On Christmas Day, 1856, crews drilled a hole through. It took an additional two years after breaking through and converging, for a train to be able to run through the tunnel.

During World War II, freight and passenger traffic swamped the railroads. In response to the demand for the increased rail service, the C&O Railway opened a new Blue Ridge Tunnel in 1944, parallel to the original tunnel. After opening the new tunnel, the original Blue Ridge tunnel was retired. This newer tunnel is 3,948 ft in length.

As we travel from the west side to the east side, if you are able to look out the rear of the train, you will start to see the westward portal disappear as we go around a curve within the tunnel. As we near exiting the east side portal, the west side portal is no longer in sight. The same holds true in reverse when entering the tunnel from the east side, the west side opening is nowhere to be seen.

With the train speed you are riding at today, it takes about one-minute, forty-five seconds to two minutes to go from one end of the tunnel to the other.

In November 2020, the Claudius Crozet Blue Ridge Tunnel Trail Foundation in conjunction with the City of Waynesboro, Albemarle, Augusta, and Nelson Counties reopened the original tunnel

to create a walking and biking trail. As we exit the portal of the tunnel on its east side, out the north side of the passenger car you should see a black fence, walking path and a parking lot near the Afton Depot. This is so named the Blue Ridge Tunnel Trail where visitors can take in not only nature, but railroad history.

Today, only two of the four tunnels constructed by the Blue Ridge Railroad under the guidance of Claudius Crozet remain as operating tunnels - the Little Rock Tunnel and the Blue Ridge Tunnel. The others have fallen away and been completely opened up. The remnants of these tunnels are some of the rock structures we cut through today on the east side of the tunnel.

West Afton to East Afton - 01:00

Often the Blue Ridge tunnel is referred to as the Afton Tunnel; but the Blue Ridge Tunnel doesn't actually go through Afton Mountain. Rather it passes through the southern end of what's called Scott Mountain. Rockfish Gap is the holler that separates the Scott and Afton Mountains. But when you look down at the peaks of the two mountains, they seem to be right up against each other.

Afton Mountain sprawls between both Albemarle and Nelson counties and appears just east of the Blue Ridge Tunnel. As the Blue Ridge Railroad made progress from west Charlottesville to Waynesboro, Afton station became the outlet used by area farmers to ship their products to markets in the east.

Today, tourists particularly enjoy visiting Afton Mountain, Rockfish Gap, as well as The Blue Ridge Parkway, and Skyline Drive. The area has become known for its many vineyards and wineries; breweries; and nearby outdoor recreational opportunities. The wooden station-like building you see on the north side of the track is actually not an original railroad structure, but was built by a dentist as his office to resemble a railroad station. The Blue Ridge Trail has a parking lot and can be accessed at West Afton. The Afton train siding is over $\frac{3}{4}$ mile long, and provides a location for trains to safely pass each other.

Little Rock Tunnel 00:50

If you listen for several long horn blows, that's an indication we are getting ready to enter what's known as Little Rock tunnel. This is one of the four original tunnels constructed by the Blue Ridge Railroad to get trains from Ivy over into the Shenandoah Valley. These long whistle blows are done as a warning to anyone who may be walking inside the tunnel to get out as a train is coming! Unlike the Blue Ridge Tunnel, this tunnel does not have any areas to duck down or duck out of the way. This tunnel has very close clearance between the railcar and rock. Luckily this tunnel is only 80-feet in length and daylight can be seen end to end. Rock in this area of the

mountain was much more dense and required no arching brick lining to support the tunnel roof. To this day, it still has no supporting features. In 1944, when the Chesapeake and Ohio chose to abandon the original Blue Ridge Tunnel for a newer, larger tunnel; the Little Rock Tunnel was expanded to accommodate larger trains. What you see today is the result of that expansion.

Despite being a quaint little tunnel, this tunnel lays claim to an incident dating back to the early 1900s.

On September 30th, 1907 the Frank A Robbins Circus train was making its way back from Charlottesville to Staunton during the late evening hours. The train had been assigned an engine for its return trip to the Valley that may have been the predecessor of “the little engine that could.” As the mountain grade increased, the engine’s drive wheels began alternately to slip and grab, creating a jerky ride for both man and beast. The train struggled through the first two of four tunnels along the Blue Ridge Railroad.

Onboard the train, no crew members were aware that the continual jostling and swaying had loosened some of the blocks securing the cages and wagons on the flatbed cars. Then, partway through the Little Rock tunnel, the train jerked to a sudden stop.

Train crew and circus staff got off the train with their lanterns and headed towards the rear of the train which was still in Little Rock tunnel. As they approached the tunnel, their concern worsened as sounds of howling animals mingled with human voices moaning could be heard.

Squinting through the blackness with only lanterns, a mass of jumbled metal, moans and animal noises lay within Little Rock. Several of the heavy stacked animal cages had come loose and a top cage having turned sideways inside the tunnel was flung off the top of another cage and into a steam piano wagon on the car behind it, partially crushing the wagon.

Unbeknownst to the train and circus crews were five stowaway boys who had snuck away from Staunton to Charlottesville to watch the Circus and had snuck aboard the train for its return trip in the steam piano wagon.

Two of the boys were able to climb from the wreckage but were badly shaken. Two others were found inside the heavily damaged steam piano regaining consciousness. The fifth boy was found underneath the toppled cage, crushed.

Along with this one human fatality was a tiger who did not survive having been in the flung cage. Other animals were also injured when the train was jolted to a sudden stop by the cage getting wedged and flung inside the tunnel.

The young deceased boy's body was left at the Afton Depot for his parents to retrieve. Injured animals were treated by veterinarians in Basic City. Arriving half a day late to Staunton, the circus train finally made its way into town, skipping the customary parade and several animal acts, yet performing a condensed show - proving the old adage, "the show must go on!"

They say on some nights, you can hear the sounds of a tiger howling in the night – possibly that of the fateful circus train wreck in 1907.

KellyBronze Turkeys

Out the North side of the car, you may catch a glimpse of some turkey flocks in the field. Those turkeys are known as KellyBronze. The KellyBronze is a unique heritage breed developed by three generations of the Kelly family in England. It has an unparalleled flavor, juiciness and remarkably fast cooking time. It's nicknamed the "Rolls Royce of turkeys".

In 2012, Paul Kelly from England brought their heritage breed of turkeys to the United States, partnered with locals Judd and Cari Culver of Heritage Glen Farm here in the outskirts of Crozet. The farm produces 1000 turkeys per year and has recently been licensed to sell outside of Virginia. The birds are handled with utmost care, from egg to oven, ranging freely on the pastures and woodlands of the Blue Ridge mountains, without hormones or antibiotics. These birds take twice as long to raise as compared to conventionally raised turkeys. This additional growth time contributes to their better than normal fat or marbling. When it comes time to process for Thanksgiving or Christmas, these birds are hand plucked, dry-aged like wild game which reduces moisture allowing for better flavoring.

If you want one of these birds, better open your wallet as they sell for \$150-200 per bird.

West Crozet to East Crozet - 01:50

As we travel through the outskirts of Crozet, you will be able to see apple and peach orchards on the north and south side of the train car. These trees were grown so successfully they actually helped establish the town of Crozet. Farmers in this region would take their apples and peaches to the Chesapeake and Ohio railway station and ship them to markets. The former railway station is now a library and gift shop. The siding today in Crozet is still used for trains to safely pass each other.

We're approaching the town of Crozet, so named for Claudius Crozet, the civil engineer charged with building the tunnels along this route for the Blue Ridge Railroad during the 1850s. Born in France, Claudius served in Napoleon's army. In 1816, he emigrated to the United States where he joined the U.S. Army at West Point, NY. At West Point, Crozet became a distinguished

professor of engineering. In 1839, he was one of the founders of the Virginia Military Institute in Lexington, VA and became its first Board of Visitors President. One of Crozet's crowning achievements was to engineer and direct the construction of the Blue Ridge Tunnel at Rockfish Gap for the Blue Ridge Railroad. It took him 8 years to complete that tunnel, which he started in 1850. Upon completion, the Blue Ridge Tunnel was one of the longest tunnels in the country.

In 1953, Morton Frozen Foods established a plant in Crozet, which was later bought by ConAgra Foods and operated until 2000. Today, portions of the former food plant are occupied by MusicToday, Inc. and Starr Hill Brewery. Crozet sponsors several festivals throughout the year. Crozet also puts you very close to numerous outdoor recreational opportunities. The famed boxer Muhammad Ali, once owned a farm just outside of Crozet.

Mechum's River - 00:40

We're approaching an historic spot on our route, Mechums River Bridge. This bridge spans the Mechums River and Rockfish Gap Turnpike, also known as US 250. It's the oldest bridge on the part of the railroad you are riding on today. It was built in 1889 and has been regularly upgraded and strengthened over the years, making it safe to handle the heavy trains of today. Mechums River was a very small community, but in its heyday, it sported a railroad telegraph office station. It is the point at which, in 1851, the Blue Ridge Railroad began building west towards Waynesboro.

West Ivy to East Ivy - 01:35

We are approaching the area known as Ivy, our run around point for this excursion. Today, our trainset will come to a complete stop at which point our locomotive will separate from the train and go up and come down the 3,940-foot siding in order to swap ends on this train to head back towards Staunton.

Ivy is home to Meriwether Lewis. Born in 1774, Lewis was born on the Locust Hill Plantation owned by his family. The Plantation was near Monticello, home of the future U.S. president Thomas Jefferson. Meriweather became known as an American explorer, soldier, politician, and public administrator, most notably recognized for his role as the leader of the Lewis and Clark Expedition. Meriweather Lewis was 27 when he set out on this expedition in which he acted on behalf of the United States as appointed by then President Thomas Jefferson. Jefferson had tasked Lewis to explore the Louisiana Purchase and claim the Pacific Northwest and Oregon Country on behalf of the United States before European Nations did. Their mission was to explore, establish trade and bring sovereignty over the natives living in this new territory.

For his efforts, then President Thomas Jefferson appointed Lewis as Governor of Upper Louisiana in 1806.

Ivy is also home to four landmarks listed on the National Register of Historic Places including the Blue Ridge Swim Club, D.S. Tavern, Home Tract and Spring Hill. Ivy also played a pivotal role in the American Civil War. Today, Ivy offers an alternative to the hustle and bustle of nearby Charlottesville which is less than 10 miles to the east.

Uncoupling Procedure and Recoupling:

We've come to a stop so our train crew can do what's called, "Run Around the Train". Now, this doesn't mean you'll see any of our train crew physically get out and run around the train. "Run Around the Train" is a railroad phrase for the process of decoupling the locomotive from one end of the train, and recoupling it to the other end.

Procedures for a run around move are simple and safe. It begins by stopping the train. The Conductor manually tightens the brakes. You may hear a ratcheting noise when he is doing this. That is the chain being drawn tight, applying the brake shoes to the wheel. After the shoes are tightened, the locomotive can bump slightly against the train car to make sure the brake shoes are holding the train car in place. Last thing we want is a runaway coach car....

After the brakes are verified as applied, the conductor will cut the air supply off to the passenger car from the engine and separate the two pieces of equipment. The conductor communicates with the engineer that he is in a safe spot; that he has opened the knuckles; and that the locomotive can now separate away from the passenger car.

Trains do not rely on brake fluid. Instead, all braking is applied through movement of air throughout the train. Each locomotive is equipped with its own air compressor. This compressor generates the air that is then moved from the air tanks on the locomotive through a pipe to a black hose which you see at the ends of each and every locomotive and or freight and passenger car. They are called air lines. These air lines are connected manually by our conductor and they are held together by a device known as a glad-hand. Think of a hand shake, each end of an airline has a glad-hand that can lock together with another glad-hand. Each and every car is coupled together not only with what is called a knuckle, but also by air lines. When our Locomotive engineer applies the brakes, he can release pressure through the air lines to not only apply braking to the locomotive, but also braking to the rest of the train in the consist.

Now, back to the run around procedure..

As the engine separates from the train, the switch for the siding up ahead is controlled remotely from the Buckingham Branch Dispatch office in Staunton. Signal systems much like a stop light on the highways are used to communicate with trains. When the light is green, a train can go past. When a light is yellow, a train must slow and prepare to stop, and when a signal light is red, it must stop – not going past the red light. These colored lights are operated from our dispatch

office. Communication of where the train is on the track is also done through the rail. The rail acts as a conduit to transfer a signal back to the computer software, indicating to our dispatch team where the train is.

Dispatch teams communicate with each train engineer, letting the engineer know what's up ahead and whether they have permission to proceed in addition to the signal light. Here, our engineer will communicate with dispatch via a radio/ walkie talkie to verify the train can proceed out of one track and come down another to "run around the train." Once the locomotive clears the switch point, the engineer can change direction of the locomotive simply by moving a lever, going from moving forwards to going backwards. The engineer can see out both ends of the engine. Locomotives can run safely forwards or backwards! As the engine passes, be sure to wave to our train crew and see if you get them to sound a horn!

As the engine heads back to the other end of the track, there again, our dispatch team will remotely throw the switch for the locomotive, aligning the switch so the engine can come onto this track. As the locomotive approaches, the engineer will slow down the speed in preparation for coupling to the other end of the passenger car. As the engine approaches, the engineer is watching carefully to see how close they get in order not to bump the car too hard when recoupling to the passenger car. As the engine couples, you may feel a slight bump of the car. This results when the knuckle on both the passenger car and locomotive lock up. A locking pin drops between both knuckles, preventing them from opening. When our engine is coupled to the passenger car, the conductor will ask the engineer to give a little tug on the passenger car and see if they separate. This is done as a check of the locking pin.

Finally, the conductors secure the air lines from the engine to the passenger car.

Once the air hoses are attached, the hand brakes can be released from the passenger car and we are ready to head back out for the return portion of our trip.

Locomotive Power and Speed:

The Buckingham Branch relies on diesel powered locomotives as do most railroads operating today. The locomotives used today are more efficient and cheaper to operate and maintain as compared to steam engines of yester years. The maintenance required for boilers and wheels and moving parts on steam engines cost large sums of money and many many hours of work to tear down, clean and put back. *IN* addition, steam engines were labor intensive, requiring multiple men to operate – whether it was a job at the throttle, a fireman feeding the fire. Running multiple steam engines together for more pulling power also meant crews for each steam engine.

However, multiple diesel engines coupled and operating together are able to communicate between each other with only one crew in the front locomotive.

When diesel engines entered the railroad industry around the 1940s, railroads were quick to catch on to their cost savings whether in train crew size, fuel source, maintenance and repair. Diesel locomotives throughout the ages have taken on many different shapes and styles. There have really only been a handful of manufacturers who ventured into this market to build these powerful machines.

Today's diesel engines can generate upwards of 4-6000 horsepower and 137,000 foot pounds of traction effort. Traction effort is defined as the amount of linear output force (or how hard it pulls) to get up and going. More modern diesel locomotives also weigh in excess of 390,000 pounds.

Locomotives on the Buckingham Branch and Virginia Scenic Railway often had previous lives dating back to the 1950's up through the 1980s. These locomotives began their careers operating for other railroads before our railroad acquired them. It's often much cheaper to purchase an older locomotive and fix it up as compared to buying new. New locomotives today cost in the millions of dollars to purchase just one. Over the years, these locomotives have been modified slightly, but overall are still the workhorses they were created to be. Within our fleet of 21 locomotives, most average around 2000 – 3000 horsepower, can produce roughly 50-60,000 foot pounds of traction effort and weigh on average 250,000 lbs each. The horsepower and tractive effort is produced through its 16 cylinder diesel engine generator which turns an alternator which creates current. It's the use of current, or electricity, that actually turns the wheels to make a locomotive move.

Average speed for today's trip will be about 25 mph. Although we are permitted to run upwards of 40 mph on this line, we want to take you on this journey at a fun and adequate speed for viewing the countryside. Freight trains on this line you may see, such as CSX Transportation or our own local Buckingham Branch Freight train can run upwards of 35-40 mph as well. Amtrak trains however have permission to run upwards of 60 mph on this line!

Rail car types:

We are often asked what kind of freight car is that? On the Virginia Scenic Railway, you may see a variety of cars, but certainly not all the types of railcars out across the United States.

The car you are in today is a passenger car. These cars are designed to carry people, the most precious commodity on the railroad. After passenger cars, there are freight cars. On the Buckingham Branch the freight car types vary from boxcars, to tank cars, to covered hoppers, to

gondolas, to coal cars, flat cars, rock cars, vacuum hopper cars, and wood chip cars. These are the majority of rail car types used on this line, but certainly not the limitation. These cars carry a variety of products including cardboard, lumber, propane, butane, ethanol, grains, aggregates, railroad ties, transformers, plastics and wood chips. There are other rail cars out there across the country including autorack cars, intermodal cars, super heavyweight cars, log cars, piggyback cars, refrigerated cars and more.

Each of these cars are designed to carry a commodity, whether in liquid, dry or gaseous state. These commodities can also be temperature controlled throughout its journey, but more often than not, these products are able to be shipped as is.

Often we are asked if we use a caboose. The answer is sometimes!

Back in the day, cabooses had a few purposes – not only were they a location for brakemen and trainmen to keep an eye on their train, but also were train crews home away from home! When a train crew is in the locomotive, it can be almost impossible to see the entire train you are pulling if it's of any great length. A train engineer could potentially have no idea anything is going wrong behind him because of a train's length. Trains back in the day could be upwards half a mile in length (or more!) and that can put the tail end of the train out of sight to the train crew in the front that's possibly going around curves or up and down mountains. Larger freight trains today are often at minimal a mile in length, but more often two miles long!

Today's trains have electronic boxes on the rear which can notify the train crew in the front that something may be wrong with the brakes and they should stop the train. Back then though, trainmen and brakemen would ride the caboose and use flags or lanterns or flairs to communicate to the locomotive things were good on the tail end of the train – nothing dragging, nothing coming loose, no hot wheels OR that somethings not looking right and they should stop. However, this could only be communicated when a train was in an open curve where an engineer could look back and see his train or on a straight section of track. Trainmen in the caboose could also apply the brakes manually should they feel the need to stop. This would notify the engineer in the front that something is wrong as the train would begin to slow without him braking. Trainmen in the caboose could also manage their paperwork for the train, ensuring customers orders and cars were delivered to the right location. In the early days, all paperwork was done manually with pencil and paper.

When a train crew arrived at its destination and their day was done, this train crew could camp out in their caboose car for the night until they were ready for their next run. Often these men would not necessarily go back to the same place they started. Railroads back then often sent these men away for days, going from destination to destination before heading back to their home station. These cabooses were often equipped with a pot belly stove for cooking on and

warming the car, often had a toilet and a tank of water that was gravity fed and bunk or bench to sleep on in addition to a few captains chairs and a desk.

Today, cabooses are nearly extinct as during the 1980's technology evolved so much that a caboose and extra train crew personnel was no longer needed. Today, the Buckingham Branch retains a few operating cabooses, used for some freight moves and on the Virginia Scenic Railway for show.

History of Line and Trains may see

You may ask, "how did the Buckingham Branch Railroad get to operate on this historic rail line?" To answer that, we need to go back a bit in history.

In 1836, the Louisa Railroad was chartered by the Virginia General Assembly to begin a railroad at a terminal known then as Hanover Junction (now known as Doswell). This junction connected with the Richmond, Fredericksburg and Potomac Railroad (often referred to as the RF&P Railroad). The RF&P railroad network ran more of a north south direction. The Louisa Railroad was tasked to expand westward per its original charter to traverse through the Counties of Louisa and Orange destined to build a corridor across the Blue Ridge Mountains and into Harrisonburg, Virginia.

By 1839, the Louisa Railroad had reached Louisa courthouse. It was then the Commonwealth requested a survey be conducted to determine a feasible route to Staunton by way of Charlottesville. Ultimately, this route, which passed over the mountains at Rockfish Gap, was chosen as a better alternative than the original plan to cross at Swift Run Gap to the north.

In 1847, the charter was modified again by the General Assembly to allow for the Louisa Railroad to create a rail line to the eastern base of the Blue Ridge and two years later, in 1849, the Blue Ridge Railroad was chartered for the purposes of building a rail line for crossing the mountains at Rockfish Gap to Waynesboro.

Now, in order to cross the Blue Ridge Mountains, it was determined that building a series of tunnels through the mountains and corridors along hillsides was more cost effective and efficient in terms of train time as compared to building up, over and around the mountains. In 1849, the Virginia Legislature chartered the Blue Ridge Railroad. It had the responsibility of constructing 17 miles of track from where the Louisa Railroad had ended. The Blue Ridge Railroad started its line 7 miles west of Charlottesville and continued west to Waynesboro along the South Fork of the Shenandoah River. This rail corridor is the same one you are riding on today. The Blue Ridge Railroad appointed Claudius Crozet as Chief Engineer of the Blue Ridge Railroad. Under

his leadership and direction, the Blue Ridge Railroad began construction over the Blue Ridge Mountains, blasting away a series of tunnels and grade for the track.

In January of 1850, the Commonwealth authorized the Louisa Railroad to create and sell more stocks in order to build a rail line now from Staunton west to Covington. In February, the Louisa Railroad had expanded so much since 1836 through the 1840s, stretching from Hanover County westward through central Virginia to the Blue Ridge Mountains, the Louisa Railroad so changed its name to become the Virginia Central Railroad. The newly named Virginia Central Railroad bypassed the under construction Blue Ridge Railroad by laying temporary track through Rockfish Gap. Additionally, the railroad had laid enough track to reach from Gordonsville to Charlottesville. Track was also beginning to be laid that year from the western edge of the Blue Ridge, heading west through the Shenandoah Valley to Staunton.

Seven years later, the Virginia Central Railroad had reached the western towns of Clifton Forge and Covington from the western edge of the Blue Ridge mountains and by 1858, the Blue Ridge Railroad had completed their series of tunnels to shorten the distance through Rockfish Gap. The bypass route around the blue ridge mountains was eventually removed. Citizens of Virginia now had a rail corridor spanning from Doswell, VA to the Shenandoah Valley.

A few years after the civil war ended, the Virginia Central Railroad and the Covington and Ohio Railroad merged to form the Chesapeake and Ohio Railroad around 1868-1869. This allowed for a rail corridor to span from Richmond all the way to the Ohio River Valley by 1873. By the 1880s, the Chesapeake and Ohio expanded its eastern presence via the Peninsula Subdivision to Newport News, Virginia.

For over 100 years, the Chesapeake and Ohio Railroad operated numerous networks of rail corridors. In the 1980s, the Chesapeake and Ohio was reorganized through a series of mergers and became what exists today as CSX Transportation.

CSX had been the primary railroad operator of the line you're on today until Buckingham Branch Railroad Founder Bob Bryant offered to maintain and operate the rail line on behalf of CSX. In 2004, the Buckingham Branch began its lease agreement for 212 miles of this line stretching from AM Junction (just north of Richmond) through Doswell all the way to Clifton Forge, Virginia.

Most recently, December 2019, then Virginia Governor Ralph Northam announced a \$3.7B transportation investment to include acquisition of more than 350 miles of railroad right-of-way and 225 miles of track - *Preserving an existing freight corridor of 199 miles between Doswell and Clifton Forge for future east-west passenger service.*

Today Amtrak, CSX Transportation, and the Buckingham Branch Railroad operate trains on what was originally the Louisa Railroad, later becoming the Virginia Central Railroad, and so forth - preserving this historical infrastructure for current day freight and passenger rail service needs.

Horn Sequence:

As our train approaches public road and railroad crossings, have you ever noticed there is a sequence to the horn blows – two longs a short and a long? This sequence dates back to the Queen of England when she used to travel by ship down the river Thames. In morse code, the Letter Q is communicated by two longs, a short and a long. The letter Q in this example stood for Queen. Ships would do a long long short and long sequence to announce to other ships in the harbor this is the queen, get out of the way. When the queen switched from traveling by boat to rail, the same signal sequence followed. Train engineers thus too would blow two longs a short and a long.

When US railroads began, the tradition from England was maintained as the standard signal and it is still used today, almost 200 years later! Rules regulated by the Federal Railroad Administration dictate that 15-20 seconds before the train enters the crossing, but no more than a quarter mile from reaching the intersection of track and road, train engineers should begin this sequence. The last long is to last for the entire time the train is going through the crossing.

Note however, train horn sequences, lengths for beginning and end are completely subject to the train engineer's judgment. This feature is not automated to be perfect every time. It's simply a rule though all train engineers must abide by across the country.

Other railroad related things to do in Virginia

If you're looking for more "railroad related things" to do here in Virginia, there are attractions nearby we'd like to highly recommend! First on our list: the C&O Railway Heritage Center. You should know that the line you are riding on today continues west to the town of Clifton Forge, Virginia - the home of the C&O Railway Heritage Center. This museum has a broad collection of freight cars, passenger cars, and locomotives from the Chesapeake and Ohio Railway. The museum has its own signal tower (no longer in use), an O gauge model train room, and a gift shop. This museum is open daily throughout the year. Be sure to check out their website: www.candoheritage.org

Just a little way south down Interstate 81 is the city of Roanoke. "Back in the day" it was known as the Town of Big Lick. In Roanoke you'll find the Virginia Museum of Transportation. The large museum presents numerous rail cars and locomotives of yesteryear. You'll also find other relic forms of transportation including vintage cars and airplanes.

Also in Roanoke, be sure to stop by the O. Winston Link Museum. This museum is known for documenting the end of the steam locomotive era of the former Norfolk and Western Railroad. You might know that train line today as the Norfolk Southern Railroad. The O. Winston Link Museum is actually located in a former passenger train station. Your visit there will give you a unique opportunity to admire some of America's most iconic train photography.

Nearing end of Ride:

We're nearing the end of your experience with us today. We certainly hope you enjoyed your time on the Virginia Scenic Railway. Please be sure to check out our website for future rides and special events. We also have social media accounts including Facebook, Instagram and Twitter. At this time we'd like to ask you to look around your table and make sure you have all your belongings.

Thank you for riding with us today and we hope to see you again soon for another adventure on the Virginia Scenic Railway and Buckingham Branch Railroad.