



VNHRR Presents:

Baltimore & Ohio

KINGWOOD BRANCH Tunnelton, WV – Kingwood, WV

Train Simulator 2017 Route DLC



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Route Information

Coal dominates on the Kingwood Branch. Located in the north east corner of West Virginia, USA, this small line hauls high quality bituminous coal out of the hollows and ridges of Appalachia to connections with the factories that power the nation. It's a 10 mile roller coaster negotiating steep grades and tight switchbacks between Kingwood and its interchange with the Baltimore & Ohio mainline at Tunnelton. Along the way, numerous spurs fan out up the wooded valleys to wherever coal is produced including a 7 mile run to the largest seam at Birds Creek.

Originally built in the 1800s as the West Virginia Northern Railroad, our fiction begins in the 1960s with a takeover by the B&O. By now West Virginia is the second largest coal producer in the US, just behind Wyoming. The Kingwood Branch serves 14 mines - a mix of traditional underground and surface pit, as well as some truck transfer sites for offline customers. Loads move from the mine tipples to the interchange yard at Tunnelton on the Mountain Sub mainline of the B&O. Empties arrive at Tunnelton and are stored along the line and at Kingwood for delivery to customers when called.

The B&O maintains a small branch headquarters at Kingwood where it stations a half dozen GP9's to haul the daily trains. These locomotives are cycled out to Cumberland for major repairs but routine maintenance is done at the engine shed in Kingwood. All trains originate out of Kingwood and return there at the end of their runs.

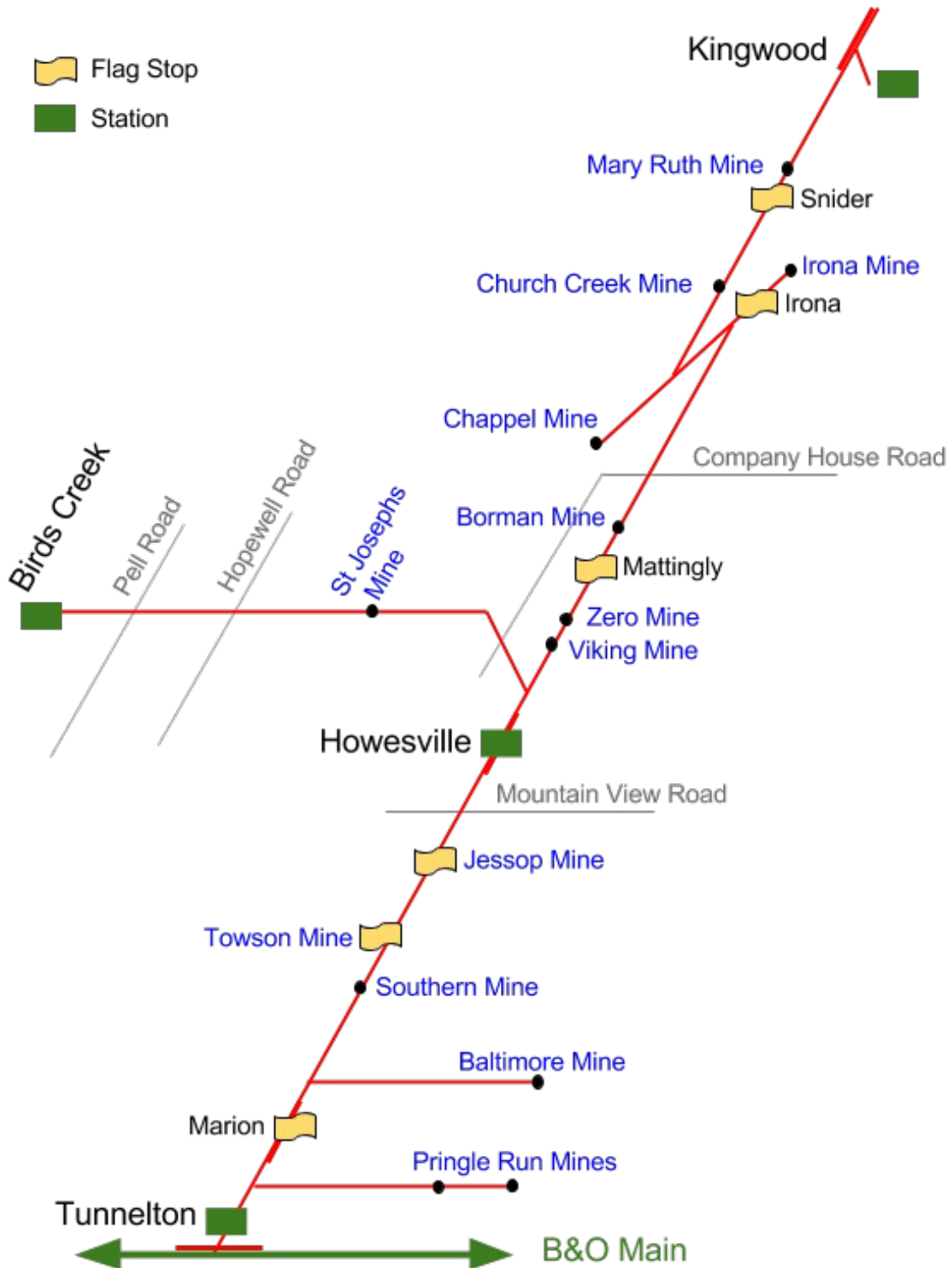
Non-mining customers include Howesville Oil and the Howesville Lumber mill. Others are served via the freight sheds at Kingwood and Howesville or the team tracks there and at Snider, Mary Ruth, and Birds Creek.

Regularly scheduled passenger trains stop at Kingwood, Howesville, Birds Creek and Tunnelton. In addition, passengers can board the train at Snider, Irona, Mattingly, Jessop, Towson, and Marion by raising the signal at the flag stops there. And in the true backwoods tradition, a friendly word to the conductor may see the train stop anywhere in between so the regulars can disembark close to work or home.

The B&O takeover brought with it new diesel locomotives, but before then, it was coal powered steam engines that did all the grunt work. You'll find water tanks along the line and turntables where needed to allow a return to the steam era for those so inclined.

Unlike on our route, the real West Virginia Northern railroad never got taken over by the B&O. It remained an independent shortline until its end as a coal hauling railroad in the 1990s, delivering its coal loads to the B&O (later Chessie, then CSX) at Tunnelton. After a short spell as a tourist railroad, the railroad got abandoned for good and the tracks torn up in the early 2000s. Today, only few traces remain of this railroad that once wound its way through the woods between Kingwood and Tunnelton.

Route Map



Operating Rules

Whistle Posts

Whistle posts are marked by a sign showing a black letter "W" on white background and are placed approximately 600 feet ahead of public or private grade crossings that require the engineer to blow the whistle or sound the horn. The whistle signal is "~ ~ - ~".

Whistle Signals

The signals prescribed are illustrated by "-" for short sounds and "~" for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance it is to be conveyed.

Sound	Indication
-	Apply brakes. Stop.
~	Release brakes. Proceed.
~ - - -	Flagman protect rear of train.
- -	When standing, start.
- - -	When standing, back.
~ ~ - ~	Approaching public crossings at grade. To be prolonged or repeated until crossing reached.
Succession of -	Alarm for persons or livestock on the track.
~ -	When running against the current of traffic: (1) Approaching curves or other points where view may be obscured. (2) Approaching trains. (3) On two tracks approaching stations.

Speed Signs and Rules

General Speed Rules

- Limited Speed: Passenger Train: 45 mph, Freight Train: 40 mph
- Medium Speed: 30 mph

- **Slow Speed:** 15 mph
- **Restricted Speed:** Do not exceed 15 mph. Train must at all times be able to stop within half of range of vision short of other trains or equipment obstructions.

Unless indicated otherwise by speed signs, restricted speed applies on all yard and industry tracks.

The maximum permitted speed on the Kingwood Branch is 25 mph.

Speed Signs

Fig. 1 and 2:

Name: **Reduce Speed Sign** - *Indication:* Reduce to speed indicated by sign.

These signs are located alongside the track on the engineer's side. They are placed far enough in advance of the point at which the reduced speed becomes effective to permit reduction from maximum authorized speed to the reduced speed. Trains exceeding the speed specified by the sign must reduce speed immediately when passing the sign.

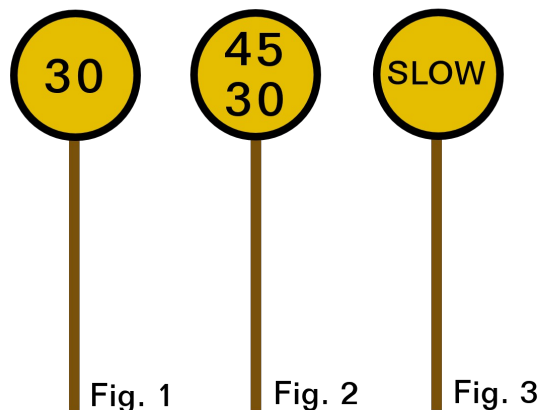


Fig. 3:

Name: **Slow Sign** - *Indication:* Reduce to speed indicated by sign.

These signs, marked alongside the track, mark the begin of a reduced speed territory previously announced by a reduced speed sign.

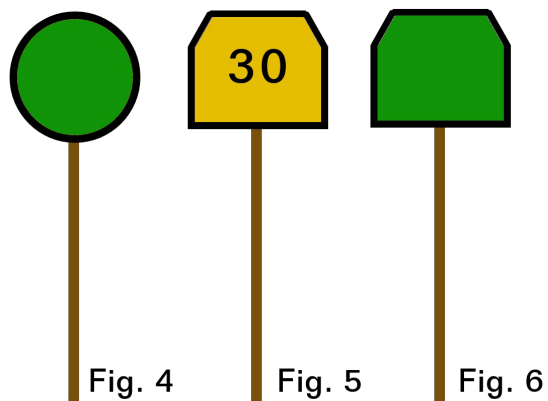


Fig. 4:

Name: **Resume Speed Sign** - *Indication:* Resume speed when rear of train has passed sign.

These signs mark the end of a reduced speed territory. The train may now return to permitted track speed (25 mph on the Kingwood Branch).

Fig. 5:

Name: **Temporary Reduce Speed Sign** - Indication: Reduce to speed indicated by sign.

These signs warn the engineer of a temporary speed restriction ahead and are placed far enough in advance of the point at which the reduced speed becomes effective to permit reduction from maximum authorized speed to the reduced speed. Trains exceeding the speed specified by the sign must reduce speed immediately when passing the sign.

Fig. 6:

Name: **Temporary Resume Speed Sign** - Indication: Resume speed when rear of train has passed sign.

These signs mark the end of a temporary reduced speed territory. The train may now return to permitted track speed (25 mph on the Kingwood Branch).

The B&O Color Position Light (CPL) Signals

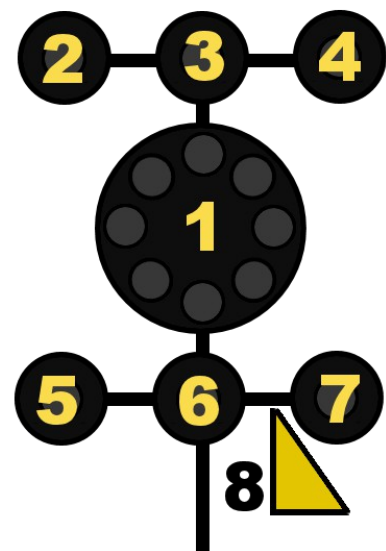
The B&O's unique Color Position Light signal system, still in use on parts of the CSX railroad's territory today, may look complex at first. It is however very logical once you are familiar with it. We hope that the following guide will help you get acquainted with the B&O's CPL signals. Please note that not all of the aspects displayed below can be encountered on our route.

The CPL signal consists of three main components: the main signal head (1), up to three upper marker lights (2, 3, 4), and up to three lower marker lights (5, 6, 7).

The **main signal head (1)** indicates the track occupancy of the train's route. This works like on most other railroads, a green signal means the next two blocks ahead are clear. A yellow signal means that the block after the one past this signal is occupied. Red means that the block past this signal is occupied.

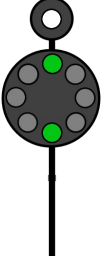
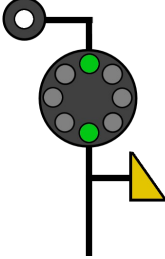
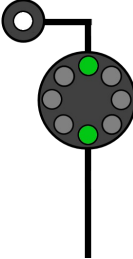
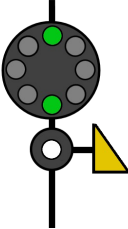

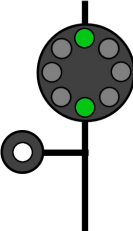
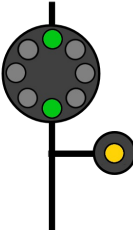
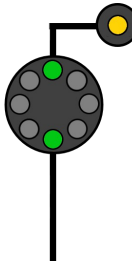
The upper three marker lights modify the speed past the following signal. The upper left marker (2) alters the signals indication to "approach medium". The upper center marker lights indicates "proceed". A lit upper right marker (4) indicates "approach slow".



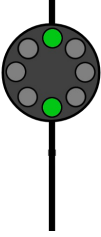

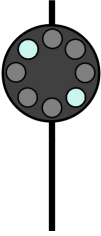
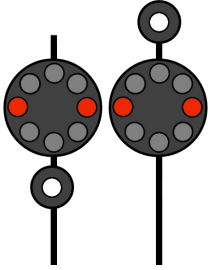
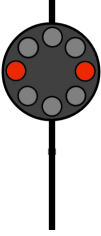
The lower three markers are used to modify the speed past this signal or for when the train is routed through a turnout, crossovers, or a siding. The left and center lower marker lights (5) and (6) indicate medium speed moves. The lower right marker light indicates slow speed moves.



Some signals may show a limited speed plate (8). This marker upgrades all medium speed aspects to limited speed.

Signaling Rules

	<p>CLEAR Proceed.</p>		<p>APPROACH LIMITED Proceed approaching next signal not exceeding limited speed.</p>
	<p>APPROACH MEDIUM Proceed approaching next signal not exceeding medium speed.</p>		<p>LIMITED CLEAR Limited speed through crossovers, turnouts, sidings, interlocking limits, and over power switches. Then proceed at maximum authorized speed.</p>
	<p>MEDIUM CLEAR Medium speed through crossovers, turnouts, sidings, interlocking limits, and over power switches. Then proceed at maximum authorized speed.</p>		<p>MEDIUM APPROACH MEDIUM Proceed not exceeding medium speed, approaching next signal not exceeding medium speed.</p>
	<p>MEDIUM APPROACH SLOW Proceed not exceeding medium speed, approaching next signal not exceeding slow speed.</p>		<p>APPROACH SLOW Proceed approaching next signal not exceeding slow speed. Train or engine exceeding medium speed when indication is seen must at once reduce to medium speed or slower.</p>

	<p>APPROACH Proceed prepared to stop at next signal. Train or engine exceeding medium speed when indication is seen must at once reduce to medium speed or slower.</p>		<p>MEDIUM APPROACH Proceed not exceeding medium speed prepared to stop at the next signal.</p>
	<p>SLOW APPROACH SLOW Slow speed through crossovers, turnouts, sidings, interlocking limits, and over power switches. Then proceed at maximum authorized speed if conditions permit, but must approach the next signal not exceeding slow speed.</p>		<p>SLOW APPROACH Slow speed through crossovers, turnouts, sidings, interlocking limits, and over power switches. Then proceed at medium speed prepared to stop at the next signal.</p>
	<p>RESTRICTING Proceed at restricted speed.</p>		<p>STOP AND PROCEED Stop. Then proceed at restricted speed.</p>
	<p>STOP Stop.</p>		

Timetable

No 14		KINGWOOD BRANCH				No 14	
		Employee Timetable					
		Effective Jan 1, 1958					
Southbound Trains						Northbound Trains	
Train 1 Exc. Sun	Train 3 Exc. Sat,Sun	Station		Mi.	Train 2 Exc Sat,Sun	Train 4 Exc Sun	
07:00 am		KW KINGWOOD		10.2		4:55 pm	
	10:00 am	BC BIRDS CREEK		10.2	9:25 am		
7:30 am	10:30 am	HV HOWESVILLE		4.3	8:55 am	4:25 pm	
7:55 am	10:55 am	TU TUNNELTON		0	8:30 am	4:00 pm	

Notes:

1. No passenger service on Sunday.
2. Birds Creek service (Trains 2 and 3) runs weekdays only.
3. Timetable shows station departure times (exc last station on run).
4. Train 1 becomes Train 2 becomes Train 3, layovers in TU, finish as Train 4.
5. All scheduled trains stop when flagged at Snider, Irona, Mattingly, Jessop, Towson or Marion.

Career Scenarios

The Career Scenario Scoring System

Many of you are most likely familiar with Train Simulator's Career scenarios, a type of scenario that usually awards points for accomplishing your work order in the shortest time possible. On our route things are a bit different though: getting fast from point A to B is not only not necessary deep in the woods of West Virginia, it can be downright dangerous on the tricky grades of this route. You will thus start most of the Career scenarios with maximum points (1000) right at the beginning. Drive carefully and avoid operational errors such as speeding or applying the emergency brakes and you will carry the 1000 points to the very end of the scenario. Do not despair if you keep losing points. Even we as the route's developers, who know it like the back of our hands by now, only rarely achieve the Gold Medal. The passenger scenarios are the only ones that are fully timetabled, but even then you do not have to go flat out. This route is challenging! Take your time and learn to master it.

Training Run 1, Tunnelton to Howesville

Duration: 25 minutes **Difficulty:** Easy

Briefing: For your first run on the WVN take a train of empty hoppers northbound as far as Howesville. On the Kingwood Branch coal moves south to the B&O interchange, with empties returning the opposite direction. You start out with your GP9 locomotive on the High Line at Tunnelton. This is actually an abandoned section of the B&O main that we use as a drill track for our interchange yard. We are running extra so we have to stay out of the way of scheduled traffic. This morning our biggest concern is Passenger Train 3 from Birds Creek to Tunnelton. We'll meet it at Howesville and must be in the clear 10 minutes before its scheduled 10:30 departure.

Work Order:

1. Set your brakes to prepare for the downhill run to Marion.
2. Proceed to Marion.
3. Prepare for the uphill grind to Howesville.
4. Stop short of the Howesville switch so the brakeman can line us into the siding.
5. Pull the train into the siding to finish the scenario.

Training Run 2, Climbing the Switchback

Duration: 15 minutes **Difficulty:** Medium

Briefing: Practice safely ascending the switchback with a loaded train. You are on Extra 15, a heavy mixed freight operating from Kingwood to Tunnelton. Take the controls at Snider to practice running the train up through the switchbacks.

Work Order:

1. Throttle up for the climb to the switchbacks.
2. Prepare your brakes in advance of the lower switch.
3. Crawl through, ready to control your speed on the down grade beyond.
4. Stop when the caboose is clear.
5. Reverse to the upper switch.
6. Line it up for the southbound main.
7. Move out to finish the scenario near Mattingly.

Training Run 3, Descending the Switchback

Duration: 20 minutes

Difficulty: Medium

Briefing: Practice safely descending the switchback with a loaded train. You're on Extra 18 with 10 loaded hoppers headed for a layover in Kingwood. Take the controls as we approach the upper switch.

Work Order:

1. Set up your air brakes for the descent.
2. Retain this brake set all the way to Snider.
3. Control your speed with the throttle and dynamic brakes.
4. Crawl through the upper switch until your caboose is clear.
5. Reverse down to the lower switch.
6. Get on your dynamics early to stay in control.
7. Line the lower switch for the northbound main.
8. Descend the last leg to Snider.

Work Train to Snider

Duration: 15 minutes

Difficulty: Medium

Briefing: Assemble a work train at Kingwood and take it to the track gang working at Snider. You start out with your GP9 locomotive on the fueling track at Kingwood.

Work Order:

1. Complete fueling of your locomotive.
2. Saw over to Yard 2 to pick up the two loaded flat cars 8931 and 8879.
3. Push back to the Auxiliary Track to add on a caboose 2281.
4. Pull out of the yard onto the southbound main.
5. Stop short of the Snider switch so the brakeman can line us into the spur.
6. Spot the flat cars at the team track for the waiting track gang.

Birds Creek Extra, part 1

Duration: 50 minutes **Difficulty:** Medium

Briefing: Take a cut of 25 empty hoppers from Tunnelton to the Birds Creek mine. You start out with your train assembled in the interchange yard.

Work Order:

1. Push back out of the yard onto the High Line.
2. Line up switches for the Kingwood Branch.
3. Proceed to Howesville.
4. Continue north, routing onto the Birds Creek Branch at the junction.
5. Pull directly into the empties track
6. Drop the empty hoppers here to complete the scenario.

Birds Creek Extra, part 2

Duration: 60 minutes **Difficulty:** Hard

Briefing: Return to Tunnelton with a long cut of loaded hoppers in tow. The mine workers have rolled all outbound cars from the tipple to the lead track. All you have to do is pick them up.

Work Order:

1. Drive through the tipple.
2. Couple to your cars on the lead track.
3. Line the switches for the eastbound main.
4. Proceed to meet the southbound main at the junction.
5. Continue on through Howesville to Tunnelton.
6. When you reach the High Line, reverse into Track 2.

Kingwood Coal Turn, part 1

Duration: 60 minutes **Difficulty:** Hard

Briefing: You are working the daily Coal Turn, the train that delivers empties from Tunnelton to Kingwood, services the mines, and returns loaded coal cars to Tunnelton. Part 1 will take you from Tunnelton to Kingwood. You are running three GP9 locomotives waiting for you on

the High Line. Your train is assembled on track 2.

Work Order:

1. Use track 4 to run down to the far end of the yard.
2. Back up on track 2 to couple to your train.
3. Line up a route, and push your train back onto the High Line.
4. Proceed north, taking the main at Howesville.
5. There, we'll cut off the first eight cars and move them to the passing siding.
6. Continue on with the rest of the train for Kingwood.
7. Drop the rest of the empty hoppers on Yard 1.
8. Spot the power on the yard tail track to finish the first part of the scenario.

Kingwood Coal Turn, part 2

Duration: 60 minutes

Difficulty: Very Hard

Briefing: Continuing with the daily Coal Turn, we'll do some switching here at Kingwood and then make a service run out to Church Creek and Mary Ruth mines. We left the inbound train on Yard 1 with eight empties headed for Church Creek, and the remainder to be stored here in Kingwood.

Work Order:

1. Shunt the Church Creek empties with the caboose temporarily over to Yard 2.
2. Move the remaining twelve hoppers from Yard 1 to the Empties 3 track.
3. Join the Church Creek cars on Yard 2 to form the mine service train.
4. Push the train, caboose first, southbound toward Church Creek.
5. Drop the caboose at Snider along the way.
6. Drop the eight empty hoppers at Church Creek.
7. Pick up all loaded cars from Church Creek.
8. Return to Snider, and shunt the caboose out onto the main.
9. Pick up all loaded hoppers at the Mary Ruth mine.
10. Retrieve the caboose.
11. Return to the Kingwood Yard 1 track.

Kingwood Extra

Duration: 60 minutes

Difficulty: Medium

Briefing: Take a short train of express freight from Tunnelton to Kingwood. A mainline train has dropped off three cars of express cargo in Tunnelton Yard moments ago, now it is your task to deliver them to their customers in Howesville and Kingwood. Your train is assembled and ready to go on Tunnelton Track 4.

Work Order:

1. Back out of the Tunnelton yard and proceed northbound.
2. Take the main at Howesville and separate the first two cars.
3. Drop box car 285970 at the Howesville Freight shed.
4. Drop flat car 8849 at the Howesville Team Track.
5. Proceed with the rest of the train to Kingwood.
6. Drop the caboose on Yard 2.
7. Push boxcars 295922 and 282783 back to the Kingwood Freight Shed.
8. Return to the Engine Shed to finish the scenario.

Passenger Train No 1 - Kingwood to Tunnelton

Duration: 55 minutes

Difficulty: Medium

Briefing: Operate Train No 1 from Kingwood to Tunnelton. This is a scheduled train. You must stay on time and make all scheduled stops. Refer to the timetable reproduced here in this manual. In addition you must watch for signals at the flag stops and stop when passengers are waiting. The conductor will alert you in advance of a stop if a passenger wants off.

Please Note: When stopping at a flag stop, you must wait for the conductor's "All aboard" message. The conductor will handle opening the doors. You don't have to press the "open doors" button. When the conductor signals "All aboard" you may proceed. If the train moves while the passengers are boarding, you will fail the task. This stopping procedure applies to all passenger scenarios.

Work Order:

1. Join your train at Kingwood and open the doors to begin boarding.
2. When the conductor signals, you can back down to the Kingwood yard.
3. Proceed out of the yard toward Howesville, watching the flag stops along the way.

4. At Howesville, stop on the main and open the passenger doors to begin boarding.
5. When you get clearance, depart on time for Tunnelton
6. At Tunnelton, stop on the depot track to complete your run.

Passenger Train No 2 - Tunnelton to Birds Creek

Duration: 55 minutes **Difficulty:** Medium

Briefing: Operate Train No 2 from Tunnelton to Birds Creek. This is a scheduled train. You must stay on time and make all scheduled stops. Refer to the timetable reproduced here in this manual. In addition you must watch for signals at the flag stops and stop when passengers are waiting. The conductor will alert you in advance of a stop if a passenger wants off.

Work Order:

1. Join your train at Tunnelton and open the doors to begin boarding.
2. When the conductor signals, you can proceed onto the main toward Howesville.
3. Watch the flag stops along the way.
4. At Howesville, stop on the main and open the passenger doors to begin boarding.
5. When you get clearance, depart on time, taking the branch for Birds Creek.
6. At Birds Creek, stop on the depot track to complete your run.

Passenger Train No 3 - Birds Creek to Tunnelton

Duration: 55 minutes **Difficulty:** Medium

Briefing: Operate Train No 3 from Birds Creek to Tunnelton. This is a scheduled train. You must stay on time and make all scheduled stops. Refer to the timetable reproduced here in this manual. In addition you must watch for signals at the flag stops and stop when passengers are waiting. The conductor will alert you in advance of a stop if a passenger wants off.

Work Order:

1. Join your train at Birds Creek and open the doors to begin boarding.
2. When the conductor signals, proceed east along the branch line
3. Join the main southbound to Howesville.
4. At Howesville, stop on the main and open the passenger doors to begin boarding.

5. When you get clearance, depart on time for Tunnelton.
6. Watch the flag stops along this section.
7. At Tunnelton, stop on the depot track to complete your run.

Passenger Train No 4 - Tunnelton to Kingwood

Duration: 60 minutes **Difficulty:** Very Hard

Briefing: Operate Train No 4 from Tunnelton to Kingwood. This is a scheduled train. You must stay on time and make all scheduled stops. Refer to the timetable reproduced here in this manual. In addition you must watch for signals at the flag stops and stop when passengers are waiting. The conductor will alert you in advance of a stop if a passenger wants off. And for this scenario, you have the additional work of turning your locomotive and configuring your train for a northbound trip.

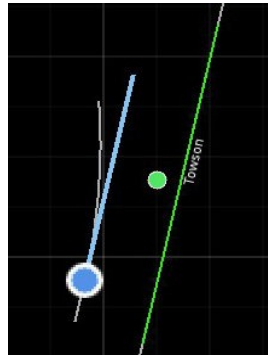
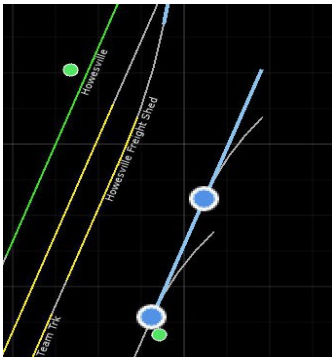
Work Order:

1. Uncouple from the train and pull the locomotive onto the turntable.
2. Swing it around, short hood forward, for the northbound trip.
3. Exit onto the main to run around your consist.
4. Couple back on at the station, and open the doors to begin boarding.
5. When the conductor signals, you can proceed onto the main toward Howesville.
6. Watch the flag stops along the way.
7. At Howesville, stop on the main and open the passenger doors to begin boarding.
8. When you get clearance, depart on time for Kingwood.
9. At the Kingwood yard, align switches and reverse back into the depot.

Scenario Authors: How to Use Flagstop and Train Order Signals

We have installed train order signals and flagstop boards along the stations on this route. While these signals are merely for show and do not actually interact with the player/AI services, their signal state can still be set by the scenario author. Open the 2D map and look for a set of switches buried underground near the flagstop/train order signal. Setting these switches changes the train order signals' or flagstops' signal state.

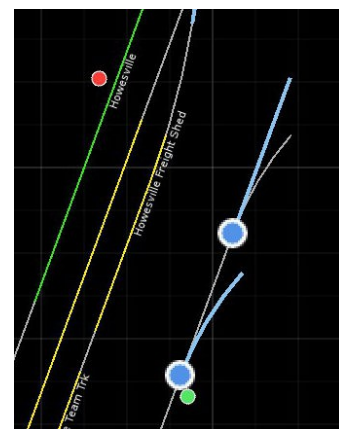
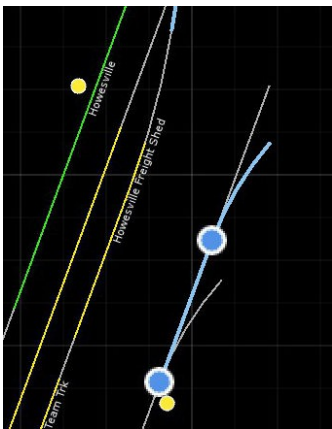
A straight path on these buried switches means: raised flagstop arm / train order signal.



Setting the second switch from the center at a train order signal makes it show "SLOW".

Setting the switch on the buried switch next to flagstop drops the flagstop signal's arm.

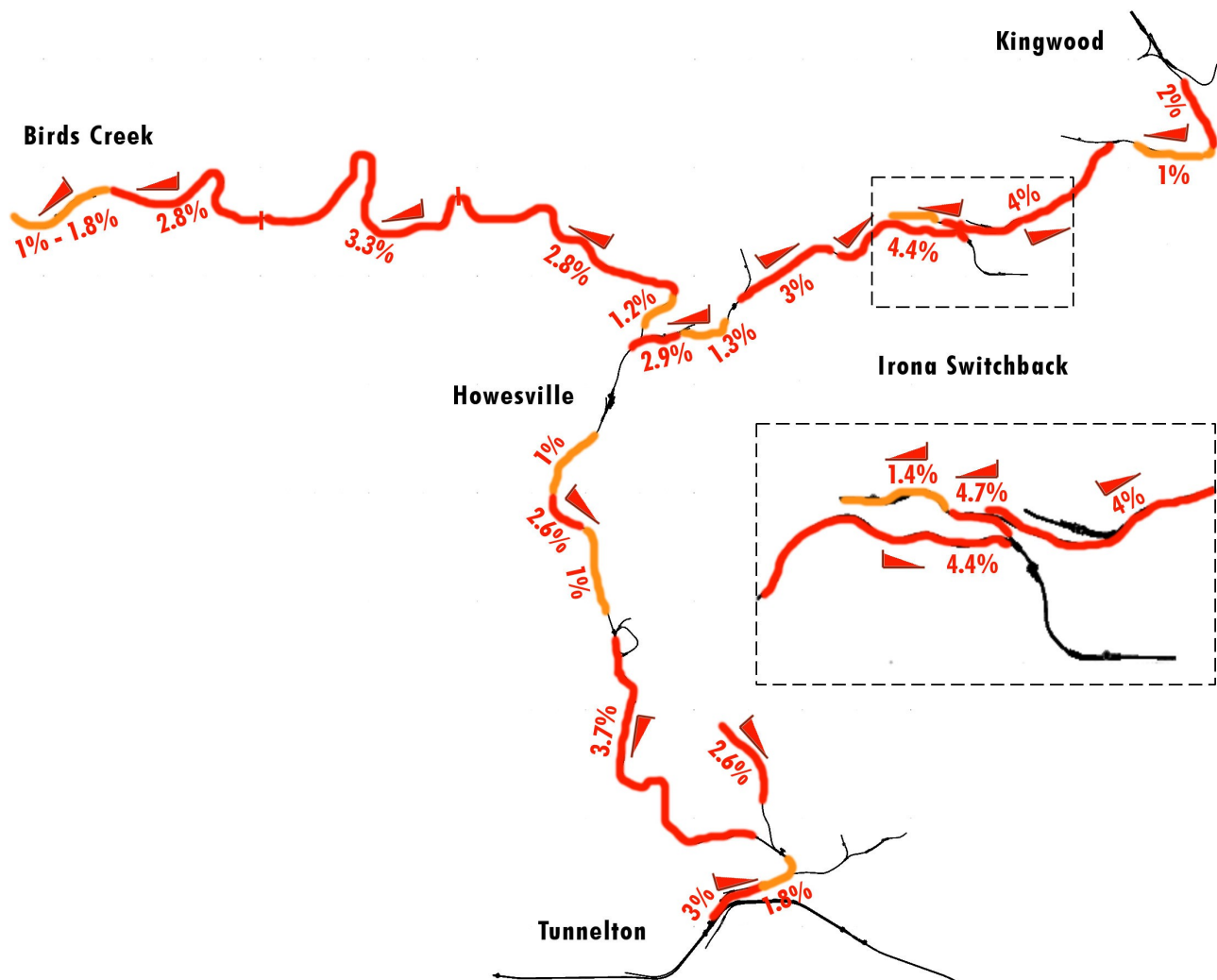
Setting the first switch from the center at a train order signal makes it show "STOP".



Riding the Roller Coaster: How to Navigate the Route Safely and Efficiently

You need a firm hand on the throttle and brakes to control your train over the grades and the switchback of the line.

Please refer to the schematic below for the important maximum average gradients on the route. Only grades of 1% and greater are shown.



Maximum Tonnages

The GP9 is rated at 1,750 horsepower. With the average car weights of the loaded 55 ton and 70 ton coal hoppers, you should not exceed the following train lengths even in good track conditions.

From Birds Creek to Tunnelton:

not more than ten loaded 55 ton hoppers per locomotive

not more than eight loaded 70 ton hoppers per locomotive

From Kingwood/Irona to Tunnelton:

not more than eight loaded 55 ton hoppers per locomotive

not more than six loaded 70 ton hoppers per locomotive

How to Get Up and Down the Steep Grades

The Kingwood Branch has a number of extreme grades over severely rolling terrain and hardly any level stretches of track, posing a great challenge to your train handling skills. Please read on before attempting a run on this route with more than a light engine for the first time.

What to do when...

... approaching a steep climb:

The short answer is "apply the throttle". However, it is not always quite as simple as that. Most importantly, you should ensure to slowly pull out the slack of your train's couplers, if there is any in them, before hitting the grade. To do that, wait for the increased acceleration to reach the last car before you notch up further than the first notch. Then, when your train's head end starts climbing up the grade, increase the throttle to keep your speed constant and the train stretched.

...having to slow down on a climb:

This is really quite simple, just ease off the throttle one or two notches and let gravity do the rest. Do not apply the brakes or put the throttle back to idle, or the steep grades on this route will surprise you.

...having to stop on a climb:

This is a bit more complex. First, you should apply your brakes sufficiently to hold your train

once stopped. Then decrease the throttle by one or two notches and let the train come to a stop. Keep your throttle on until you are stopped to prevent the heavy locomotives rolling back towards the rear end, taking in the slack in the process and making it unnecessarily trickier to get moving again.

...starting a train on a grade:

Starting a heavy train on a steep grade is a thing engineers usually want to avoid, but with the many mines situated on the steep parts of the line, there is often no way around it on this route. When starting a train on a steep uphill grade, the most important part is to prevent it from rolling backwards. Keep your brakes applied while throttling up to notch two or three, then release the brakes when the amps have built up and increase the throttle to get the train moving. Immediately apply the brakes again if the train starts to roll backwards. Do not wait, you risk a runaway if the engine's wheels start slipping at this point and the brakes are not applied. Throttle down and start over, this time with more throttle right from the start.

...spotting cars on a grade:

Many of the mine tracks on this route are built on a grade, so that the cars can be moved by gravity from the empties track to the tipple and beyond. When spotting a cut of cars on a grade, just make sure to apply enough handbrakes before uncoupling from the cars. One handbrake every five cars is more than enough.

...approaching a steep descent:

With ruling grades of up to 4.4%, the terrain of this route is unforgiving and getting down the grades safely is of the utmost importance. There is no room for errors, the smallest mistake can lead to a runaway.

When approaching one of the numerous steep descents, you should plan well ahead. Apply the brakes to minimum reduction well before the start of descent. You might even want to stop your train on the crest of the hill to apply the brakes. Then use your throttle to pull your train over the crest, easing off the throttle as gravity starts to pull the head end down the grade. Stay well below the speed limit. Withdraw the throttle and engage your dynamic brakes once more cars of the train get onto the grade and the train remains at constant speed for a moment, then use the dynamic brakes to maintain that speed as the rest of the train enters the grade.

...arriving at the bottom of a steep descent:

When your train arrives at the bottom of the hill, watch out for the slack in your couplers. It will be bunched up after using your dynamic brakes, but it might be pulled out if you only

used the train brakes. It will definitely be pulled out if you had applied the throttle during the descent. When you arrive at the bottom of the hill with the slack pulled out, apply your locomotive's throttle to keep the train nicely stretched out and avoid the rear end bumping into you.

...too much brake pressure has been applied on a descent:

When you find yourself slowing down too much on a long descent after having applied too much brakes, use your throttle to control the speed. Do not release the brakes if you value your life! It would take much too long to release and reapply the brakes, on the steep gradients on this route this would very likely lead to a runaway.

In case you have applied so much brake pressure that even full throttle will not pull the train, for example after a full service or emergency application during the descent, your only option to get moving again is to first set the handbrakes on your stopped train. Then release the train brakes, wait for the reservoirs to recharge, and apply the brakes again. Only now can you release the handbrakes and continue down the grade, controlling your speed with the dynamic brakes as usual.

Operating the Train Brakes

The engines included with this add-on are equipped with a simplified model of the brake valves found on many first generation diesel engines. In contrast to the brakes you may be used to from more modern U.S. diesel engines in Train Simulator 2017, these are not self-lapping. To operate them properly, you must handle them more like the train brakes on a steam engine.

To slow down a train on level tracks, a "Minimum Reduction" application of the brakes is often sufficient. "Minimum Reduction" is the second notch on the brake handle when you pull the train brake handle. To apply the train brakes further than their minimum, for example to slow down on a downhill stretch of track or to come to a complete stop, move the handle to the "Apply" position. Watch the brake pipe pressure readouts, once you have reached the desired brake force, pull the brake handle back to the "Lap" position. The brake pipe pressure will now be maintained at the current level. Should you need more brake force, move the handle back to "Apply", wait until the desired brake pipe pressure has been reached, then move it back to "Lap".

Please note that the further you move the handle into the "Apply" position, the faster the brake pipe pressure will change. It takes some practice to learn how much brake pressure you need to apply to get the desired deceleration. It is advisable, especially if you are not an experienced engineer in a first generation diesel engine, to start the whole deceleration process early and apply the brakes gently.

To release the brakes, pull the lever back towards you, to the "Release" position. Please note that this fully releases the brakes on the whole train, you cannot do partial brake releases

with this type of braking equipment.

On the extreme right end of the lever's way of travel is the "Neutral Handle Off", beyond which you find the "Emergency" setting. This immediately applies maximum brake force, use it only in cases of actual emergency.

Equipment Roster

EMD GP9 Diesel-Electric Locomotive

The GP9 was one of EMD's highly successful first generation "road switcher" diesel engines. This series of all-purpose locomotives is noteworthy for its high versatility, economic operations and great longevity with some units still in service even today, well over half a century after their first run.

The GP9 was a common sight on the Baltimore & Ohio RR, over two hundred units of this type were on the roster and included both passenger and freight versions of the GP9.



The model included in this add-on is a freight version of the GP9 and is available in two liveries: B&O EMD GP9 BO-1: early freight livery



B&O EMD GP9 BO-2: the later all blue "Capitol" livery

Passenger Coach



B&O Passenger Coach BO 900 Series: a 65 ft heavyweight commuter coach

Caboose



B&O Caboose I-12, B&O Caboose I-5, B&O Caboose I-5D

The Class I-12, pictured on the left, was one of the B&O's "Wagontop" design cars, and also one of several bay-window type caboose classes the railroad rostered. A sturdy steel construction, this class was a common sight on the mainlines.

The Class I-5 was an earlier center cupola caboose with a wooden body. A very lightweight car with closely spaced truck centers, it was prone to derailling, particularly when pushed by a helper engine.

The Class I-5D, pictured on the right, was a rebuilt version of the Class I-5. To combat the derailling problem, the truck centers were moved outwards and concrete was added to the car's floor to act as ballast.

Freight Cars



B&O Boxcar 36 ft MOW and B&O Boxcar 50 ft BO-1



B&O Boxcar 40 ft BO-1 and B&O Boxcar 40 ft BO-2



B&O Boxcar 40 ft CO-1 and B&O Boxcar 40 ft WM-1



B&O Boxcar 40 ft USRA brown, B&O Boxcar 40 ft USRA grey, B&O Boxcar 40 ft USRA red



B&O Flatcar. Available in two empty versions or with cable, pipes, rails, ties, trucks and covered load (pictured).



B&O Gondola 52 ft. Available empty or with pipes load (pictured).



B&O Gondola 65 ft. Available empty (pictured) or with steel coils and logs cargo.



B&O Hopper 55 t Coal BO-1, B&O Hopper 55 t Coal BO-2, B&O Hopper 55 t Coal BO-3



B&O Hopper 55 t Coal BO-4, B&O Hopper 55 t Coal BO-5, B&O Hopper 55 t Coal CO-1



B&O Hopper 55 t Coal CO-2, B&O Hopper 70 t Coal BO-1



B&O Hopper 70 t Coal BO-2, B&O Hopper 70 t Coal BO-3



B&O Hopper 70 t Coal CO-1, B&O Hopper 70 t Coal CO-2



B&O Tankcar, B&O Airslide Hopper



B&O Reefer 40 ft BO, B&O Reefer 40 ft yellow

Cab Controls

The engines in this add-on use the standard keyboard controls of Train Simulator 2017. Please refer to the User Manual of Train Simulator 2017 or the Academy scenarios for general information about how to drive a locomotive in this game.



1	Reverser	6	Sander
2	Power Handle (Throttle)	7	Bell
3	Independent Brake (Locomotive Brake)	8	Headlights
4	Train Brake	9	Dynamic Brake
5	Horn		

Credits and Acknowledgements

Wayne Campbell: Scenery, Terrain, Track Building, Terrain Texturing, 3D Modeling, Scenario Design

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Derek Siddle: GP9 Cabview

Bob Jones: 3D Modeling

Rick Grout: Freight Car Sounds

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Other Credits

Textures.com

MediaCollege.com

episcura.com