

Allegheny Portage Railroad

Allegheny Portage Railroad
National Historic Site
Pennsylvania

National Park Service
U.S. Department of the Interior



Heading West in the Age of Steam

America was on the move, and no one wanted to be left behind. New York's Erie Canal opened in 1825, linking the Atlantic Coast with the Great Lakes. It sparked competition among other states for their own streamlined route to the nation's interior. Pennsylvania embarked on a massive project called the Main Line of Public Works (*right*). A new railroad was built from Philadelphia to the Susque-

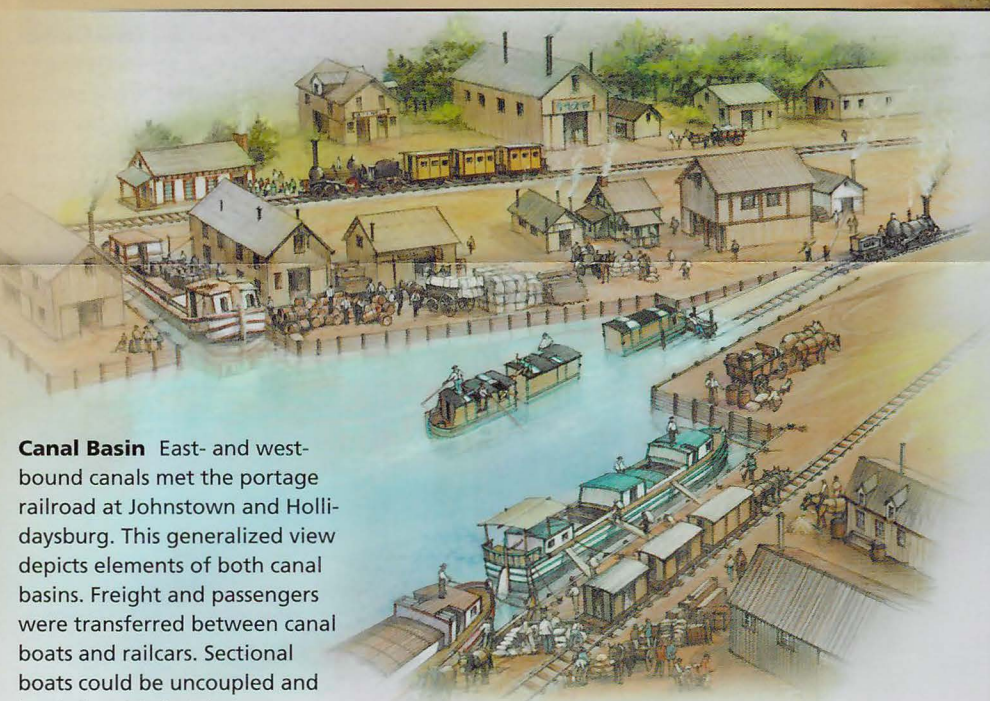
hanna River, where canals continued the line upriver to the Allegheny Mountains. The Western Division canal linked Pittsburgh and Johnstown. By 1831 both routes were almost finished—separated by 36 miles and 3,000-foot Allegheny Mountain. The solution to the barrier, the Allegheny Portage Railroad, relied on simple physics and bold execution. The map above shows the original portage route.



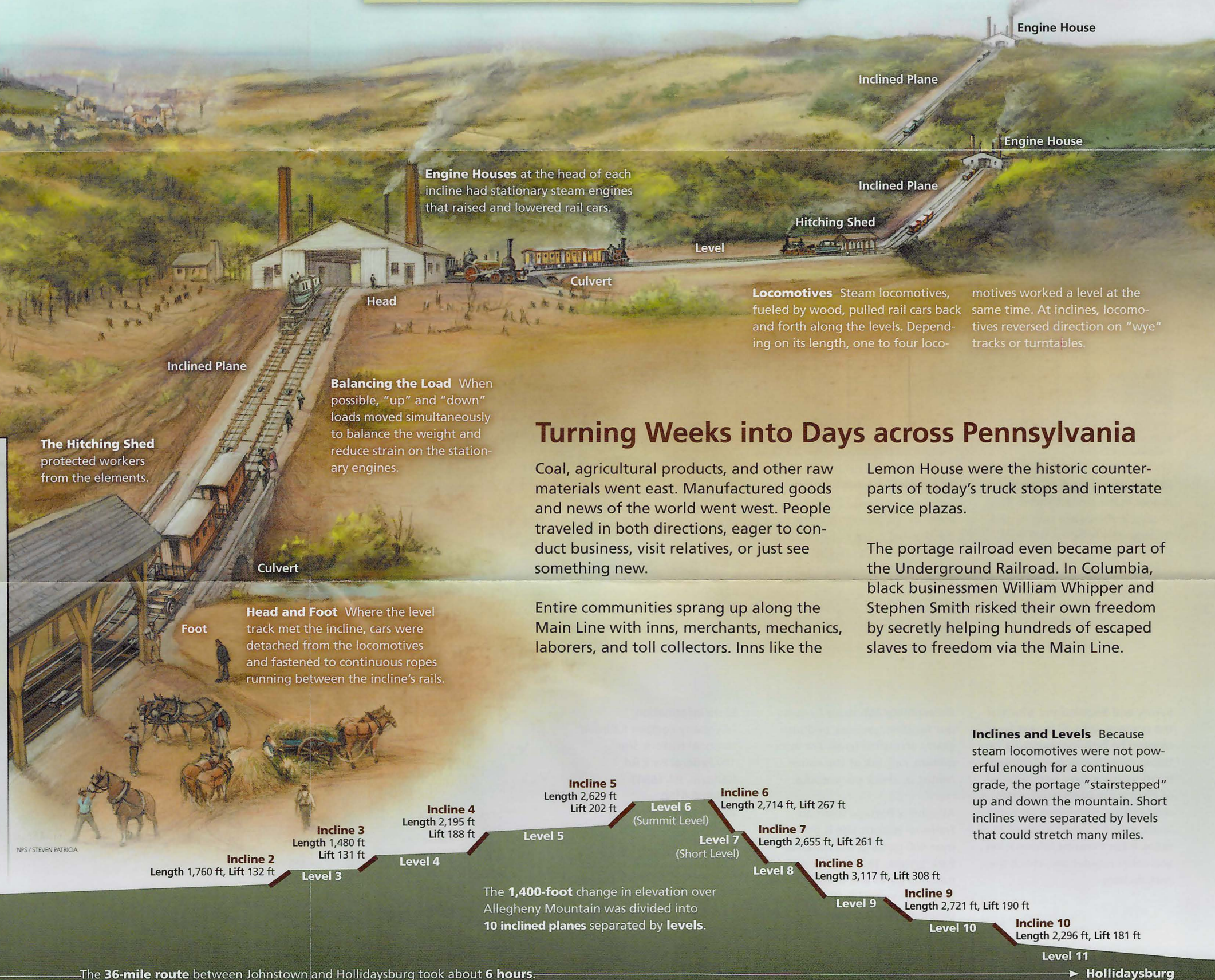
The Pennsylvania Main Line
Allegheny Portage Railroad was completed in 1834, the final leg of the Main Line. Travel from Philadelphia to Pittsburgh, 23 days by wagon via the old turnpike, now took about four days, at blazing speeds of up to 15 miles per hour. The portage railroad operated until 1857.

Allegheny Portage Railroad
brought change to the landscape as well as the region's population. Trees were cleared and rolling land graded for the right-of-way. Quarries supplied stone for construction. Sheds housed machinery, livestock, and workers. Inns and taverns served travelers. Mines and iron foundries took advantage of

the new, inexpensive mode of transportation. Still more trees were felled to fuel the locomotives. This generalized scene from the 1840s shows a portion of the railroad with flat levels, inclined planes, and other elements that made the system work.



Canal Basin East- and west-bound canals met the portage railroad at Johnstown and Hollidaysburg. This generalized view depicts elements of both canal basins. Freight and passengers were transferred between canal boats and railcars. Sectional boats could be uncoupled and loaded—with freight intact—directly onto flatbed cars.



Balancing the Load When possible, "up" and "down" loads moved simultaneously to balance the weight and reduce strain on the stationary engines.

Head and Foot Where the level track met the incline, cars were detached from the locomotives and fastened to continuous ropes running between the incline's rails.

Locomotives Steam locomotives, fueled by wood, pulled rail cars back and forth along the levels. Depending on its length, one to four locomotives worked a level at the same time. At inclines, locomotives reversed direction on "wye" tracks or turntables.

Turning Weeks into Days across Pennsylvania

Coal, agricultural products, and other raw materials went east. Manufactured goods and news of the world went west. People traveled in both directions, eager to conduct business, visit relatives, or just see something new.

Entire communities sprang up along the Main Line with inns, merchants, mechanics, laborers, and toll collectors. Inns like the

Lemon House were the historic counterparts of today's truck stops and interstate service plazas.

The portage railroad even became part of the Underground Railroad. In Columbia, black businessmen William Whipper and Stephen Smith risked their own freedom by secretly helping hundreds of escaped slaves to freedom via the Main Line.

Inclines and Levels Because steam locomotives were not powerful enough for a continuous grade, the portage "stairstepped" up and down the mountain. Short inclines were separated by levels that could stretch many miles.

Incline 1
Length 1,608 ft, Lift 150 ft

Level 2 (Long Level)

Incline 2
Length 1,760 ft, Lift 132 ft

Incline 3
Length 1,480 ft, Lift 131 ft

Incline 4
Length 2,195 ft, Lift 188 ft

Incline 5
Length 2,629 ft, Lift 202 ft

Level 6 (Summit Level)

Incline 6
Length 2,714 ft, Lift 267 ft

Level 7 (Short Level)

Incline 7
Length 2,655 ft, Lift 261 ft

Incline 8
Length 3,117 ft, Lift 308 ft

Incline 9
Length 2,721 ft, Lift 190 ft

Incline 10
Length 2,296 ft, Lift 181 ft

Level 11

The 1,400-foot change in elevation over Allegheny Mountain was divided into 10 inclined planes separated by levels.

The 36-mile route between Johnstown and Hollidaysburg took about 6 hours.

Johnstown

Hollidaysburg

Discover the Allegheny Portage Railroad



Imagine living on the western frontier and receiving a shipment from the big city.

VISITOR CENTER Find information, exhibits (including working railroad models), a film, and bookstore. Short trails lead to Engine House 6, Lemon House, Six to Ten Trail, Skew Arch Bridge, and the picnic area.



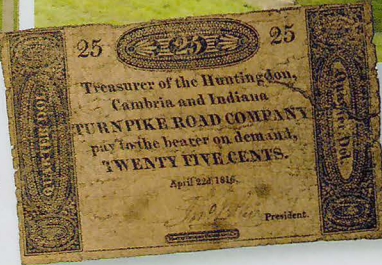
ENGINE HOUSE 6 Reconstructed over the original foundation, the building houses full-scale models of the incline machinery. Exhibits explain the technology.

Right: By 1849 hemp rope was replaced by much stronger iron wire rope, a new invention by John Roebling of Brooklyn Bridge fame.



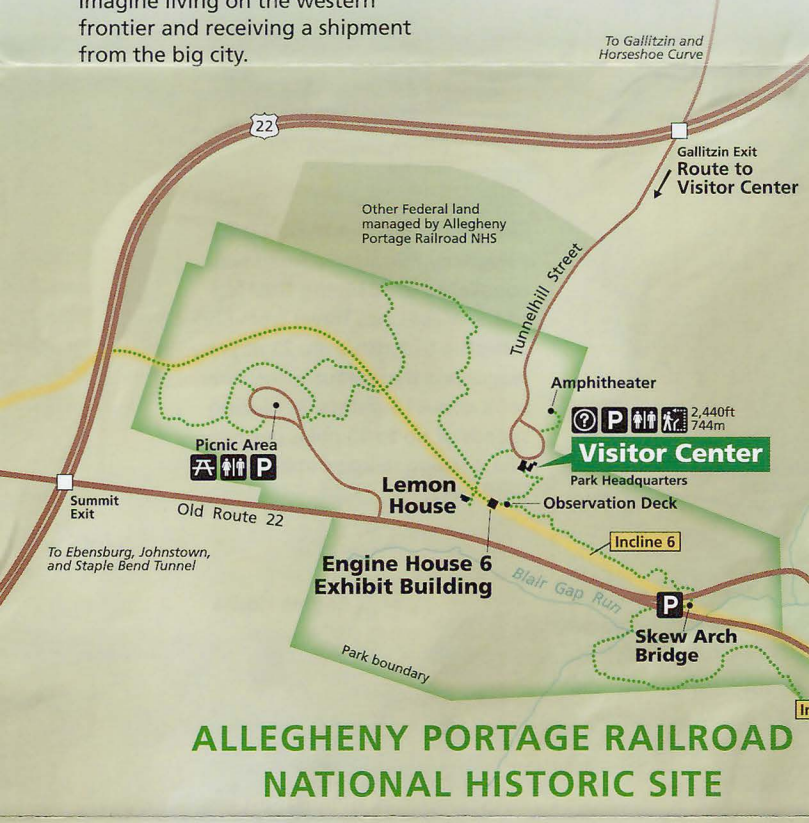
LEMON HOUSE Built by Samuel Lemon in the early 1830s, this railside tavern provided travelers with food, drink, and camaraderie. The Lemon family lived on the

second floor. Today, the dining room, bar, and parlor are restored to their appearance in the 1840s. Exhibits chronicle the tavern's history.



You had to buy a 25-cent ticket—an early version of E-ZPass—to travel the turnpike.

SKEW ARCH BRIDGE This bridge on the old wagon turnpike carried traffic over the railroad tracks on Incline 6. Since the road crossed at an angle, the arch is skewed proportionately.



Explore—and More

Allegheny Portage Railroad National Historic Site, established in 1964, preserves sections of the first railroad to cross the Allegheny Mountains. The tracks are long gone, but the original roadbed is still used for streets and

trails. Restored and reconstructed buildings, expertly crafted stone culverts and tunnels, early industrial sites, exhibits, and ranger-led programs take you back to a time when the faraway world arrived by rail.



6 TO 10 TRAIL From the visitor center area, the trail heads south-east on or near the original railroad bed. The trail is unpaved and steep in places. Wear appropriate shoes and watch out for rattlesnakes, ticks, and poison ivy. No motorized vehicles; bicycles are permitted only on certain sections.



STAPLE BEND TUNNEL Completed in 1833, this is the first railroad tunnel in the United States. Walk or bicycle the 2-mile trail to and through this restored 901-foot tunnel.

From the visitor center: US 22 west 17.5 miles to Mundy's Corner/Nanty Glo exit; right onto PA 271 south; 5 miles to left turn on Mineral Point Rd.; 2 miles to right turn on Beech Hill Rd.; through railroad underpass to parking area on right.

Safety and Regulations Much of the portage railroad is next to or covered by busy highways. Be cautious when stopping. • Camping, hunting, open fires, and removal of objects are prohibited. • Off-road driving prohibited on federal lands. • Pets must be leashed at all times. • For firearms information and other regulations, check the park website.

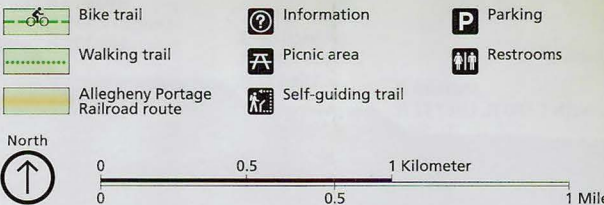
Accessibility We strive to make our facilities, services, and programs accessible to all. For information, call, ask at the visitor center, or check our website.

Allegheny Portage Railroad National Historic Site is one of over 400 parks in the National Park System. To learn more about national parks and National Park Service programs in America's communities, visit www.nps.gov.

More Information
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www.nps.gov/alpo

National Park Foundation
Join the park community.
www.nationalparks.org

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PIECES OF THE PAST Don't miss the original culverts (*below*), track beds, sleeper stones, quarries, and other examples of early industry.



HOLLIDAYSBURG CANAL BASIN PARK Built on the location of the historic canal terminus of the Juniata Division, this local park has reconstructed canal features, exhibit panels, and a visitor center.