

# Dixon Hill Improvement

The following news article appeared in the *Pulaski County Democrat* on February 7, 1946.

## Dixon Hill Narratives in *Railroad Magazine*

The lowdown on Dixon Hill is given by B T. Shukers, Justice of the Peace, Cullen Township, Waynesville, Mo.

“The track winds upward,” he recalls, “in sharp horseshoe curves on a 3.6 percent grade from Jerome, Mo., through Franks to Dixon, 11.5 miles. Many tales are told of narrow escapes on this hill, runaway trains and washouts, some taking a heavy toll in human life, not to mention property damage. For instance, early one morning about 35 years ago eastbound train No. 10, her wooden coaches filled with passengers fell down the hill east of Dixon, left the rail and caught fire. The death list was appalling.”

But today, according to Judge Shukers, long freights hauling war goods and 20-car passenger trains loaded to the vestibules travel over a new Dixon Hill route. After crossing the Gasconade River bridge at Arlington the new track turns left and following the river for two miles, on fills and ledges carved out of the bluff, rising on an easy 1½ percent grade.

“This is truly an engineering feat,” he continues. “A certain cut near the river is 107 feet deep. Along one side of the track, sheer bluffs rise to dizzy heights, and on the other there is a drop straight down to the river. The entire route from Jerome to Dixon is a scenic section of the Ozarks. Whereas the old track followed a snakelike course through



The wreck of the eastbound No. 10 train that Judge Shukers referred to was the wreck of the Frisco Meteor on September 20, 1907. The *Democrat* reported that “...the heaviest property loss ever experienced by the Frisco occurred Monday morning at 8 o’clock on the Dixon Hill in which the “Meteor,” consisting of engine and six coaches, were completely destroyed. According to reports the train was running at from 60 to 75 miles an hour, and when the engine struck a sharp curve the monster locomotive buried itself in the embankment, the baggage car and mail car telescoped the engine, and in a short time, all were in flames.” The engineer and mail clerk were killed. Twenty-eight passengers were “more or less injured.” Courtesy of John Bradbury.

these hills, the new line rises gently on long curves, over high fills and through deep cuts, thus eliminating the need of helper engines.

“The Frisco is now making other changes to eliminate curves and bad hills, no doubt getting ready for post-war competition. Over 67 miles of this section the company has installed a new CTC system.”

The *Democrat* article and Judge Shukers’s comments are in response to an article that appeared in the April 1945 issue of *Trains* magazine. The article was titled “Dixon Hill Improvement—A Photo Story.” The subtitle proclaims “Engineers with modern machines hew new roadbed through Gasconade cliffs to flatten Frisco’s bad grade.” The *Gazette* was surprised by the fact that the project began in early 1944 but garnered little press coverage, particularly by the Pulaski County newspapers and was not acknowledged by the *Democrat* until 1946. The *Rolla*



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Seems we like train wreck images. They are unusual. This is another Frisco wreck on Dixon Hill in 1913. Courtesy of John Bradbury.

*Herald* did announce in January of 1944 that the Frisco would spend \$5,845,429 for improvements that year but made no mention of the project west of that city until August when it noted that “there were several contractors employing several hundred men and were at work for the Frisco Railroad changing the roadbed between Jerome and Dixon. The aim is to cut out the grade on the Dixon Hill.”

The original survey completed

for the construction of the South-West Branch of the Pacific Railroad from St. Louis in the 1840s took the railroad route south of Waynesville. Some construction was done in the 1850s but the Civil War intervened and work stopped at Rolla in 1860, not to resume until 1867. (See 2002 *Old Settlers Gazette*, “Long Time Coming - The Railroad in Pulaski County” by John Bradbury.)

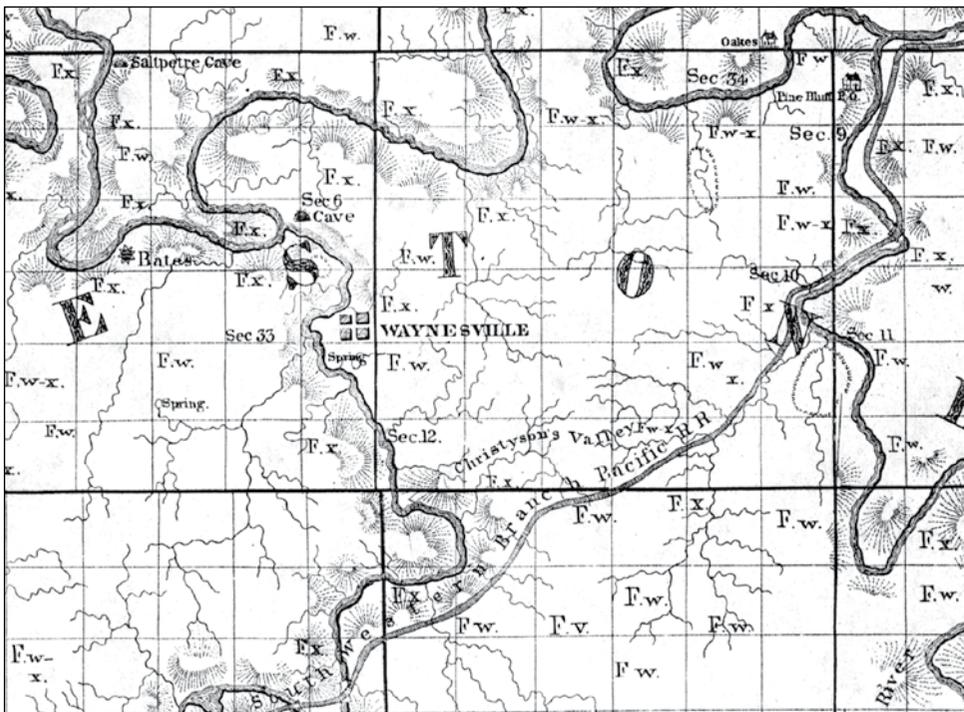
When work resumed after the war, it was determined to cross

Pulaski County on the flatter northern portion rather than the high relief southern route as originally surveyed (below). This route presented its own problems. From the Gasconade valley to the hill crests at what would become Arlington, the roadbed would need to rise some 500 feet. This would require a deep rock cut (previous page top) and the grade would still be steep for a westbound train at 2.3 per cent, requiring a helper engine to reach the plateau. The route was also very crooked. The line was so full of sharp curves that old timers said the fireman could shoot a deer on one curve and pick up the carcass on the next. Conversely, an eastbound train had a steep descent with curves which necessitated slow orders.

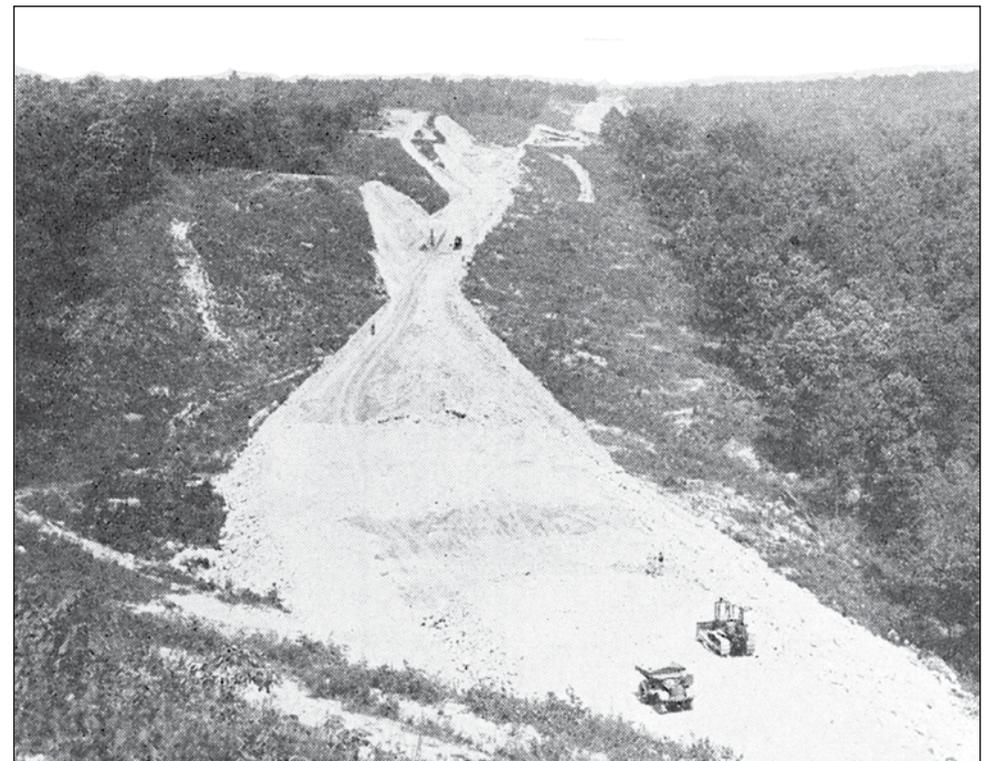
According to the *Rolla Herald* (January 4, 1945) the project has “resulted in relocation of nine miles of Frisco’s main line in the mountainous area of Dixon known to railroaders as ‘Dixon Hill.’ Numerous sharp curves and steep grades which each year

have cost the Frisco thousands of dollars in helper service are being eliminated at an expense of more than \$1,300,000. The relocation will result in a grade reduction of 1.03% (maximum grade of 2.30% has been reduced to 1.27%), a decrease of two miles of track and curvature equivalent to three complete circles is eliminated. Three construction companies have been working on the relocation since early in 1944.”

Work was scheduled to be completed during the first part of 1945. The eastern end of the project still required some grading and signal engineers were relocating the latest innovation on the line, the centralized traffic control equipment (CTC). Trains no longer had to stop while switchmen operated the switches by hand. A man sitting at a console, sometimes 150 miles away, flipped a lever to operate the electrically controlled switches which then activated a red (stop) or go (green) light to signal the train engineer. This improvement resulted in time and fuel savings, along with increased safety.



The original 1855 surveyed roadbed for the railroad across Pulaski County followed a southwesterly route through the Big Piney River and Roubidoux Creek watersheds, passing through Christyson’s Valley, i.e. the farm of Elisha Christeson on the Roubidoux. The country was rugged so a northern route was chosen instead, creating the towns of Dixon, Crocker, Swedeborg, and Richland along the railroad. Portion of a map by Shurmard and Broadhead.



The caption for this Frisco photograph in *Trains* magazine reads “[The] picture looks northwest from the point where the new line swings away from the river. The grade is not apparent but the immensity of the earth work can be judged by the machinery in the distant cut. The old line is hidden by the trees in a ravine to the right.