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Evaluation of the Wharton & Northern Railroad

Megan W. Tooker, Adam D. Smith, and Karlee E. Feinen

March 2022



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Evaluation of the Wharton & Northern Railroad

Megan W. Tooker, Adam D. Smith, and Karlee E. Feinen

*Construction Engineering Research Laboratory
U.S. Army Engineer Research and Development Center
2902 Newmark Drive
Champaign, IL 61822*

Final Report

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Abstract

The Wharton & Northern Railroad was founded in 1905 and combined a series of existing railroads that carried iron ore from the mines located to the south of Picatinny Arsenal, New Jersey. The section of the line north of Picatinny Arsenal was abandoned by Conrail in 1976. The same year, the section of the line south of the Arsenal reverted to Army control and ceased to be utilized.

It is the recommendation of the authors of this report that the Wharton & Northern Railroad right-of-way (ROW) is not eligible for the National Register of Historic Places (NRHP) due to the prior demolition of bridges, trestles, yards, and stations throughout.

There are certain archaeological sites associated with the railroad that need to be investigated further for Criterion D, such as the Arsenal, Factory, Navy Depot, and Lake Denmark stations. These archeological sites may be eligible for the NRHP due to their association with the Wharton & Northern, but those determinations were beyond the purview of this report.

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Preface

This study was conducted for the Environmental Affairs Division at Picatinny Arsenal, New Jersey, under Project 481191, “National Register of Historic Places (NRHP) Evaluation for Former Wharton Northern Railroad,” MIPR 11319151. The technical monitor was Jason Huggan (chief, Environmental Affairs Division, DPW).

The work was performed by the Land and Heritage Conservation Branch, of the Installations Division, of the Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL). At the time of publication, Ms. Ellen Hartman was chief, Land and Heritage Conservation Branch; Mr. Charles Schroeder was chief, Installations Division. The deputy director of ERDC-CERL was Ms. Michelle Hanson, and the director was Dr. Andrew Nelson.

COL Teresa A. Schlosser was commander of ERDC, and Dr. David W. Pittman was the director.

1 Methodology

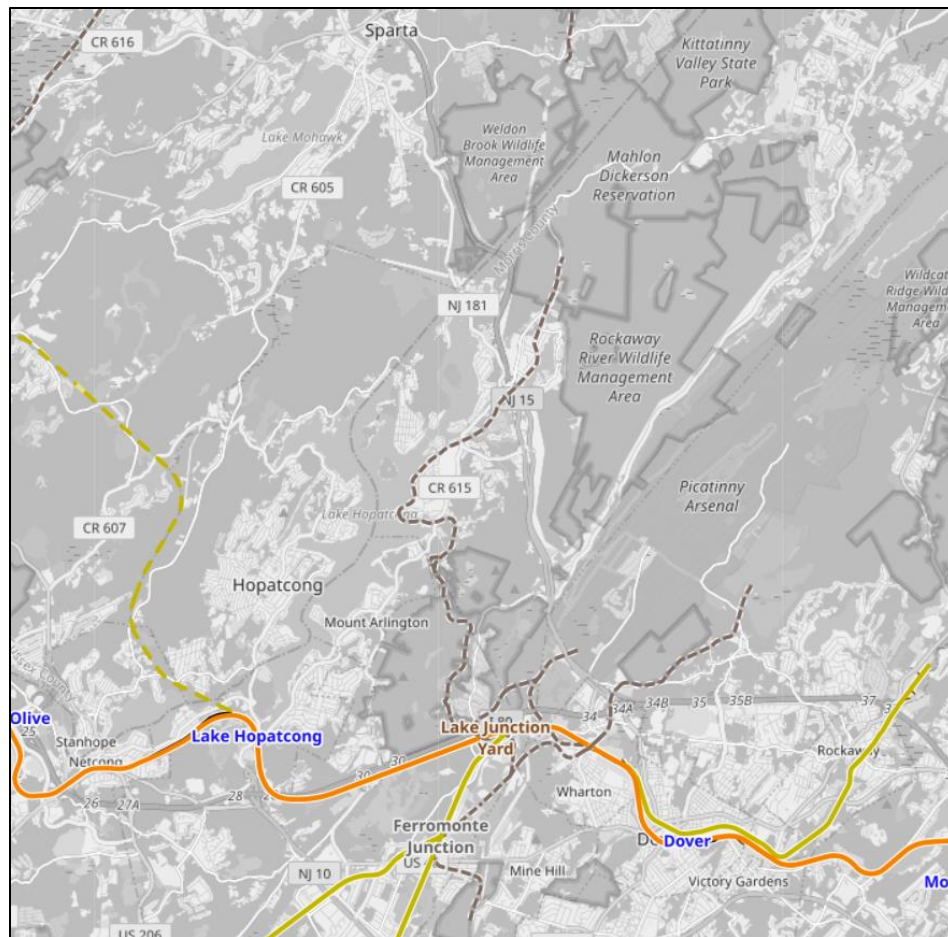
1.1 Background

The U.S. Congress codified the National Historic Preservation Act of 1966 (NHPA), the Nation's most effective cultural resources legislation to date, in order to provide guidelines and requirements for preserving tangible elements of our Nation's past. This preservation was done primarily through creation of the National Register of Historic Places (NRHP). Contained within this piece of legislation are requirements for Federal agencies to address their cultural resources, defined as any prehistoric or historic district, site, building, structure, or object (NHPA, Sections 110 and 106). Section 110 requires Federal agencies to inventory and evaluate their cultural resources. Section 106 requires the determination of effect of Federal undertakings on properties deemed eligible or potentially eligible for the NRHP.

Picatinny Arsenal is located in Rockaway and Jefferson Townships in Morris County, New Jersey. The installation is located 32 miles northwest of Newark and 42 miles west of New York City. Picatinny Arsenal began as a War Department powder depot in 1880 and evolved into one of the Army's most important armament research and development centers.

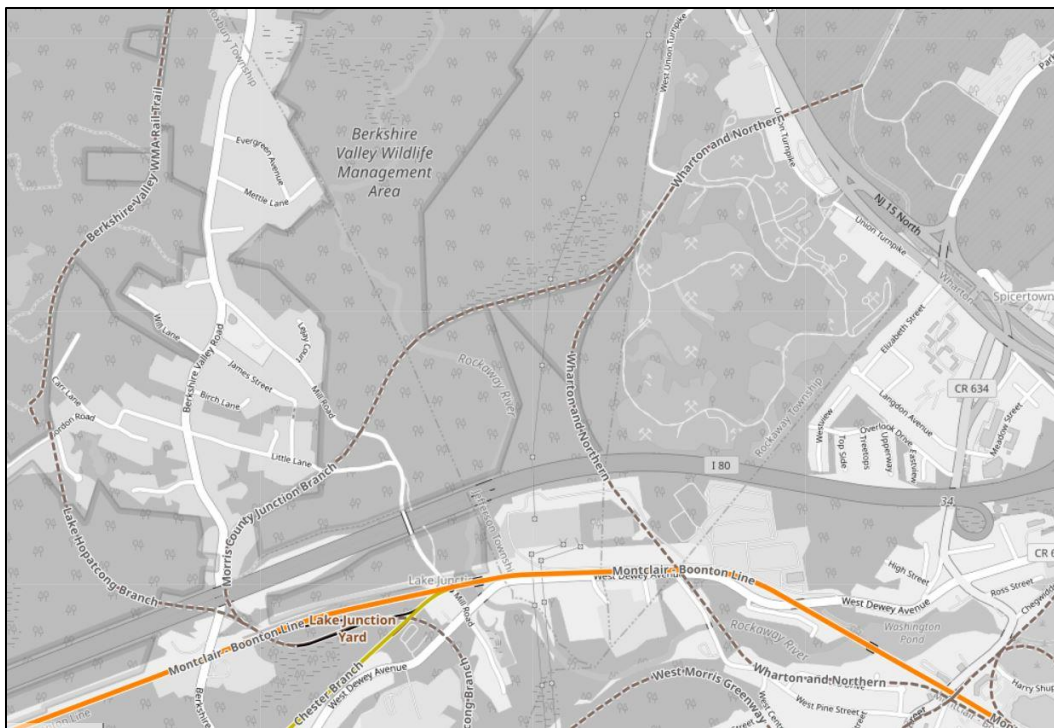
In 1887, the Wharton & Northern Railroad signed a 99-year lease with the U.S. Army, which ended in 1986. Presently the railroad right-of-way (ROW) north of First Street inside Picatinny is abandoned, with portions of it utilized as a path for a golf course. The portion northeast of the installation boundary is utilized as an unofficial walking trail (ownership status is unknown, but it is not owned by the Federal Government) (Figure 1). The portion of the ROW south of First Street is no longer functioning although rails, ties, and roadbed are extant except where the ROW crosses New Jersey State Route 15, where the ROW crosses Little Lane, and the portion south of Little Lane to the ROW's former connection with a series of privately owned railroads at Lake Junction (Figure 2). The ownership of the portion marked as Wharton & Northern in Figure 2, located south of the portion owned by the Federal Government (Morris County Junction Branch), is unknown (although it is likely owned by the State of New Jersey Department of Environmental Protection).

Figure 1. Current rail lines surrounding Picatinny Arsenal (abandoned lines in *brown dash*; main lines in *orange*; spur lines in *yellow*).



Source: OpenRailwayMap. Map data from [OpenStreetMap](#) contributors, 2021. Open Database License.

Figure 2. Detail of current rail lines south of Picatinny Arsenal to Lake Junction (abandoned lines in *brown dash*; main lines in *orange*; spur lines in *yellow*).



Source: OpenRailwayMap. Map data: [OpenStreetMap](#) contributors, 2021. Open Database License.

1.2 Objective

The objective of this report was to evaluate the former Wharton & Northern Railroad as it extends from the former town of Charlotteburg to the Borough of Wharton, with much of the line extending through Picatinny Arsenal. Since the line is no longer in use, nearly the entirety of the portion on the Picatinny installation has been removed (except for the portion south of First Street). In addition, the portion of the line from Picatinny to the former town of Charlotteburg has been removed and is under private ownership. The portion from Picatinny into Wharton remains and is owned by the Federal Government. An evaluation based on NRHP standards will allow for Picatinny Arsenal to comply with Section 106 (NHPA) and the National Environment Policy Act (NEPA) as the installation is proposing to remove the remaining portions of the Wharton & Northern Railroad within Picatinny from Real Property records.

1.3 Researchers

This project was conducted by the U.S. Army Corps of Engineers, Engineering Research Development Center, Construction and Engineering Research Laboratory (ERDC-CERL), based in Champaign, IL. The research

team included Megan Tooker, Master of Landscape Architecture, a landscape historian with 23 years of experience; Adam D. Smith, Master of Architecture with 23 years of experience in military architectural history; and Karlee E. Feinen, a historic preservation Federal intern.

1.4 Site visits

1.4.1 Picatinny Arsenal

ERDC-CERL personnel made one trip to Picatinny Arsenal and the surrounding areas in May 2019 to inventory and photograph the Wharton & Northern and adjacent rail lines. A second trip to the Morris County Courthouse was done in July 2020.

1.4.2 Archival repositories

ERDC-CERL researchers conducted a review of books, archival repositories, and online resources related to the Wharton & Northern. The following were either contacted or searched:

- NRHP listings and nomination forms (online at <https://www.nps.gov/Nr/publications/index.htm>);
- Historic drawings, maps, photographs, and information provided by the Cultural Resources Manager at Picatinny Arsenal;
- Morristown and Morris Township Public Library;
- Wharton Public Library; and
- Morris County Courthouse.

1.5 Analysis

Initial research gathered information available in text documents, photographs, and historic maps. These archival sources were integrated with field information to detail the history of the Wharton & Northern in both text and images.

Using information from the historic context, the overarching historic integrity was evaluated per the NRHP's definition. A cultural resource can retain or lose its historic integrity, meaning that it either does or does not convey its historic significance. From this evaluation process, a recommendation of eligibility to the NRHP was made. The evaluation followed guidelines published by the National Park Service (NPS) in National Reg-

ister Bulletin #15, *How to Apply the National Register Criteria for Evaluation*;¹ National Register Bulletin #16A, *How to Complete the National Register Registration Form*;² the National Register Bulletin, *How to Prepare National Historic Landmark Nominations*;³ and *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.⁴

¹ National Park Service, *National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation* (Washington, DC: U.S. Department of the Interior, National Park Service, 1997).

² National Park Service, *National Register Bulletin #16A: How to Complete the National Register Registration Form* (Washington, DC: U.S. Department of the Interior, National Park Service, 1997).

³ National Park Service, *National Register Bulletin: How to Prepare National Historic Landmark Nominations* (Washington, DC: U.S. Department of the Interior, National Park Service, 1997).

⁴ Kay D. Weeks and Anne E. Grimmer, *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (Washington, DC: U.S. Department of the Interior, National Park Service, 1995).

2 History of the Wharton & Northern Railroad

Transportation in and out of the northwestern portion of New Jersey was difficult during the Colonial period and the early years of the Federal Republic due to the series of mountain ridges that run southwest to northeast throughout the area. In addition, this area has some of the highest topography of New Jersey. Iron ore in the region was so plentiful, it could be gathered from the surface. In 1750, Colonel Jacob Ford erected two iron forges at the Rockaway River falls in Mount Pleasant, New Jersey, and then, in 1795, Charles Hoff erected the Washington Forge in what would become Port Oram, New Jersey.⁵ Iron ore was forged in the area and shipped out via wagon to the ports surrounding Newark, New Jersey.

The Morris Canal was the first long-distance transportation network to connect the region not only eastward to the ports in Newark but also westward to the Susquehanna River (Figure 3). It was completed in 1831.⁶ The canal was located south of the Rockaway River and the Washington Forge.

Figure 3. Photograph of Lock 2 on the Morris Canal in Wharton, no date.



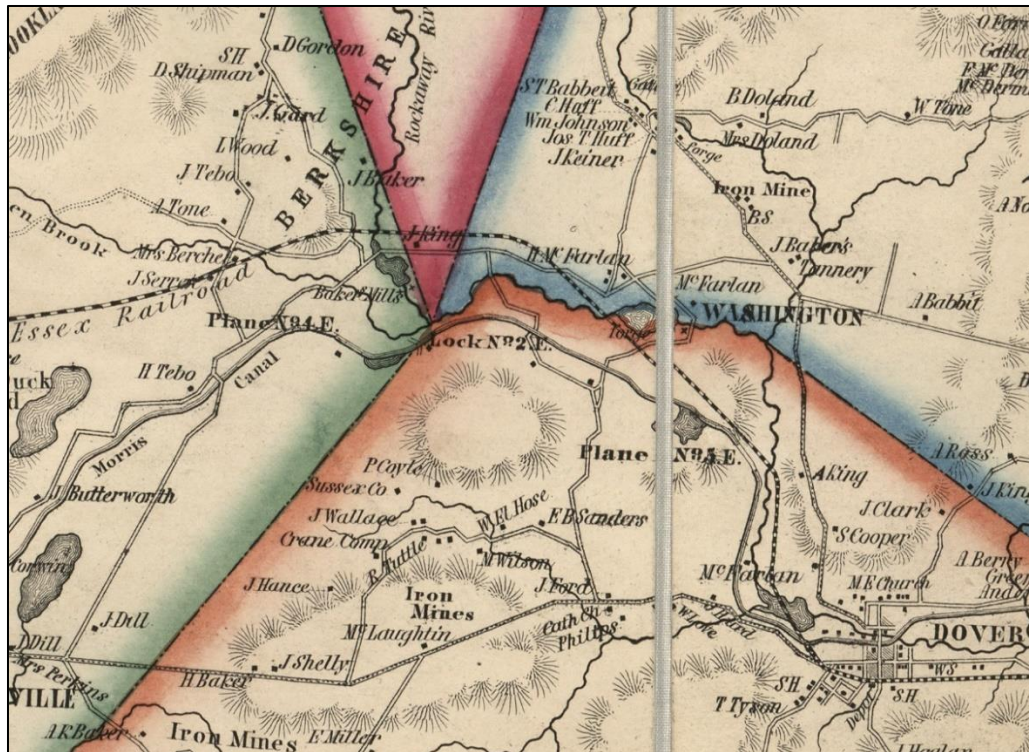
Source: New Jersey State Archives. Public domain.

⁵ Ken Branson, "The Rockaway River Fights for Its Future," *Daytrips and Tours, Skylands Visitor*, Fall 2002, <https://njskylands.com/tnrockawayriv..>

⁶ Morris County Heritage Commission, *Morris County Historic Sites Survey, Wharton Borough* (Morriston NJ: Morris County Heritage Commission, 1987), 1.

The Morris and Essex Railroad (which turned into the Delaware, Lackawanna, and Western) pushed through the area in 1848 (Figure 4).⁷

Figure 4. Detail of Morris County map showing the Wharton area.



Source: *Map of Morris County*. 1853. Library of Congress. Public domain.

Port Oram, New Jersey, was founded by Robert Oram and James Hance, who purchased the area south of the canal in 1859 and erected a store.⁸

The Hibernia Mine Railroad was incorporated on March 18, 1863 to allow transport of iron from the various mines located north of Port Oram, Dover, and Rockaway to the Morris Canal. The Hibernia Mine Railroad utilized horse power at first and then transferred to steam power in 1868. In March 1866, the Mount Hope Mineral Railroad was founded to transport iron from the Mount Hope mines to the Morris Canal and the Morris and Essex Railroad in Port Oram (Figure 5).⁹ The Dover and Rockaway Rail-

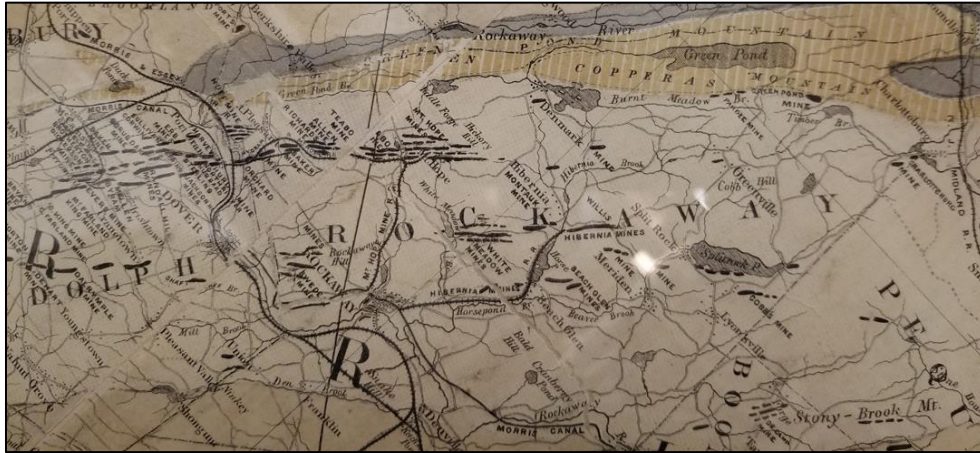
⁷ *History of Morris County, New Jersey* (New York: W. W. Munsell, 1882), 357.

⁸ *Morris County Historic Sites Survey*, 1.

⁹ *History of Morris County*, 358.

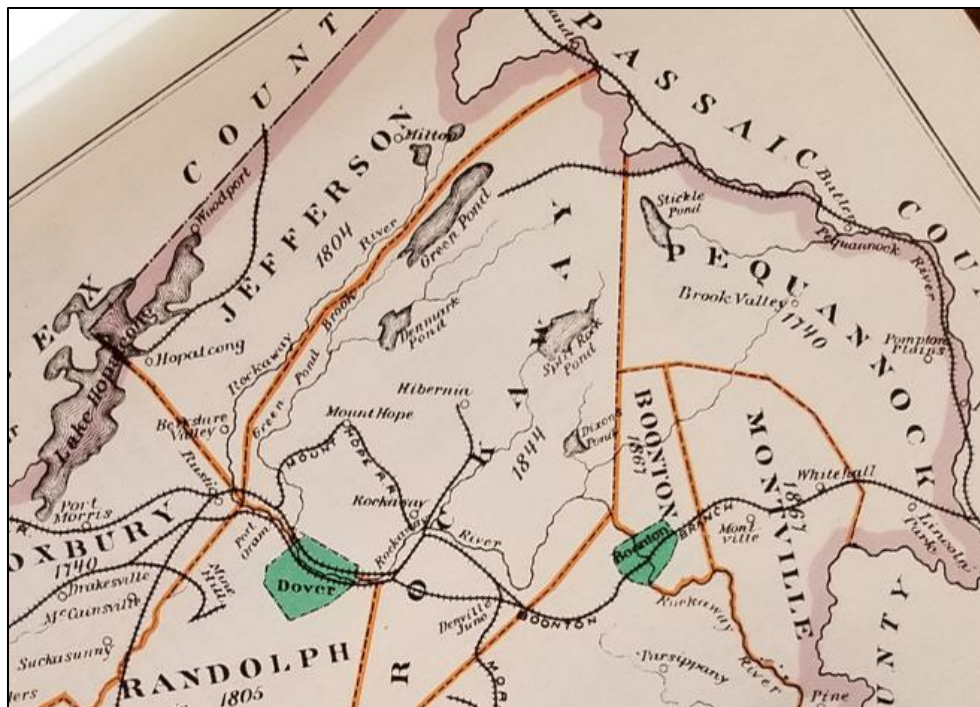
road was founded in 1879 to connect the end of the Hibernia Mine Railroad to the end of the Central of New Jersey Railroad in Port Oram (Figure 6).¹⁰

Figure 5. Portion of Iron Ore and Limestone Districts Map, 1874.



Source: Morristown and Morris Township Public Library. Public domain.

Figure 6. Portion of Morris County map, 1882.



Source: Outline Map of Morris County, New Jersey, 1882. Wharton Public Library. Public domain.

¹⁰ History of Morris County, 358.

The Port Oram Iron Furnace was founded in 1868 and was purchased by Joseph Wharton of Philadelphia in 1882.¹¹

The borough of Port Oram was incorporated in 1895, and its name was changed to Wharton in 1902.¹²

2.1 Green Pond Railroad

The Green Pond Railroad was incorporated on February 12, 1874 to provide a connection to the Green Pond Iron Mining Company, located on the east side of Green Pond and established in 1872.¹³ The Green Pond Mine, also known as Copperas Mine, was located on the estate of Andrew B. Cobb. Cobb was a judge who owned land in the north of Morris County, including a mine, forge, and furnace at Split Rock.¹⁴ The company laid four miles of track from Green Pond Junction (near Newfoundland, New Jersey) to Green Lake Station (near Egbert's Lake Park) at a cost of \$74,610 and in less than four months' time.¹⁵ The railroad was sold following a foreclosure and reorganized as the Charlottesburgh [sic] & Green Lake Railroad on November 18, 1876.¹⁶

2.2 Charlottesburgh [sic] and Green Lake Railroad

No new track was laid for the Charlottesburgh & Green Lake Railroad.¹⁷ There was a branch of 1,206 feet to the Green Pond Mines.¹⁸ The Green Pond Mines operated sporadically during the 1870s and 1880s, and the railroad suffered, never being as profitable as those carrying ore from the Hibernia or Mount Hope mines. In 1883, the railroad built spurs to the Davenport and Pardee Mines located east of Green Pond Road.¹⁹ The railroad merged with the Morris County Railroad on July 17, 1888.

¹¹ *Morris County Historic Sites Survey*, 2.

¹² *Ibid.*, 4.

¹³ Larry Lowenthal, *Iron Mine Railroads of New Jersey* (Dover, NJ: The Tri-State Railway Historical Society, Inc., 1981), 113.

¹⁴ *Ibid.*, 114.

¹⁵ *Ibid.*, 113

¹⁶ Interstate Commerce Commission, *Interstate Commerce Commission Reports*, vol. 133, *Decisions of the Interstate Commerce Commission of the United States* (Washington: Government Printing Office, 1928).

¹⁷ *Ibid.*

¹⁸ Lowenthal, *Iron Mine Railroads of New Jersey*, 114.

¹⁹ Lowenthal, *Iron Mine Railroads of New Jersey*, 117.

2.3 Morris County Railroad

The Morris County Railroad was incorporated on November 24, 1885. By mid-December, ground was broken for a rail line adjacent to Denmark Pond.²⁰ A bill was introduced to Congress on January 30th to grant the railroad a right-of-way through the Picatinny Powder Depot. It was passed on April 27, 1886. The company laid 9.90 miles of tracks from Green Lake Station (near Egbert's Lake Park) southwest to Lake Junction (near the intersection of West Dewey Avenue and Mill Road) in 1886. In March 1887, the switch was laid, connecting the Morris County Railroad with the Central New Jersey Hopatcong Branch.²¹ The first powder was shipped on March 12, 1887, while work was still underway on the upper end of the line near Green Pond. The company absorbed the Charlottsburgh and Green Lake Railroad on July 17, 1888 (Figure 7). Also in 1888, Joseph Wharton built a railroad to connect his mines at Upper Hibernia to the Morris County Railroad, perhaps to avoid the rates of the Hibernia Underground and Hibernia Mine Railroads.²² Port Oram was the focus of the transportation system in this part of Morris County (Figure 8).²³

The railroad initiated passenger service in January 1889, although the service was operated and equipped by the Central New Jersey Railroad.²⁴ Ore and freight travelled from their origin to either the Lackawanna or Susquehanna lines (Figure 7). Passengers travelled to and from the Lackawanna Depot in Wharton. The Green Pond Hotel on Green Pond and the Merritt Park Hotel (later the Lake Denmark Hotel) on Lake Denmark were popular vacation spots on the line (Figure 8–Figure 11).

²⁰ Ibid., 118.

²¹ Ibid., 118.

²² Ibid., 118.

²³ *Interstate Commerce Commission Reports*, vol. 133, 1928.

²⁴ Lowenthal, *Iron Mine Railroads of New Jersey*, 120.

Figure 7. Detail of map showing route of the Morris County Railroad from Lake Denmark past Green Pond, 1887.



Source: Map of the Railroads of New Jersey. 1887. Library of Congress. Public domain.

Figure 8. Timetable and list of stations for the Morris County Railroad, 1905.

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MORRIS COUNTY RAILROAD

The new schedule of tralus on the Morris County Railroad, in effect May 29, 1905, affords an excel-
lent opportunity for spending a day at Lake Den-
mark or Green Lake, affording a view of the most
picturesque section of New Jersey.

TIME TABLE.

South—Daily except Sundays

Stations.	1	3	5
	a. m.	a. m.	p. m.
Green Pond Junction.....		10:45	3:45
Mutual Junction.....		11:05	
Green Lake.....	6:55	11:10	
		11:55	4:20
Oreland.....	6:30		
Posttown.....	6:40		
Oreland Junction.....	7:05	12:05	4:30
Lake Denmark.....	7:10	12:10	4:35
Navy Depot.....	7:15	12:15	4:40
Piccatinny.....	7:20	12:20	4:45
Mount Pleasant.....	7:25	12:25	4:50
Wharton Junction.....	7:30	12:30	4:55
Wharton.....	7:35	12:35	5:00

North—Daily except Sundays.

Stations.	2	4	6
	a. m.	p. m.	p. m.
Wharton.....	9:20	2:05	5:50
Wharton Junction.....	9:25	2:10	5:55
Mount Pleasant.....	9:30	2:15	6:00
Piccatinny.....	9:35	2:20	6:05
Navy Depot.....	9:40	2:25	6:10
Lake Denmark.....	9:45	2:30	6:15
Oreland Junction.....	9:50	2:35	6:20
Posttown.....			6:42
Oreland.....			6:50
Green Lake.....	10:00	2:45	6:30
Mutual Junction.....			
Green Pond Junction.....	10:20	3:05	

SOUTH.

SUNDAYS ONLY.

NORTH.

7	9	Stations.	8	10
a. m.	p. m.		a. m.	p. m.
9:35	6:25	Wharton	10:45	6:30
9:30	6:20	Wharton Junction	10:50	6:35
9:25	6:15	Mount Pleasant	10:55	6:40
9:20	6:10	Piccatinny	11:00	6:45
9:15	6:05	Navy Depot	11:05	6:50
9:10	6:00	Lake Denmark	11:10	6:55
9:05	5:55	Oreland Junction	11:15	7:00
8:40		Posttown		7:22
8:30		Oreland		7:30
8:55	5:45	Green Lake	11:25	7:10
		Mutual Junction		
		Green Pond Junc.		

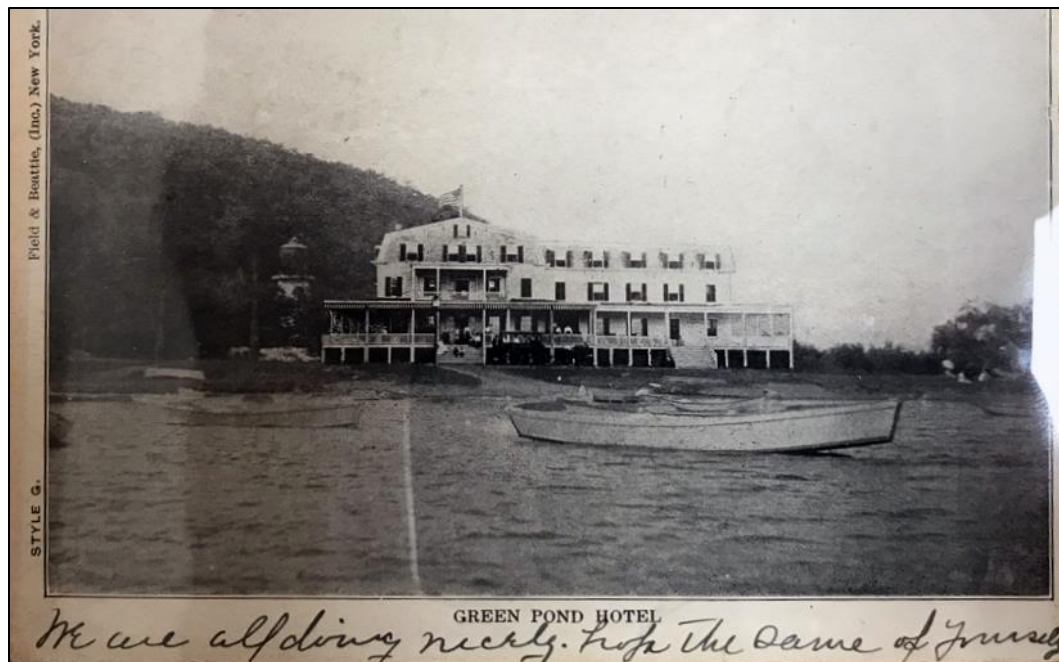
CONNECTIONS.

No. 1 connects with D. L. & W. train No. 504

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Source: *The Iron Era*, August 11, 1905. Public domain.

Figure 9. Postcard view of the Green Pond Hotel on Green Pond accessed by the Morris County Railroad, 1907.



Source: Morristown and Morris Township Public Library. Public domain.

Figure 10. Advertisement for the Merritt Park Hotel on Lake Denmark, 1888.



Source: New York Tribune, June 4, 1888. Public domain.

Figure 11. Looking east at Lake Denmark Hotel, no date.



Source: John Dunado with the Historical Society of Rockaway Township. Public domain.

2.4 The Port Oram Railroad

The Port Oram Railroad was incorporated on June 22, 1886. The company laid out 0.40 miles of connecting track in Wharton, New Jersey, in 1890 (Figure 12).²⁵

²⁵ *Interstate Commerce Commission Reports*, vol. 133, 1928.

Figure 12. Detail of Morris County Connecting Railroad map showing location of the Port Oram Railroad in the center of Wharton, 1901.



Source: Morristown and Morris Township Public Library. Public domain.

2.5 Hibernia Branch Railroad

The Hibernia Branch Railroad was incorporated on July 17, 1888. The company laid four miles of track from Oreland Junction (near the north end of Lake Denmark) to Oreland (near the end of Upper Hibernia Road), New Jersey in 1890.²⁶ In 1901, Joseph Wharton purchased the Andover Mining Company which gave him ownership of all the mines at Hibernia.²⁷ He then purchased the Hibernia Mine Railroad. Around 1900, Wharton named the settlement around his Upper Hibernia Mines “Oreland” and the Hibernia Branch became known as the Oreland Branch.²⁸

2.6 Morris County Connecting Railroad

The Morris County Connecting Railroad was incorporated on July 1, 1901. In 1902, the company laid 1.75 miles from the Wharton Junction to Wharton. Part of the tracks were on a long trestle over the Lackawanna and Dewey Avenue and then another long trestle that crossed the Rockaway River which allowed access through central Wharton and into the Wharton

²⁶ *Interstate Commerce Commission Reports*, vol. 133, 1928.

²⁷ Lowenthal, *Iron Mine Railroads of New Jersey*, 122.

²⁸ *Ibid.*, 122.

Iron Works (Figure 13). It was absorbed into the Wharton & Northern Railroad in 1905.²⁹

Figure 13. Trestle over the Lackawanna and Dewey Avenue, no date.



Source: Morristown and Morris Township Public Library. Public domain.

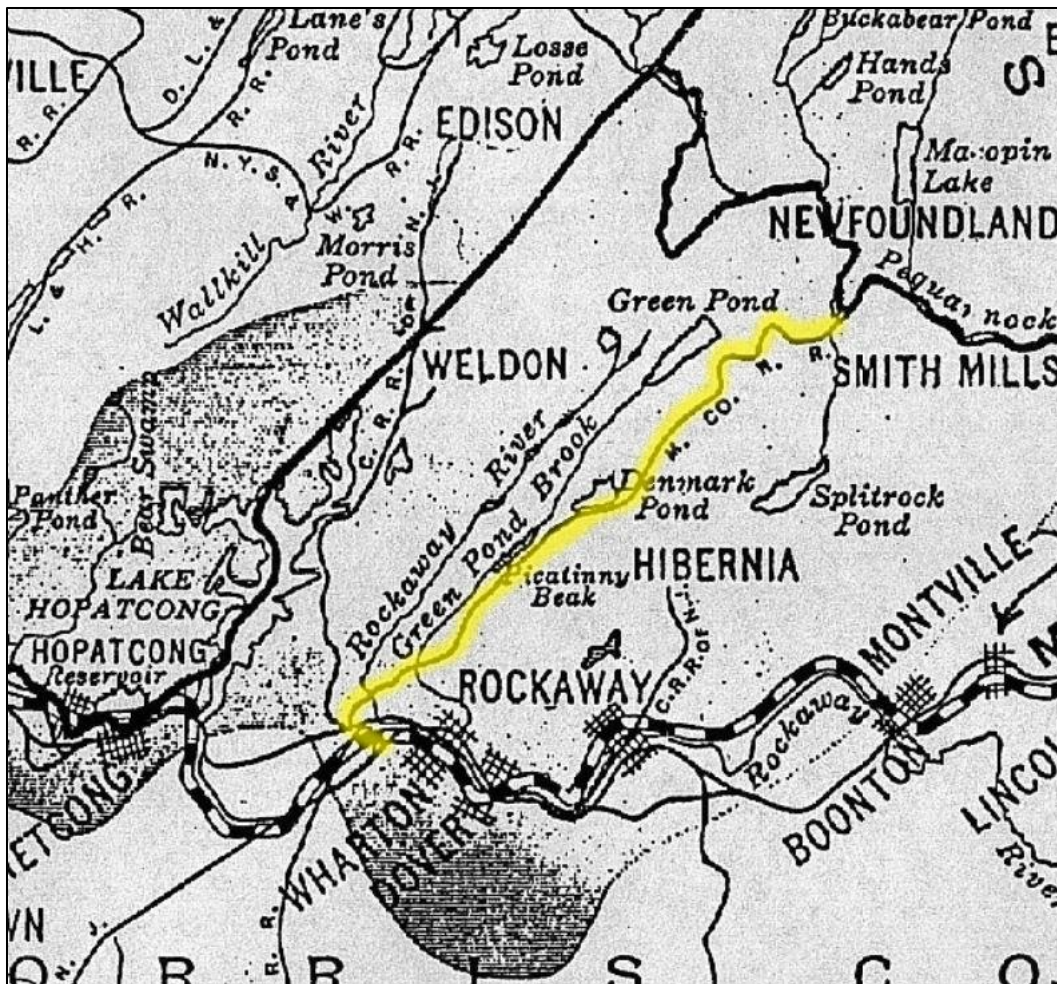
2.7 Wharton & Northern Railroad

The Wharton & Northern was incorporated on December 7, 1905 with 20.576 miles of main track and 5.606 miles of yard tracks and sidings. The new railroad absorbed the Morris County Railroad, the Port Oram Railroad, the Hibernia Branch Railroad, and the Morris County Connecting Railroad (Figure 14). It had 5 steam locomotives (Figure 15–Figure 16) and 23 freight cars. The railroad was controlled by the Wharton Steel Company.³⁰ The route for the railroad went from Green Pond Junction where it connected to the New York, Susquehanna, and Western Railroad (Susquehanna) (Figure 17) southwest through Picatinny Arsenal where it connected to the Delaware, Lackawanna & Western Railroad (Lackawanna) at Lake Junction with rights of use through Wharton to the Wharton depot (Figure 18). A second line allowed for direct access through central Wharton (Figure 19) directly into the Wharton Iron Works with a long trestle and bridge over the Rockaway River (Figure 20).

²⁹ *Interstate Commerce Commission Reports*, vol. 133, 1928.

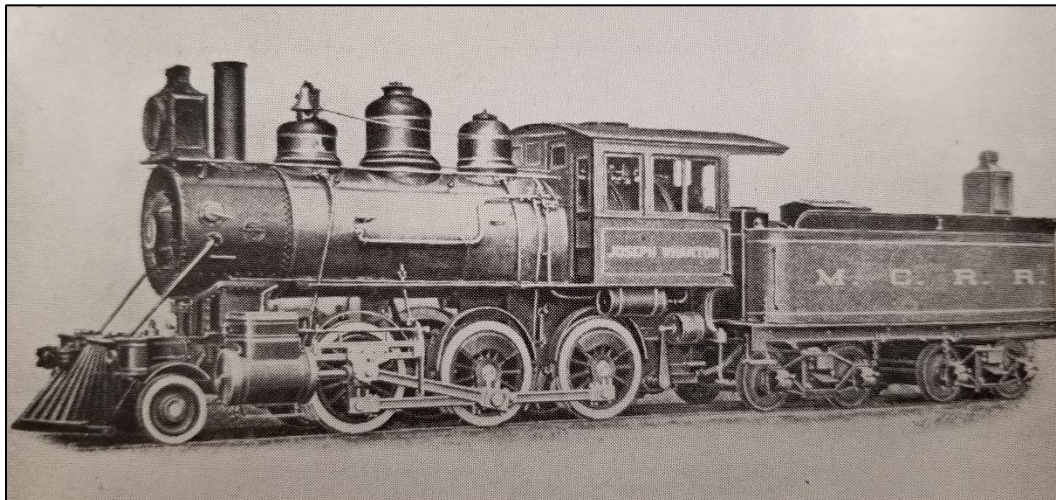
³⁰ *Ibid.*

Figure 14. Detail of New Jersey railroads map with the Wharton & Northern highlighted in yellow (note the line is still marked as Morris County Railroad), 1921.



Source: Rand McNally, *Morris Canal Profile Map*. 1921. Canal Society of New Jersey. Public domain.

Figure 15. Morris County #1 steam locomotive and coal car, no date.



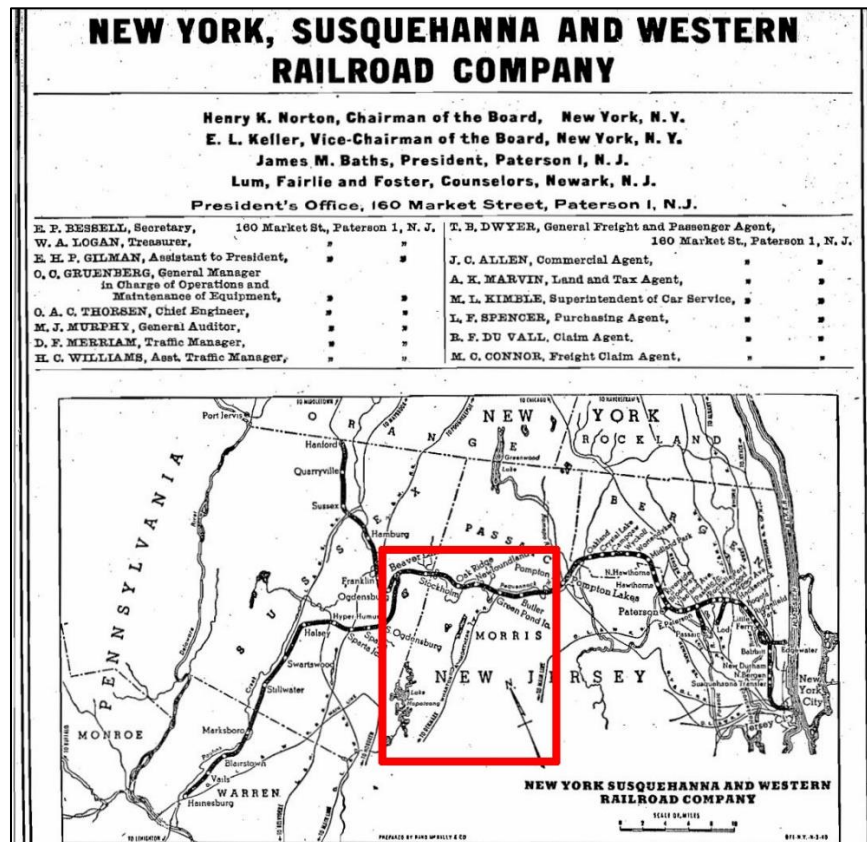
Source: Morristown and Morris Township Public Library. Public domain.

Figure 16. Looking northeast at a Wharton & Northern locomotive and passenger cars, no date.



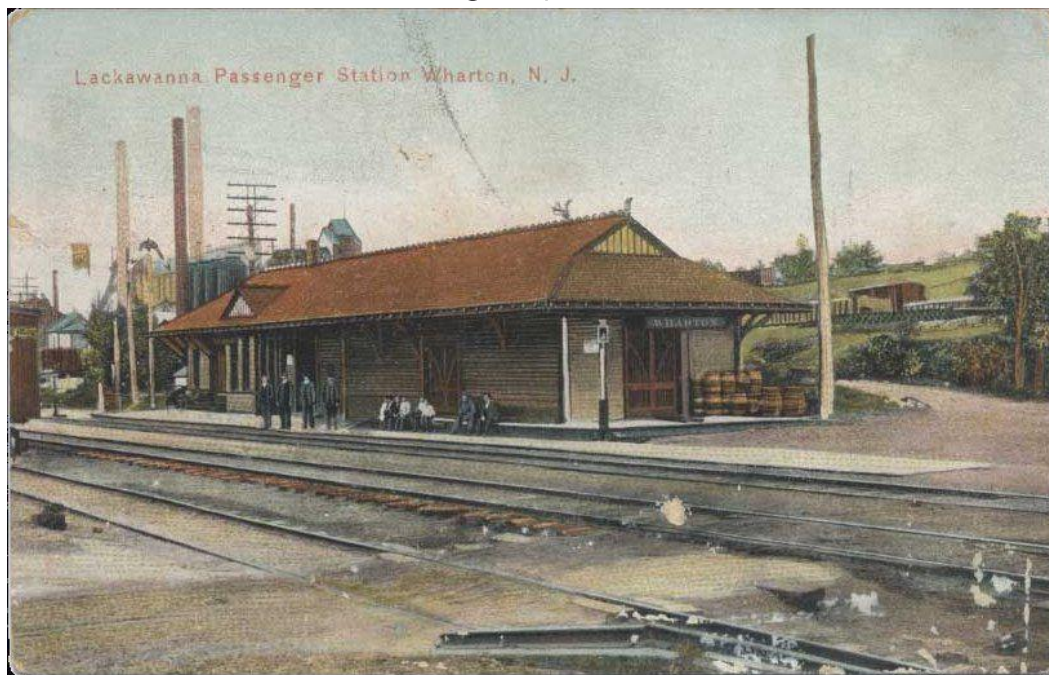
Source: Robert L Bracklow Collection, New York State Archives. Public domain.

Figure 17. Route map for the New York, Susquehanna, and Western Railroad, 1923.



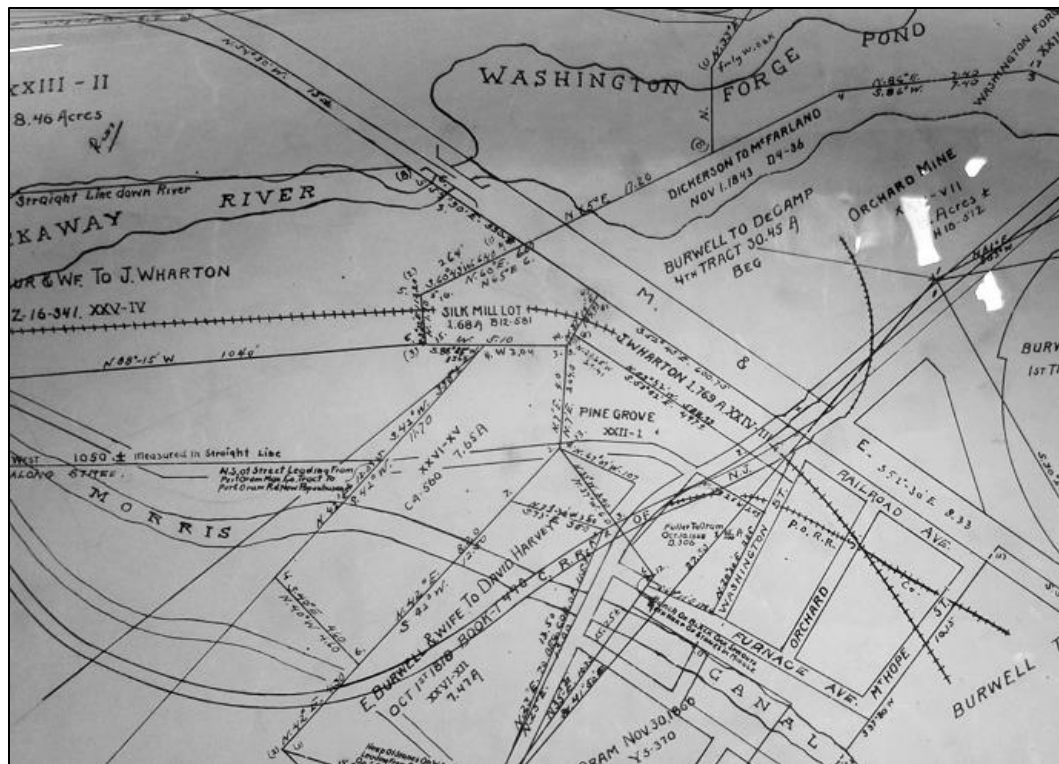
Source: Rutgers University. Public domain.

Figure 18. Wharton depot on the Lackawanna railroad (note Wharton Iron Furnace in background), no date.



Source: John Dunado with the Historical Society of Rockaway Township. Public domain.

Figure 19. Detail of Morris County connecting railroad map showing location of the Port Oram Railroad in the center of Wharton, 1916.



Source: Map Showing Part of Property of Wharton Steel Company. 1916. Morristown and Morris Township Public Library. Public domain.

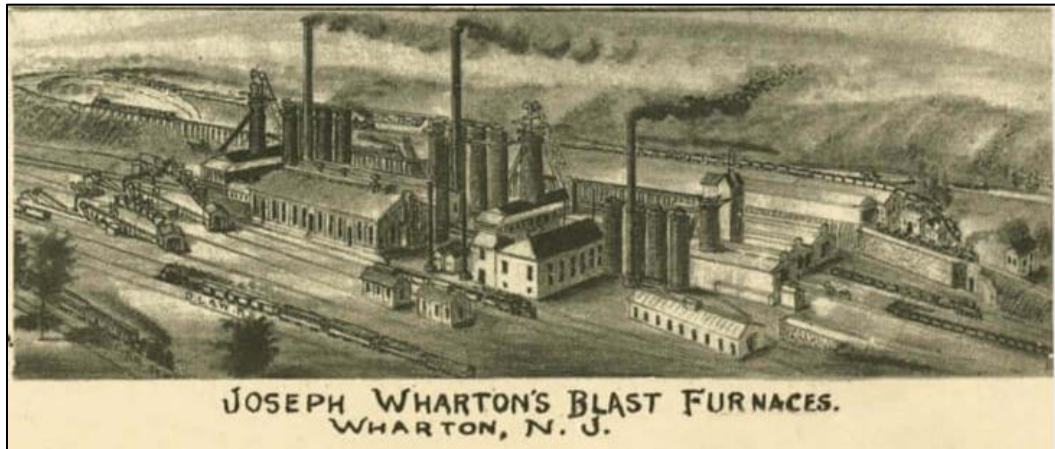
Figure 20. Photo of the trestle (far left and right) and the bridge (center) of the Wharton & Northern over the Rockaway River, No date.



Source: Morristown and Morris Township Public Library. Public domain.

The Wharton Blast Furnace was the largest steel forge at the time of acquisition (Figure 21), and the railroad connected the various mines in the region owned by Joseph Wharton to the blast furnace (Figure 22).

Figure 21. Wharton Iron Furnace, 1903.



Source: Library of Congress. Public domain.

Figure 22. View of Wharton Furnace from the Morris Canal, 1903.



Source: New Jersey State Archives. Public domain.

Timetables for the Wharton & Northern (Figure 23–Figure 25) show that the railroad had five of its own stations and passengers could also use the Wharton depot on the Lackawanna. The stations in order from Wharton were Mount Pleasant, Picatinny (Figure 26 and Figure 27), Factory, Lake Denmark, and Green Lake. The railroad had passenger and freight connections to the Lackawanna, but freight only with the Susquehanna and the Central. South of the Picatinny Station and the Picatinny Cannon Gate was a transfer point between the Wharton & Northern ROW and the classification yard owned by the Army (Figure 28).

Figure 23. Wharton & Northern timetable cover, c. 1905.

LAKE SIDE HOTEL Lake Denmark MORRIS COUNTY, NEW JERSEY 	GREEN POND HOTEL GREEN POND, N. J. M. C. VAN PELT, Manager  THIS House is beautifully located on the shore of the Lake 1,048 feet above tide water. ☛ The building is new, and will accommodate 75 guests and provide ample room for all. On the west and south side facing the lake, there is a veranda 12 feet wide, running the whole length of the building and the house is lighted with acetylene gas, heated by steam, and is equipped with hot and cold water baths, toilet and running water. CONVENIENCES. ☛ Mails are received twice each day and delivered at the hotel. ☛ Our stage meets all trains. Transportation 25 cents each way, trunks 50 cents. ☛ The season opens June 1st. No tuberculosis patients nor Hebrews entertained. ☛ From New York to Wharton by D., L. & W. Railroad. From Wharton to Green Lake station by Morris County Railroad and thence to hotel by stage.	TIME TABLE NO. 1 WHARTON & NORTHERN RAILROAD FORMERLY MORRIS COUNTY RAILROAD COMPANY In Effect July 15th, 1905 Joseph Wharton President Edward Kelly Gen'l Supt. WHARTON, N. J.
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Source: Central Railroad of New Jersey Historical Society. Public domain.

Figure 24. Wharton & Northern timetable, c. 1905.

SOUTH

NORTH

SOUTH | NORTH

Daily Except Sundays.

Stations	1	3	5
	a. m.	a. m.	p. m.
Green Pond Junction		10:45	3:45
Mutual Junction		11:05	
Green Lake	6:55	11:10 11:35	4:20
Oreland	6:30		
Posttown	6:40		
Oreland Junction	7:05	12:05	4:30
Lake Denmark	7:10	12:10	4:35
Navy Depot	7:15	12:15	4:40
Piccatinny	7:20	12:20	4:45
Mount Pleasant	7:25	12:25	4:50
Wharton Junction	7:30	12:30	4:55
Wharton	7:35	12:35	5:00
	a. m.	p. m.	p. m.

Trains do not stop where time is omitted on this table.

The company reserves the right to vary the running of trains as circumstances may require.

Daily Except Sundays.

Stations	2	4	6
	a. m.	p. m.	p. m.
Wharton	9:20	2:05	5:50
Wharton Junction	9:25	2:10	5:55
Mount Pleasant	9:30	2:15	6:00
Piccatinny	9:35	2:20	6:05
Navy Depot	9:40	2:25	6:10
Lake Denmark	9:45	2:30	6:15
Oreland Junction	9:50	2:35	6:20
Posttown			6:42
Oreland			6:50
Green Lake	10:00	2:45	6:30
Mutual Junction			
Green Pond Junction	10:20	3:05	
	a. m.	p. m.	p. m.

CONNECTIONS

No. 1 connects with D., L. & W. train No. 504 going east.

No. 2 waits for D., L. & W. train No. 403 going west and connects with N. Y. S. W. train No. 3 for points west of Charlottesville.

No. 3 connects with D., L. & W. train No. 360 for all points east.

No. 4 waits for D., L. & W. train No. 359 going west.

Sundays Only

7	9	Stations	8	10
a. m.	p. m.		a. m.	p. m.
9:35	6:25	Wharton	10:45	6:30
9:30	6:20	Wharton Jct	10:50	6:35
9:25	6:15	Mt. Pleas't	10:55	6:40
9:20	6:10	Piccatinny	11:00	6:45
9:15	6:05	Navy Depot	11:05	6:50
9:10	6:00	L. Denmark	11:10	6:55
9:05	5:55	Oreland Jct	11:15	7:00
8:40		Posttown		7:22
8:30		Oreland		7:30
8:55	5:45	Green Lake	11:25	7:10
		Mutual Jct		
		Green P. Jct		
a. m.	p. m.		a. m.	p. m.

READ UP

READ DOWN

CONNECTIONS

No. 5 connects with D., L. & W. train No. 405 west and No. 364 east.

No. 6 waits for D., L. & W. train No. 505 going west.

No. 7 connects with D., L. & W. train No. 356 for New York.

No. 8 waits for No. 711 from New York.

No. 9 connects with D., L. & W. trains No. 410 going east and No. 745 going west.

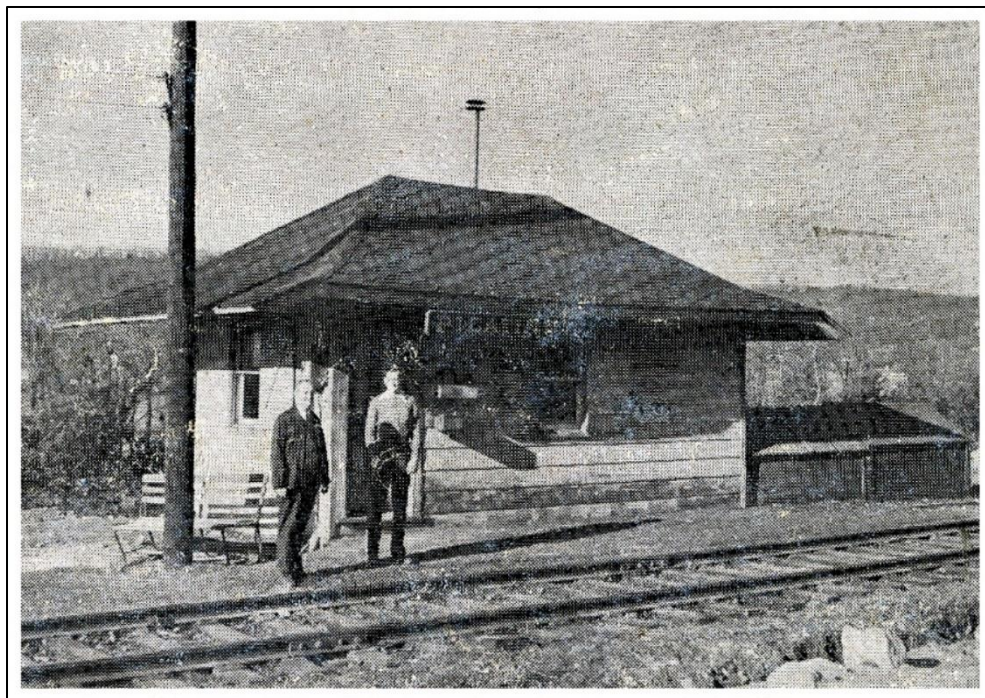
Source: Central Railroad of New Jersey Historical Society. Public domain.

Figure 25. Timetable for the Wharton & Northern, 1923.

WHARTON & NORTHERN RAILROAD.									
June, 1923.									
Stations	Mile	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
New York (D.L. & W.R.R.)	0	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.
West 23d St.	1	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.
Barclay St.	2	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.
Christopher St.	3	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.
Paterson	4	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.
Newark	5	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.
Boonton	6	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.
Morristown	7	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.
Dover	8	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.
Wharton	9	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.
Wharton Junction	10	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.
Mount Pleasant	11	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.
Piccatinny	12	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.
Factory	13	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.
Lake Denmark	14	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.
Oreland Junction	15	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.
Green Lake	16	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.
Green Pond Junction	17	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.
ORELAND BRANCH.									
Service temporarily discontinued.									
Stations	Mile	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
Green Pond Junction	0	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.
Green Lake	1	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.
Oreland Junction	2	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.
Lake Denmark	3	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.
Factory	4	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.
Piccatinny	5	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.
Mount Pleasant	6	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.
Wharton Junction	7	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.
Wharton	8	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.
Dover	9	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.
Morristown	10	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.
Boonton	11	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.
Newark	12	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.
Paterson	13	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.
Christopher St.	14	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.
Barclay St.	15	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.
West 23d St.	16	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.
New York	17	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.
LAKE JUNCTION BRANCH.									
Service temporarily discontinued.									
Stations	Mile	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
Green Pond Junction	0	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.	10:00 A.M.	10:00 P.M.
Green Lake	1	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.	10:05 A.M.	10:05 P.M.
Oreland Junction	2	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.	10:10 A.M.	10:10 P.M.
Lake Denmark	3	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.	10:15 A.M.	10:15 P.M.
Factory	4	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.	10:20 A.M.	10:20 P.M.
Piccatinny	5	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.	10:25 A.M.	10:25 P.M.
Mount Pleasant	6	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.	10:30 A.M.	10:30 P.M.
Wharton Junction	7	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.	10:35 A.M.	10:35 P.M.
Wharton	8	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.	10:40 A.M.	10:40 P.M.
Dover	9	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.	10:45 A.M.	10:45 P.M.
Morristown	10	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.	10:50 A.M.	10:50 P.M.
Boonton	11	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.	10:55 A.M.	10:55 P.M.
Newark	12	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.	11:00 A.M.	11:00 P.M.
Paterson	13	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.	11:05 A.M.	11:05 P.M.
Christopher St.	14	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.	11:10 A.M.	11:10 P.M.
Barclay St.	15	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.	11:15 A.M.	11:15 P.M.
West 23d St.	16	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.	11:20 A.M.	11:20 P.M.
New York	17	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.	11:25 A.M.	11:25 P.M.
EXPLANATION OF SIGNS.									
Trains marked t daily, except Sunday.									
a Daily, except Saturday and Sunday. □ Will not run holidays.									
"Daylight Saving" time.									
CONNECTIONS.— ¹ With Delaware, Lackawanna & Western R.R., freight and passenger; with Central R.R. of New Jersey, freight only.									
² With New York, Susquehanna & Western R.R., freight only. ³ With Central R.R. of New Jersey, freight only.									

Source: Central Railroad of New Jersey Historical Society. Public domain.

Figure 26. Picatinny Station on the Wharton & Northern, no date.



Source: Picatinny Arsenal Historian Archives. Public domain.

Figure 27. Wharton & Northern Depot at Picatinny Arsenal, no date.



Source: John Dunado with the Historical Society of Rockaway Township. Public domain.

Figure 28. Looking southwest from Cannon Gate with the Wharton & Northern ROW on the left and the Army-owned classification yard on the right.



Source: Picatinny Arsenal Historian Archives. Public domain.

The Morris Canal ceased operations in 1928, and most of the mines in the region closed during the 1920s. Wharton Iron Works closed permanently in 1932.³¹

2.8 Central Railroad of New Jersey

In 1930, the Interstate Commerce Commission (ICC) authorized the Central Railroad of New Jersey to acquire the Wharton & Northern, the Mount Hope Mineral Railroad, and the Hibernia Mine Railroad. As shown in Figure 29, the trackage went from Green Pond Junction to Hopatcong Junction (Lake Junction).

³¹ Morris County Historic Sites Survey, 5.

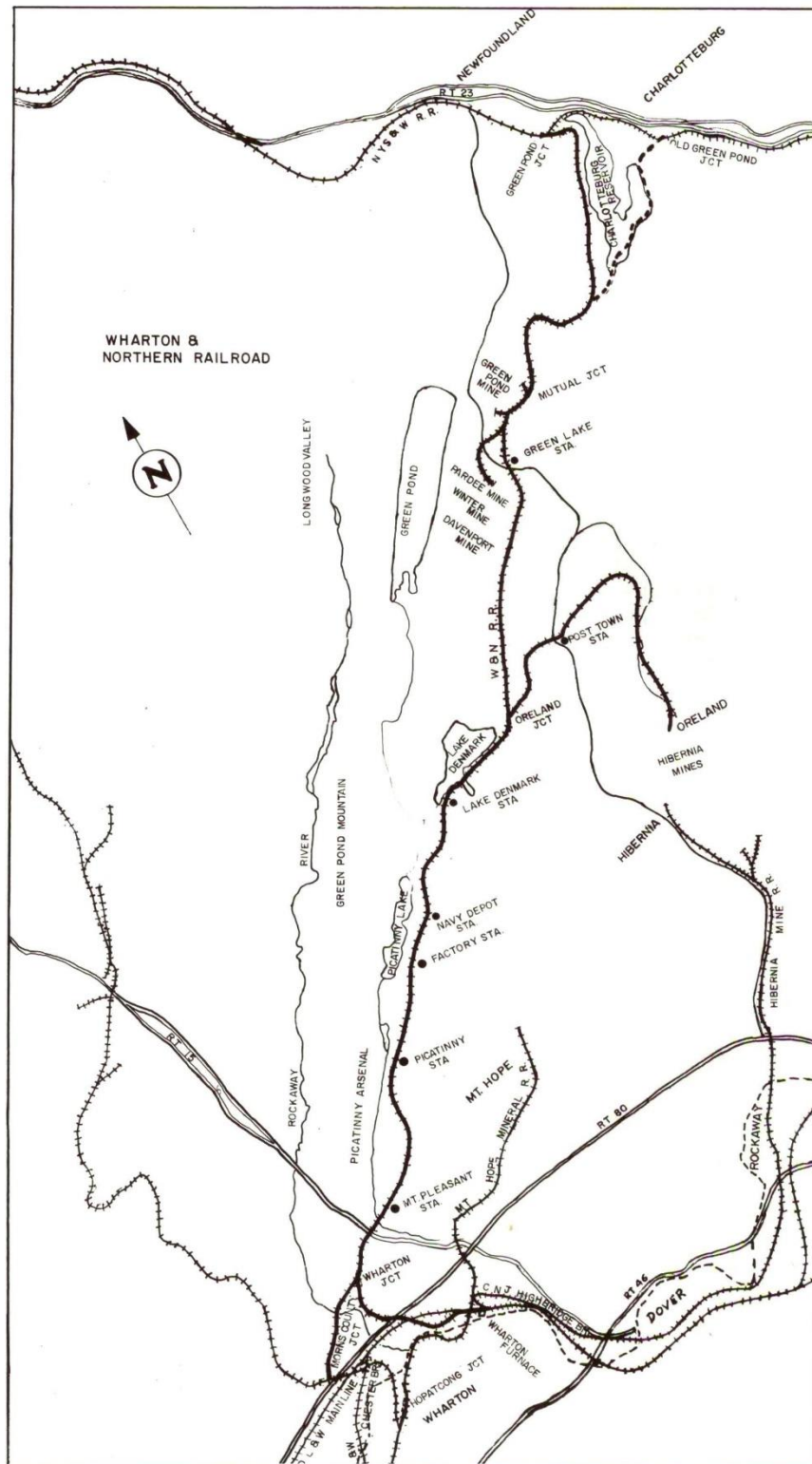
Figure 29. Portion of *The Central Railroad Company of New Jersey* map, 1941.



Source: Rutgers University. Public domain.

The ROW for the railroad was moved from the east side of Charlotteburg Pond to the west side of the new Charlotteburg Reservoir in 1960 (Figure 30).

Figure 30. Map of the full extent of the Wharton & Northern, no date.



Source: Larry Lowenthal, *Iron Mine Railroads in Northern New Jersey* (Morristown, NJ: Tri-State Railway Historical Society, 2016) 112. Image reproduced with permission from the Tri-State Railway Historical Society.

On March 22, 1971, the Central Railroad asked the ICC for authorization to abandon the High Bridge Branch from High Bridge to Wharton, a distance of 25.99 miles; the Dover and Rockaway Railroad, a distance of 5.11 miles; the Wharton & Northern to Green Pond Junction, a distance of 14.64 miles; and the Mount Hope Mineral Railroad, a distance of 3.60 miles.³² In 1970, the Central Railroad stated that the Wharton & Northern carried 341,484 tons of freight, of which 2,826 tons were ordnance for Picatinny Arsenal.³³ On May 26, 1972, the Central Railroad withdrew their request for abandonment of the High Bridge Branch, the Dover and Rockaway Railroad, and the portion of the Wharton & Northern south of the middle portion of Picatinny Arsenal.³⁴

2.9 Conrail

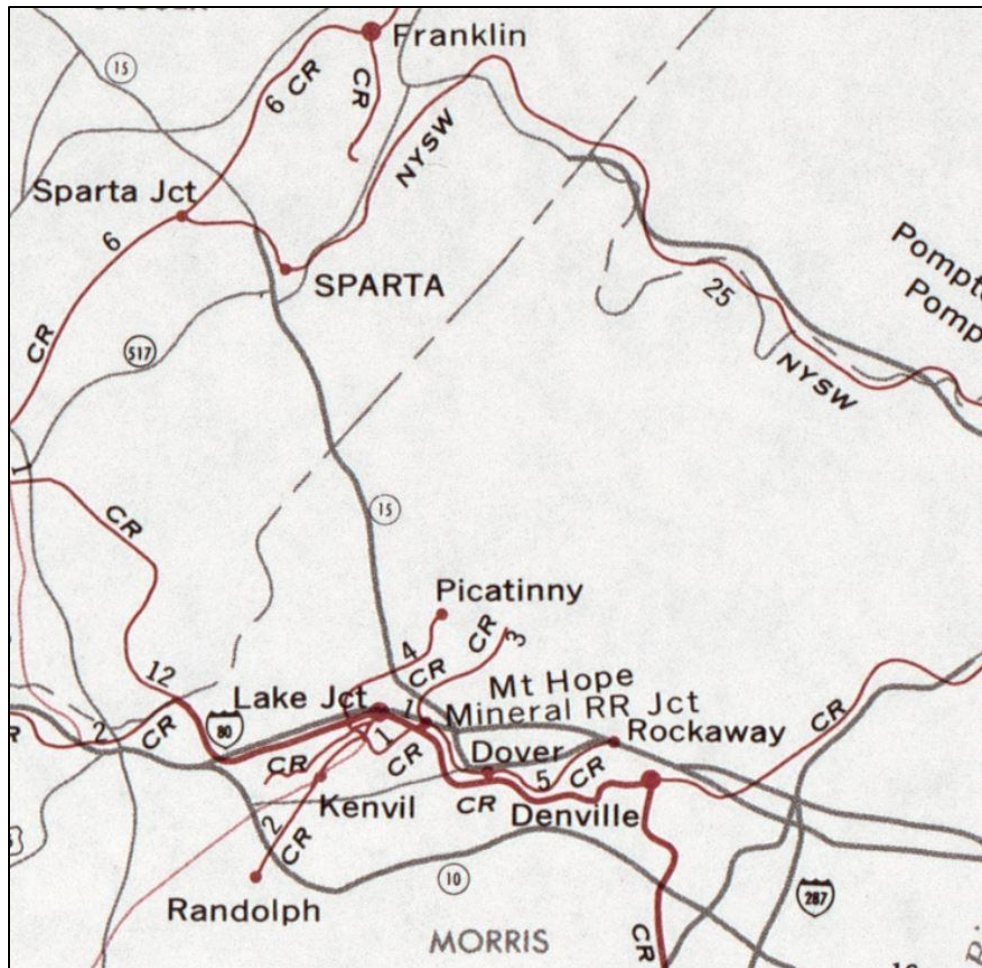
On March 22, 1967, the Central Railroad of New Jersey was bankrupt. It was acquired by the U.S. Government to become part of the Consolidated Railroad (Conrail) in April 1976.³⁵ By 1976, as shown in Figure 31, the portion of the Wharton & Northern north of Picatinny was abandoned and the remaining portion was owned by Conrail.

³² ICC Finance Docket 26659 on file at the Morristown and Morris Township Public Library, 2.

³³ Ibid., 2.

³⁴ Ibid., 6.

³⁵ "Brief History of Consolidated Rail Corporation," About Conrail, Consolidated Rail Corporation, accessed June 2019, <https://www.conrail.com/history>.

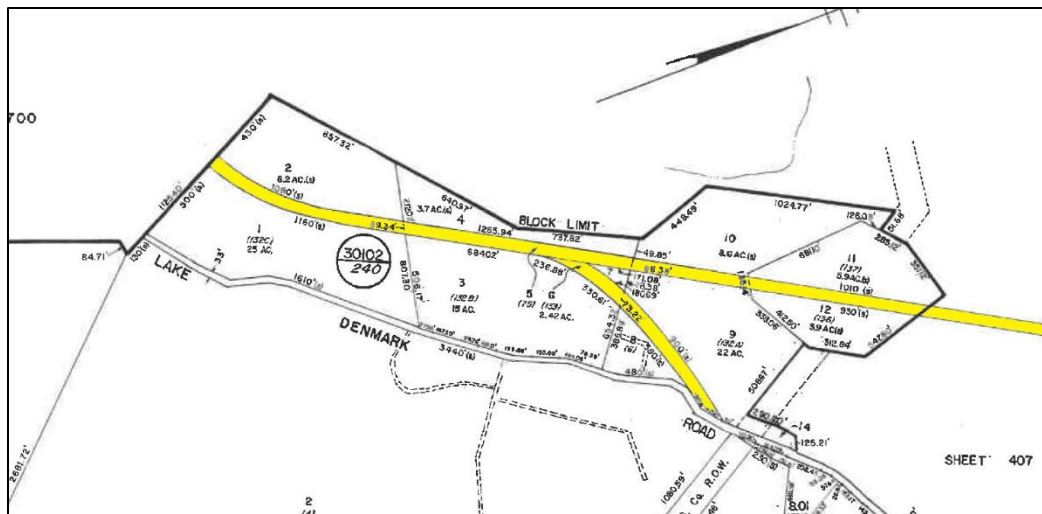
Figure 31. Portion of *Transportation of New Jersey Map, 1976*.

Source: Library of Congress. Public domain.

2.10 Alterations and later history of the former Wharton & Northern ROW

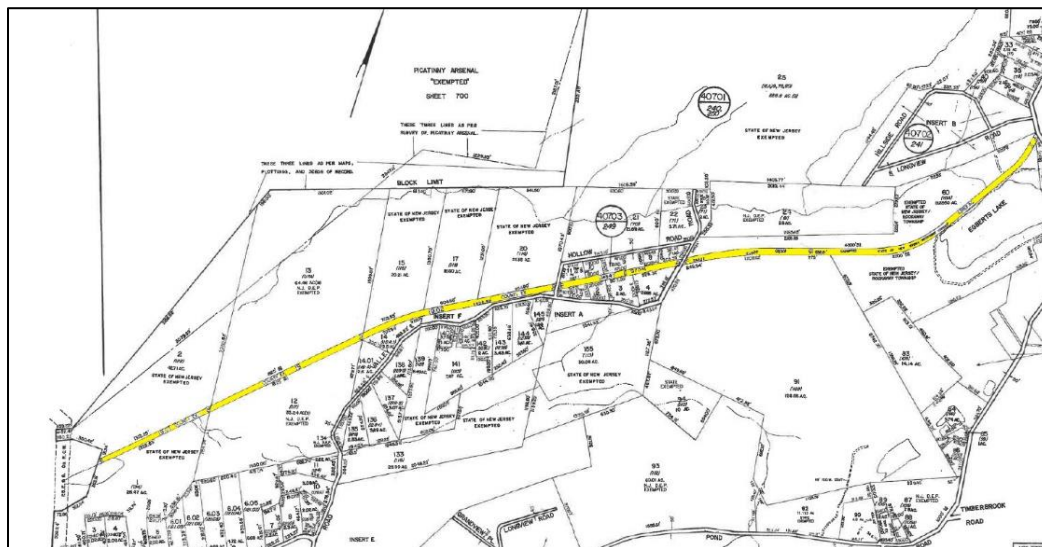
The ownership record for portions of the ROW after 1976 is unclear. The ROW north of the Picatinny Arsenal boundary at Lake Denmark is still shown on Morris County tax property maps (Figure 32) as owned by Morris County and not subdivided (Figure 33). The ROW is called out separately through Picatinny Arsenal on Morris County tax property maps (Figure 34), but the ROW is not clearly marked as owned by the Federal Government.

Figure 32. Portion of Morris County tax property map showing ROW north of Picatinny Arsenal as its own entity.



Source: Assessment Map of Rockaway, Morris County, New Jersey. 1981. Morris County Courthouse. Public domain.

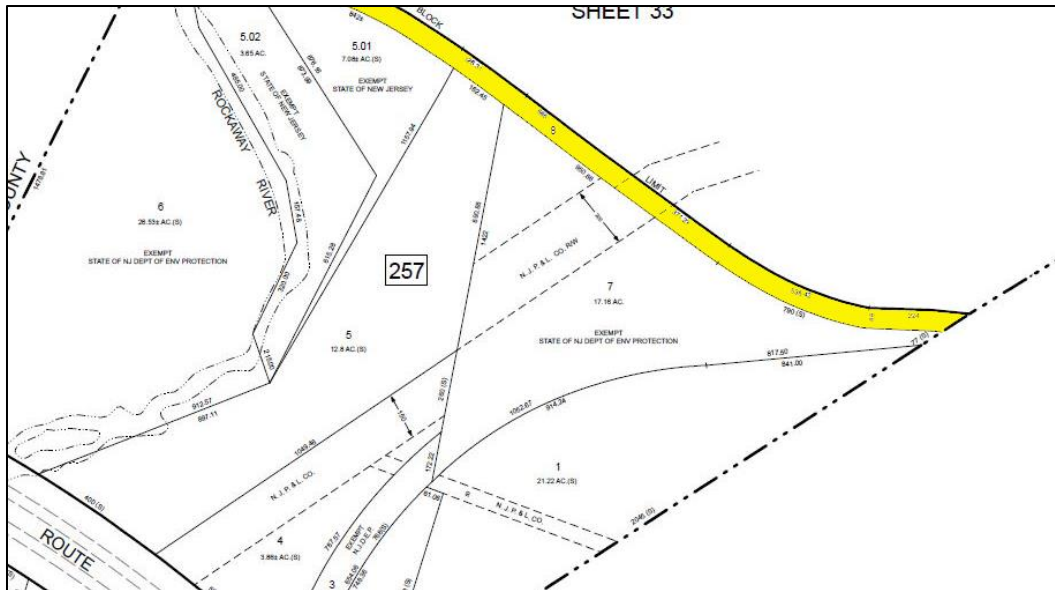
Figure 33. Portion of Morris County tax property map showing ROW north of Picatinny Arsenal by Lake Egbert as owned by Morris County.



Source: Assessment Map Township of Rockaway, Morris County, New Jersey. 1982. Morris County Courthouse. Public domain.

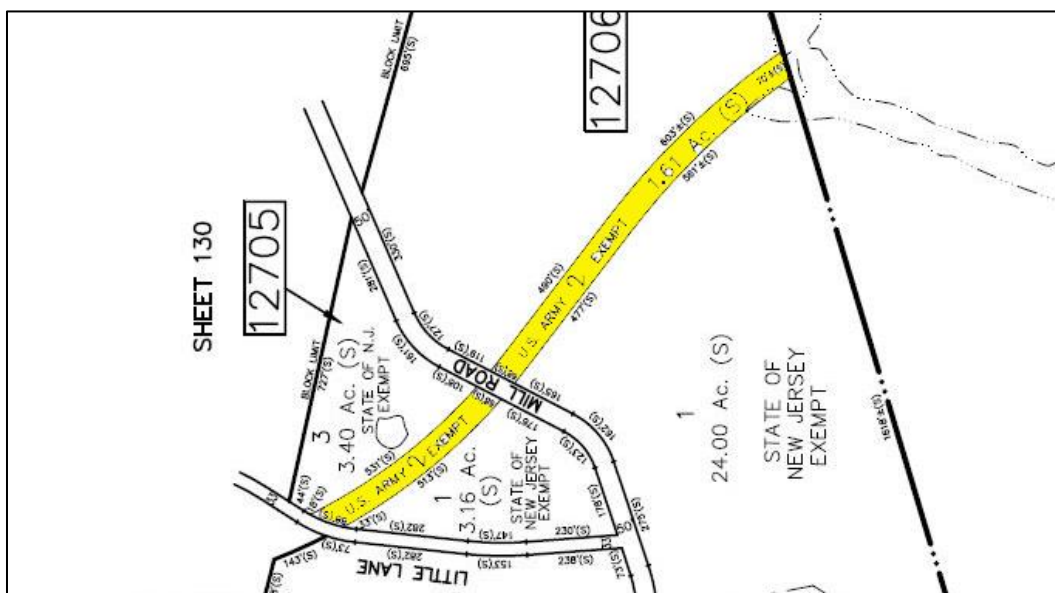
The portion of the ROW from New Jersey Route 15 towards Lake Junction is shown on the Morris County tax property maps as owned by the Federal Government (Figure 36 through Figure 38).

Figure 36. Portion of Morris County tax property map showing the ROW over the Rockaway River.



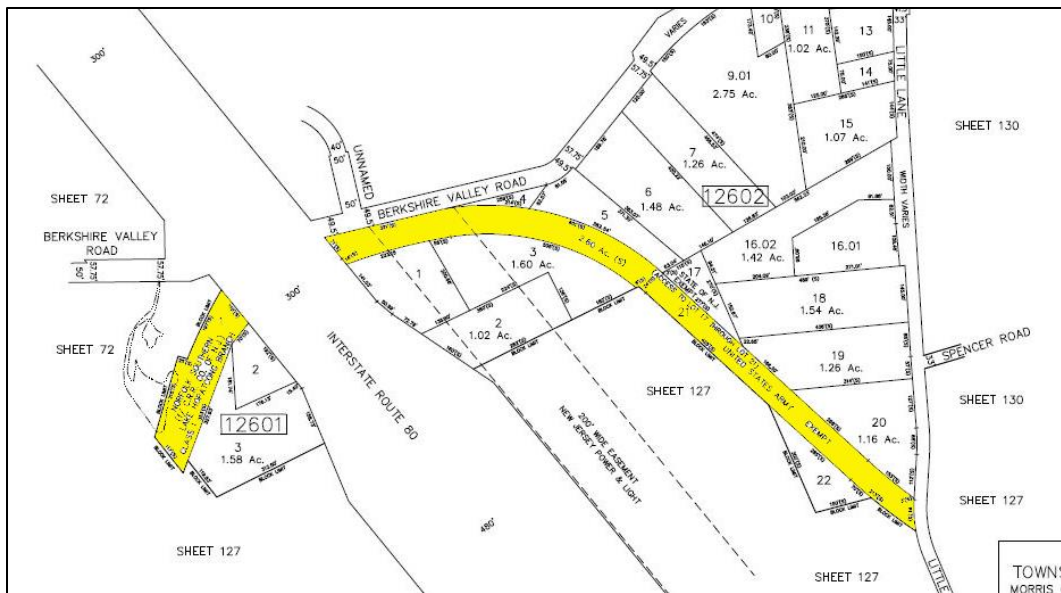
Source: Tax Assessment Map, Jefferson Township, Morris County, New Jersey. 2016. Morris County Courthouse. Public domain.

Figure 37. Portion of Morris County tax property map showing ROW from the Rockaway River to Little Lane.



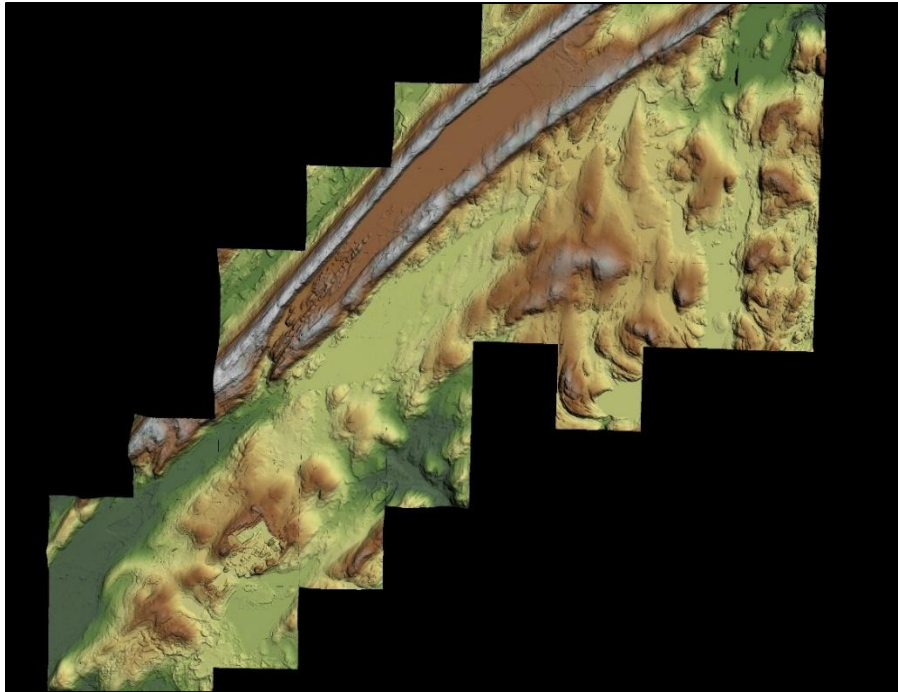
Source: Tax Map, Township of Roxbury, Morris County, New Jersey. 1998. Morris County Courthouse. Public domain.

Figure 38. Portion of Morris County tax property map showing Federal ownership of the ROW south of I-80 and north of I-80 to Little Lane.



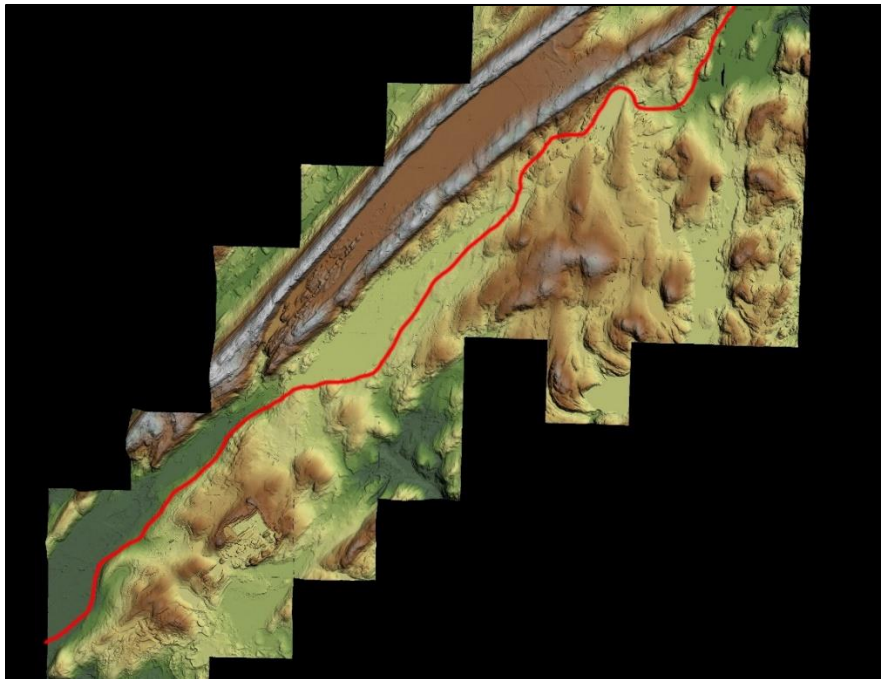
Source: Tax Map, Township of Roxbury, Morris County, New Jersey. 1998. Morris County Courthouse. Public domain.

Figure 40. Lidar image of the area from Picatinny to Newfoundland.



Source: Lidar data available from U.S. Geological Survey, National Geospatial Program (modified by ERDC-CERL).
Public domain.

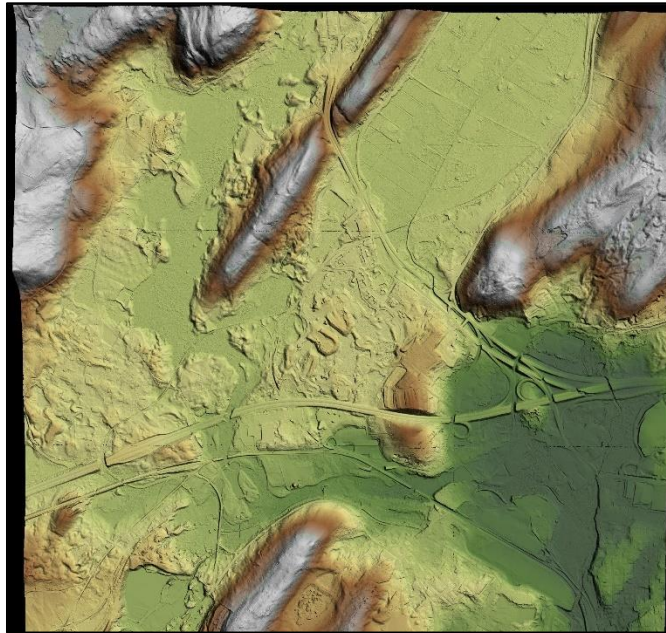
Figure 41. Lidar image with the Wharton & Northern ROW *marked in red*.



Source: Lidar data available from U.S. Geological Survey, National Geospatial Program (modified by ERDC-CERL).
Public domain.

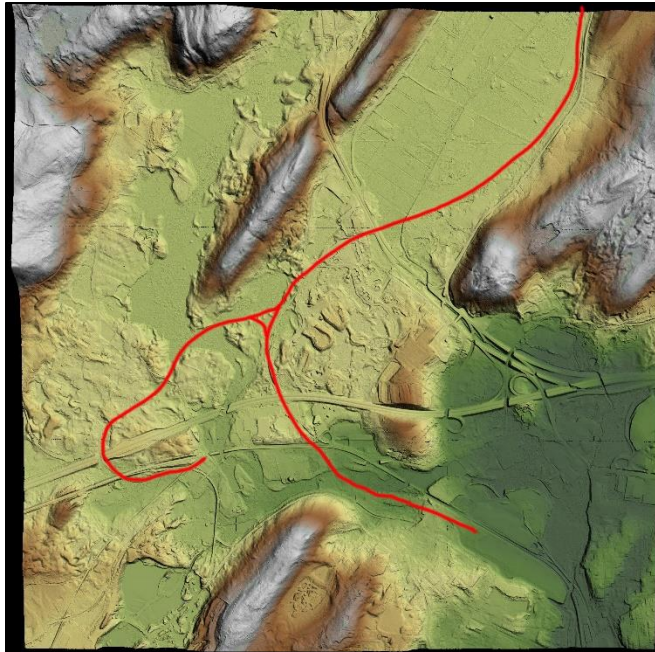
The full extent of the Wharton & Northern from Picatinny to its connection with the Delaware, Lackawanna & Western Railroad (Lackawanna) and the former location of the Wharton Iron Works is shown in Figure 42 and Figure 43.

Figure 42. Lidar detail image of the area from Picatinny to Wharton.



Source: Lidar data available from U.S. Geological Survey, National Geospatial Program (modified by ERDC-CERL).
Public domain.

Figure 43. Lidar image with the Wharton & Northern Railroad ROW marked in red.



Source: Lidar data available from U.S. Geological Survey, National Geospatial Program (modified by ERDC-CERL).
Public domain.

3.1 Lake Junction to Route 15 gate

The original route of the Morris County Railroad and its successor, the Wharton & Northern, begins at Lake Junction with the Lackawanna and loops to the north through a viaduct under the Lackawanna. At this point, the railroad branches to form the Hopatcong Branch, a secondary line; however, the construction of I-80 through the county severed the Hopatcong's access to the Lackawanna. (Figure 44). The Wharton & Northern continues on the east side Berkshire Valley Road under I-80 and then curves to the northeast towards Picatinny (Figure 45–Figure 47).

Figure 44. Looking northwest along the Wharton & Northern ROW (marked in red) east of Berkshire Valley Road as it goes under the Lackawanna and I-80.



Map data: Google, June 2019.

Figure 45. Map showing the route of the Wharton & Northern ROW into Wharton.



Source: OpenRailwayMap. Map data from [OpenStreetMap](#) contributors, 2019. Open Database License.

Figure 46. Looking north along Berkshire Valley Road at I-80 showing the separate area for the Wharton & Northern ROW on the east.



Source: Picatinny Arsenal. Public domain.

Figure 47. Aerial image showing the Wharton & Northern ROW (marked in red) east of Berkshire Valley Road between I-80 and the Lackawanna.



Map data: Google, June 2019.

The Wharton & Northern ROW splits off from Berkshire Valley Road north of I-80 and heads to the northwest towards Little Lane. The rails were removed from Little Lane, but the rails and ties are extant to the southwest and northeast (Figure 48). The ROW with extant rails and ties continues to the northeast until Mill Road, where the rails have been removed, but the rails begin again after Mill Road (Figure 49). The ROW turns more easterly as it approaches the Rockaway River bridge. The bridge is missing many ties, and the abutments are in disrepair (Figure 50 and Figure 51).

Figure 48. Looking southwest from Little Lane.



Source: ERDC-CERL, 2019.

Figure 49. Looking northeast from Mill Road.



Source: ERDC-CERL, 2019.

Figure 50. Looking east across the Rockaway River bridge.



Source: ERDC-CERL, 2019.

Figure 51. Looking northeast at detail of the west abutment on the Rockaway River bridge.



Source: ERDC-CERL, 2019.

East of the Rockaway River bridge, the Wharton & Northern continues on its easterly ROW with extant rails and ties (Figure 52). It is joined from the south by the Wharton Branch of the Wharton & Northern that leads from Wharton and the Wharton Foundry. This branch does not have rails or ties (see Section 3.10 and Figure 36).

The ROW continues easterly towards a new development (Pondview Estates). The rails disappear as the ROW crosses the southbound side of Mirror Lake Road and then runs in the median of Mirror Lake Road (Figure 53 and Figure 54). The rails and the ROW continue in a northerly direction to the north side of the new development and then disappear as the ROW reaches West Union Turnpike (Figure 55). The rails might be buried south of a service station prior to the ROW crossing NJ Route 15, but the rails do not cross NJ Route 15 (Figure 56). There is a chain-link gate where the ROW crosses onto the property of Picatinny Arsenal (Figure 57).

Figure 52. Looking west on the Wharton & Northern ROW.



Source: ERDC-CERL, 2019.

Figure 53. Looking northeast where the Wharton & Northern crosses into the median of Mirror Lake Road in the Pondview Estates development.



Source: ERDC-CERL, 2019.

Figure 54. Looking southwest where the Wharton & Northern runs in the median of an unnamed street in a new development.



Source: ERDC-CERL, 2019.

Figure 55. Looking northeast as the Wharton & Northern heads towards Route 15.



Source: ERDC-CERL, 2019.

Figure 56. Looking north to the ROW of the Wharton & Northern south of a service station and where the ROW crosses Route 15.



Source: ERDC-CERL, 2019.

Figure 57. Looking north at the chain-link gate where the Wharton & Northern ROW is on Picatinny Arsenal property.

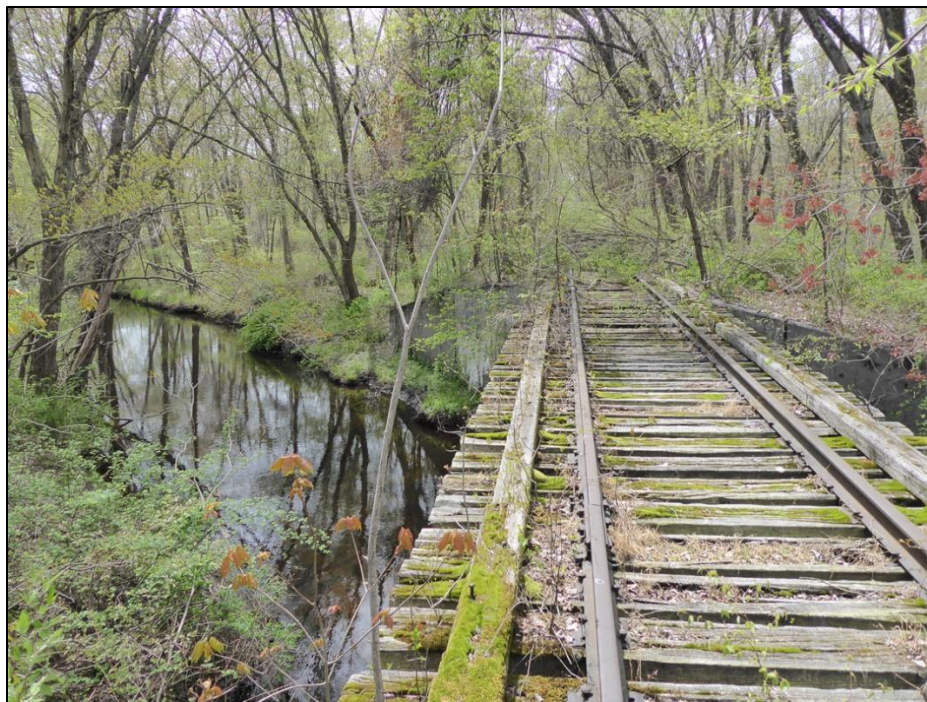


Source: ERDC-CERL, 2019.

3.2 Route 15 entering Picatinny Arsenal to Cannon Gate

The ROW and rails cross onto Picatinny Arsenal at a chain-link gate (Figure 57) and continue northerly to cross Green Pond Brook (Figure 58 and Figure 59) and then Brook Road (Figure 60). The ROW continues to the northwest of a recreational area and crosses Shinkle Road (Figure 61). The ROW parallels Moody Road to the west and Parker Road to the east (Figure 62). This area of Picatinny Arsenal is swampy, and a series of drainage ditches help to channel water into Green Pond Brook (Figure 63). Between Shinkle Road and First Street, the ROW continues northerly. There are a series of extant switches that allowed branching onto a former Picatinny Arsenal train yard, which was northwest of the ROW (Figure 64 and Figure 65). The ROW crosses onto the original portion of Picatinny Arsenal at the installation's Cannon Gate and abutting stonewall where the rails end (Figure 66). There is a stone boundary marker to the south of Cannon Gate, up the hill that aligns about 100 feet from the ROW (Figure 67).

Figure 58. Looking west at a bridge over Green Pond Brook.



Source: ERDC-CERL, 2019.

Figure 59. Bridge over Green Pond Creek.



Source: ERDC-CERL, 2019.

Figure 60. Looking east at ROW past Brook Road.



Source: ERDC-CERL, 2019.

Figure 61. The ROW as it approaches Shinkle Road.



Source: ERDC-CERL, 2019.

Figure 62. Looking north along the ROW east of Moody Road.



Source: ERDC-CERL, 2019.

Figure 63. Looking at a concrete pipe culvert under the tracks.



Source: ERDC-CERL, 2019.

Figure 64. Looking south along the ROW east of Moody Road.



Source: ERDC-CERL, 2019.

Figure 65. Detail of a switch.



Source: ERDC-CERL, 2019.

Figure 66. Looking south at the stone wall abutting the Picatinny Arsenal Cannon Gate for the ROW of the Wharton & Northern.



Source: ERDC-CERL, 2019.

Figure 67. Stone marker located to the south of Cannon Gate.



Source: Picatinny Arsenal. Public domain.

3.3 Central Picatinny Arsenal portion

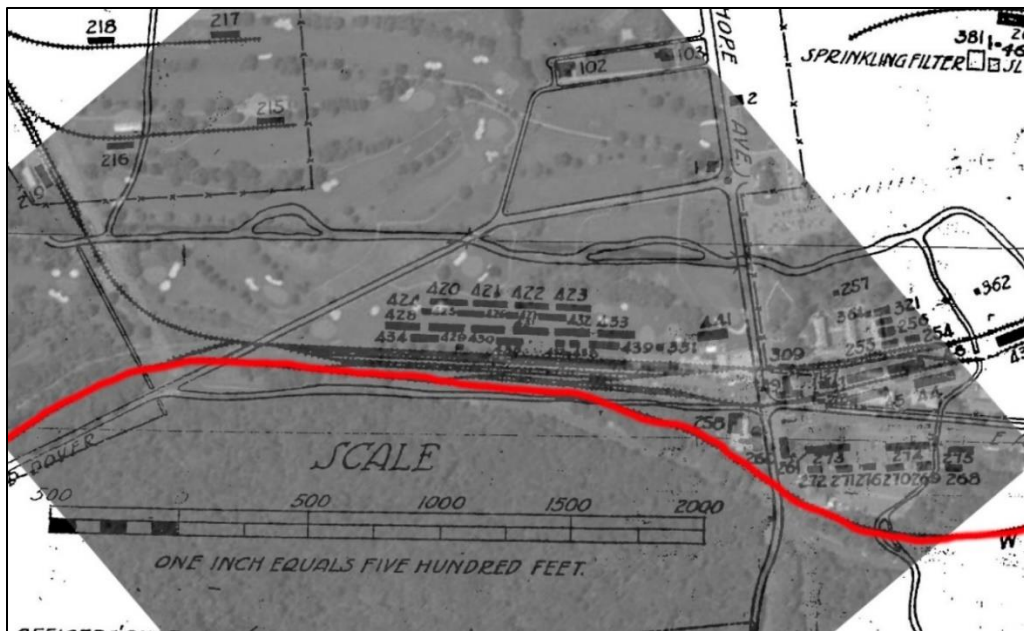
The ROW enters the central portion of Picatinny Arsenal at the stone wall abutting the Picatinny Cannon Gate and crosses First Street and then Parker Road (Figure 68). It starts to parallel Buffington Road (Figure 69). There are no rails, and the ROW is not discernible in this area, but the transfer yard does have extant rails that have been transformed into paths for the golf course (Figure 70 and Figure 71). The ROW continues in a northerly direction and crosses Buffington Road and starts paralleling Bott Road; the rails are not extant in this section. The ROW crosses Farley Road, and the rails reappear.

Figure 68. Looking north along ROW towards First Street.



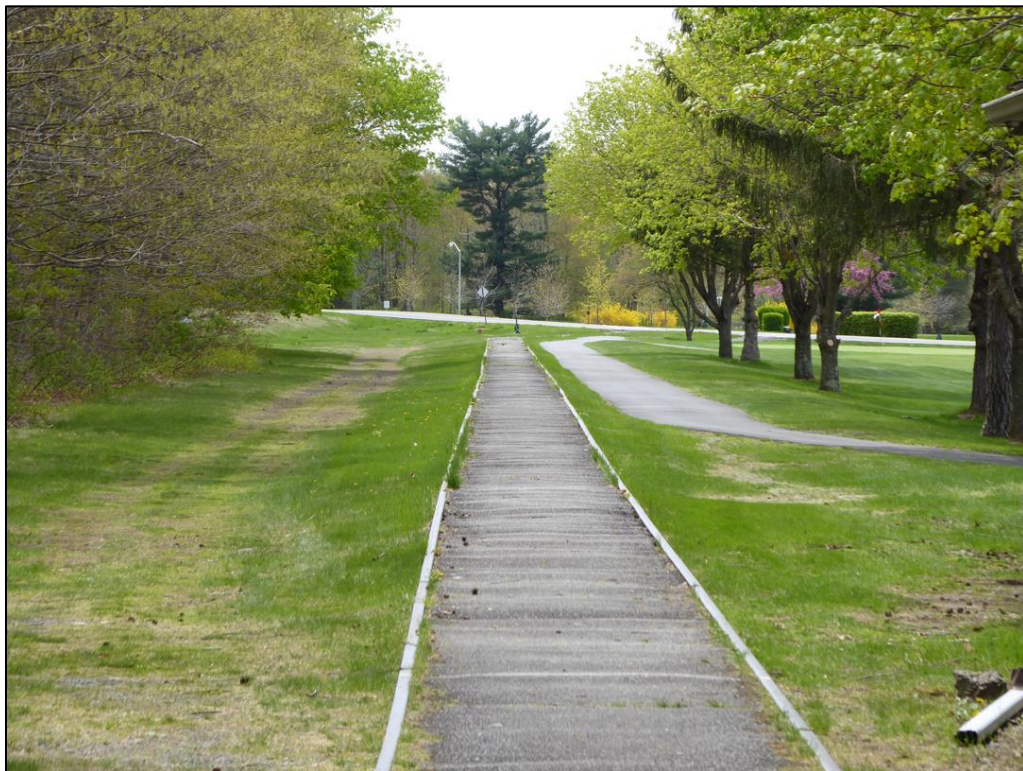
Source: ERDC-CERL, 2019.

Figure 69. Overlay of current aerial image onto a 1919 map showing location of the Wharton & Northern ROW in red with the Picatinny Arsenal switching yard to the northwest.



Source: Map of Picatinny Arsenal. 1922. Picatinny Arsenal DPW (modified by ERDC-CERL).

Figure 70. Looking south along a former Picatinny railroad yard line towards First Street. The Wharton & Northern ROW is not in the photograph to the left.



Source: ERDC-CERL, 2019.

Figure 71. Looking south along a former Picatinny railroad yard line with a golf course support building on the *right*; the Wharton & Northern ROW is not in the photograph to the *left*.



Source: ERDC-CERL, 2019.

The ROW continues to parallel Bott Road until it crosses Main Road. The ROW starts to parallel Belt Road (Figure 72 and Figure 73). There are two stone culverts in this section (Figure 74 and Figure 75) before the ROW heads towards the ruins of the Factory Railroad Station (Figure 76–Figure 80). The site of the Factory Railroad Station is a marked archeological area with New Jersey SHPO site number: 28-Mr-345.

Figure 72. Looking south along the ROW south of the Factory Railroad Station.



Source: ERDC-CERL, 2019.

Figure 73. Looking northeast along the ROW near the former 1010 Area and just downhill from Building 3002.



Source: Picatinny Arsenal. Public domain.

Figure 74. Looking south at a stone culvert adjacent to Bott Road.



Source: Picatinny Arsenal. Public domain.

Figure 75. Looking west, just off the ROW, at a stone culvert in a section of woods in the 900 Area of the Arsenal.



Source: ERDC-CERL, 2019.

Figure 76. Looking south along the ROW from the Factory Railroad Station.



Source: ERDC-CERL, 2019.

Figure 77. Looking up at the steps to the Factory Railroad Station (Site number: 28-Mr-345).



Source: ERDC-CERL, 2019.

Figure 78. View down into the basement of the Factory Railroad Station (Site number: 28-Mr-345).



Source: ERDC-CERL, 2019.

Figure 79. Piers to support the platform at the Factory Railroad Station (Site number: 28-Mr-345).



Source: ERDC-CERL, 2019.

3.4 Lake Denmark Naval Ammunition Depot portion

The ROW continues northerly through Picatinny Arsenal and adjacent to the former boundary with the Lake Denmark Naval Ammunition Depot paralleling Belt Road (Figure 80–Figure 83). This portion of the ROW has

the most extensive infrastructure, with rubble stone berms (Figure 83) that are part of New Jersey SHPO Site number: 28-Mr-376. There are also remnants from the Navy Depot Station, New Jersey SHPO Site number: 28-Mr-376. North of the Factory Railroad Station, there is a connection into the Lake Denmark Naval Ammunition Depot (Figure 84 and Figure 85).

Figure 80. View north along the ROW from the Factory Railroad Station.



Source: ERDC-CERL, 2019.

Figure 81. Looking south along the ROW north of the Factory Railroad Station.



Source: ERDC-CERL, 2019.

Figure 82. Decaying railroad tie along the ROW by the former Lake Denmark boundary.



Source: ERDC-CERL, 2019.

Figure 83. Stone retaining wall along the ROW by the former Navy Depot boundary (New Jersey SHPO Site number: 28-Mr-376).



Source: ERDC-CERL, 2019.

Figure 84. Concrete pylon and gate between Picatinny Arsenal and the former Navy Depot.



Source: ERDC-CERL, 2019.

Figure 85. ROW of the Lake Denmark spur.



Source: ERDC-CERL, 2019.

3.5 Lake Denmark portion

From the Lake Denmark spur, the ROW is located between Twenty-Fifth Avenue and Belt Road but is not directly adjacent to either one of them (Figure 86). The ruins of the Merritt Hotel (Lake Denmark Hotel) are near the outlet for Lake Denmark, near where Lake Denmark Road changes from a northeast–southwest orientation to a northwest–southeast orientation (near Partnership Ballfield) (Figure 87). This is an archeological site (Site number: 28-Mr-334). The ROW on an embankment parallels the shore of Lake Denmark (Figure 88–Figure 91). The west side of the Sterigenics property is the location of the wye junction between the Wharton & Northern mainline and its branch to Oreland (Figure 92). The ROW continues in a northeasterly manner paralleling a marsh on the northwest and Valley Road on the southeast.

Figure 86. Looking south along the ROW from Lake Denmark.



Source: ERDC-CERL, 2019.

Figure 87. Foundations of the Merritt Hotel barn.



Source: ERDC-CERL, 2019.

Figure 88. Looking north along the ROW at Lake Denmark.



Source: ERDC-CERL, 2019.

Figure 89. Picatinny Arsenal boundary chain-link gate across the ROW.



Source: ERDC-CERL, 2019.

Figure 90. Looking north along the ROW.



Source: ERDC-CERL, 2019.

Figure 91. Continuing looking north along the ROW.



Source: ERDC-CERL, 2019.

Figure 92. Location of the wye with the main ROW on the *left* and the Oreland ROW to the *right*.



Source: ERDC-CERL, 2019.

3.6 Egbert Lake portion

The ROW continues northeasterly, flanking the west side of Egbert Lake (Figure 93–Figure 95). It crosses Green Pond Road (former location of the Hump Back Bridge (Figure 96)).

Figure 93. Looking north of Green Pond Road at the ROW.



Source: ERDC-CERL, 2019.

Figure 94. Looking south of Green Pond Road at the ROW.



Source: ERDC-CERL, 2019.

Figure 95. Looking south along the ROW west of Egbert Lake.



Source: ERDC-CERL, 2019.

Figure 96. Looking north to culvert under Green Pond Road (location of original Hump Back Bridge on ROW).



Source: ERDC-CERL, 2019.

3.7 From Egbert Lake to Charlotteburg Reservoir portion

This portion was inaccessible to the researchers due to lack of property access and uncertainty about the exact route of the ROW. Generally, the former ROW goes through the woods, crosses Jacob's Road, runs along the west shore of Timberbrook Lake, borders the north side of Farney State Park, and then runs along the west side of the Charlotteburg Reservoir.

3.8 Charlotteburg Junction portion

The former ROW parallels the Pequannock River as it enters the Charlotteburg Reservoir and then makes its junction with the Susquehanna Railroad south of New Jersey Route 23 and east of Deerhaven Lake (Figure 97).

Figure 97. Looking east along the Susquehanna Railroad at the former Charlotteburg Junction to the Wharton & Northern.



Source: ERDC-CERL, 2019.

3.9 Oreland Branch portion

The former Oreland Branch of the Wharton & Northern has a junction with the Wharton & Northern east of Lake Denmark (Figure 92). The former ROW heads northwest where it crosses Lake Denmark Road (Figure 98) and then makes a hairpin turn to the south-southeast until its end at Upper Hibernia Road (Figure 99). There are few tangible elements left of this former ROW, except for a few cuts through the earth (Figure 99).

Figure 98. Looking south at the point where the Oreland Branch ROW crosses Lake Denmark Road.



Source: ERDC-CERL, 2019.

Figure 99. Looking north at Oreland Branch ROW as it crosses Upper Hibernia Road.



Source: ERDC-CERL, 2019.

3.10 Wharton Foundry branch (in Wharton) portion

The former ROW for the Wharton Foundry branch of the Wharton & Northern splits off from the main line west of the present-day location of the Pondview Estates development (Figure 100). It curves south and at one time entered a long steel viaduct (no longer extant) over the tracks of the Lackawanna (Figure 101) that continues on to cross the Rockaway River over a bridge (Figure 102–Figure 104). The ROW curves east and follows the south bank of the Rockaway River. It then curves south paralleling the Lackawanna and enters the former property of the Wharton Foundry. The only remnants of this ROW are the supports for the Rockaway River bridge.

Figure 100. Looking south along the Wharton branch of the Wharton & Northern.



Source: ERDC-CERL, 2019.

Figure 101. Looking west along West Dewey Avenue at the former location of Wharton branch viaduct.



Source: Picatinny Arsenal. Public domain.

Figure 102. Looking east at the stone support for the former Wharton branch of the Wharton & Northern bridge over the Rockaway River.



Source: ERDC-CERL, 2019.

Figure 103. Looking south at the two stone supports for the former Wharton branch of the Wharton & Northern bridge over the Rockaway River.



Source: ERDC-CERL, 2019.

Figure 104. Looking east at the former location of the Wharton branch Wharton & Northern bridge over the Rockaway River.



Source: ERDC-CERL, 2019.

Historically, there has been a network of transportation routes in the area of Picatinny Arsenal; a canal and mining railroads (transporting iron ore to nearby foundries), passenger trains (transporting vacationers to lake-side resorts or bringing workers to Picatinny Arsenal) as well as two main railroads bringing passengers and goods from New Jersey/New York City to the West. Today only the two main lines, the Montclair Boonton Line of the NJ Transit to the south of Picatinny and the New York, Susquehanna and Western Railroad to the north remain in use (Appendix A).

4 Evaluation

4.1 Structures

There are very few structures that remain from any period of the Wharton & Northern. They are the following:

- Rockaway River bridge (Figure 50);
- Green Pond Brook bridge (Figure 58 and Figure 59); and
- Wharton branch Rockaway River bridge (Figure 102–Figure 104).

4.2 Archaeological sites

There are three archaeological sites that are associated with the Wharton & Northern:

- Factory Station site (Site number: 28-Mr-345) (Figure 77–Figure 79);
- Lake Denmark Naval Ammunition Depot Station site (Site number: 28-Mr-376) (Figure 83); and
- Lake Denmark Hotel site (Site number: 28-Mr-334) (Figure 87).

4.3 NRHP definition of significance

The identification of historically significant properties is achieved through evaluation of their position within a larger historic context. According to the NRHP, historic contexts are defined as “the patterns, themes, or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within prehistory or history is made clear.”³⁶ A historic property is determined significant or not significant within a property’s historic context by applying the standardized National Register Criteria for Evaluation. To qualify as historic, a property must have an association with a relevant historic context as well as having retained its physical integrity through which its historic significance is conveyed.

The NRHP Criteria for Evaluation describe how properties and districts are significant for their association with important events or persons (Criterion A and Criterion B), for their importance in design or construction (Criterion C), or for their information potential (Criterion D). A property

³⁶ National Park Service, *National Register Bulletin #15*, 7.

may be significant under one or more criteria. The following is a brief description of each of the four NRHP Criteria for Evaluation, excerpted from *National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation*:

A. Event—associated with events that have made a significant contribution to the broad patterns of our history; or

B. Person—associated with the lives of persons significant in our past; or

C. Design/Construction—embodies the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master; or that possesses high artistic values; or that represents a significant and distinguishable entity whose components may lack individual distinction; or

D. Information Potential—yielded, or may be likely to yield, information important in prehistory or history.³⁷

4.4 Significance statement

The Wharton & Northern is significant locally under Criterion A for the transportation of iron ore and passengers of the area. It is also significant for Picatinny Arsenal for the transportation of employees, especially during WWI and WWII, the shipping of materials into Picatinny, and the shipping out of the final arsenal products.

It does not have significance under Criterion B.

The engineering of the ROW falls under Criterion C. This includes the alignment, location, and construction of bridges; location and design of stations; and basic engineering aspects, such as retaining walls.

³⁷ Ibid., 2.

There is a potential for significance under Criterion D for specific sites associated with the ROW like the Lake Denmark Hotel and specific station sites.

4.5 Period of Significance

The researchers determined that due to the massive number of changes to the pre-1905 portions of the ROW after the consolidation into the Wharton & Northern (all rail that was investigated for this report was manufactured post-1905) and sharp drop-off of passengers and freight that the period of significance for the Wharton & Northern is 1905 through 1945.³⁸

4.6 NRHP definition of integrity

In addition to possessing historical significance, a property must also retain sufficient physical integrity of features in order to convey its significance and be eligible for listing on the NRHP.³⁹ Integrity has very specific connotations in defining historic and cultural resources. Integrity is the authenticity of physical characteristics from which resources obtain their significance. Historic properties convey their significance through their integrity. Historic properties either retain their integrity and convey their significance or they do not.

4.7 Seven aspects of integrity

The National Register recognizes seven aspects or qualities of a property that define the concept of integrity. To retain historic integrity, a property must possess several, and usually most, of the seven aspects. The retention of specific aspects of historic integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant. The seven aspects of integrity are listed in *National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation* and summarized below:⁴⁰

³⁸ Note that 1945 is the end of the period of significance for the Administration and Research Historic District at Picatinny Arsenal.

³⁹ National Park Service, *National Register Bulletin #15*, 44–45.

⁴⁰ National Park Service, *National Register Bulletin #15*, 44–45.

1. *Location* is the place where the historic property was constructed, or the place where the historic event occurred.
2. *Design* is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials.
3. *Setting* is the physical environment of a historic property. Setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.
4. *Materials* are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. *Feeling* is a property's expression of the aesthetic or historic sense of a particular time period.
7. *Association* is the direct link between an important historic event or person and a historic property.

Historic districts and individual resources are considered significant if they possess a majority of the seven aspects outlined above. Properties are classified as either “contributing” or “noncontributing” resources. Contributing resources date from the historic period of significance that has been established. They contribute significance and character through their historical associations, architectural values, or both. Noncontributing resources are those that—due to the date of construction, alterations, or other factors—do not contribute to the district’s historic significance or character.

4.8 Integrity statement

The National Park Service states that “An evaluation of a common resource should include an evaluation of compliance with registration requirements. An assessment of integrity can contribute to an evaluation, but such an assessment should only be made after significance is established. All seven aspects of integrity should be addressed in the context: location, setting, design, material, workmanship, feeling, and association.”⁴¹

The ROW from around Little Lane to the stonewall at the Picatinny Arsenal Cannon Gate still reads as a railroad since the tracks and ties are still in place through most of the route. East of the Cannon Gate, the ROW exists and is readable until Egbert Lake Park. After Egbert Lake Park the integrity is unknown until the former junction with the Susquehanna Railroad at Charlotteburg.

Determining integrity for a railroad ROW can be exceedingly difficult due to the nature of this common resource. In the end, the seven aspects of integrity still need to be addressed.

Location—the location has not changed.

Design—several key design elements of the ROW are missing; the trestle and bridge over the Rockaway River in Wharton, all the stations, and the bridge north of Egbert Lake have all been demolished.

Setting—while the overall setting of a ROW through forested land is intact, the exact settings of bridges and stations have been removed.

Materials—while several portions of original materials are extant, like the pilings on the two extant bridges and the stone retaining walls, most key materials have been removed by the demolition of the Rockaway River trestle and bridge and the stations.

Workmanship—the only aspects of workmanship remaining are the stone retaining walls and culverts.

Feeling—while the ROW does retain a feeling of a railroad, the removal of much of the trestle, Rockaway River bridge, and stations damages the overall integrity of feeling for the ROW for the period of significance.

⁴¹ Barbara Wyatt and Roger Reed, *Evaluating Common Resources for National Register of Historic Places Eligibility*, A National Register White Paper, March 27, 2020, 6–7.

Association—typically the removal of tracks and roadbed is not damaging to the integrity of a railroad ROW, but in the case of the Wharton & Northern, the removal of the tracks and roadbed at the stonewall next to the Picatinny Cannon Gate, the removal of the transfer yard at Picatinny Arsenal, and the demolition of the stations throughout the system has damaged the association between the Wharton & Northern, the carrying of iron ore, and its association with Picatinny Arsenal.

5 Conclusions and Recommendations

5.1 Final determination of eligibility

While the Wharton & Northern is significant for investigation on eligibility for the NRHP, there is not enough integrity of the entire ROW for the former railroad to be recommended eligible for the NRHP. For instance, the portions in the Borough of Wharton, which are significant under Criterion A for the transportation of iron ore, are not extant. There is no evidence of the former junctions of the railroad that once connected it to the Lackawanna or the Susquehanna. The existence of the ROW between Egbert Lake Park and the Susquehanna is unknown, but it appears from property tax maps that the former ROW has been absorbed into adjacent properties. This leaves only the ROW from Egbert Lake Park to I-80 with a semblance of a railroad ROW.

While the line south of Route 15 to I-80 is owned by the Federal Government, the Army clearly owns the ROW from Route 15 north to Lake Denmark (the Picatinny Arsenal property boundary). While this portion does have significance for the transportation of employees, materials, and materiel, the ROW was determined not to be contributing to the Administration and Research Historic District in the 2016 *Cultural Landscape Analysis of Existing Historic Districts* report.⁴² The findings of the current report corroborate the determination that the ROW is not eligible for the NRHP. Since the significance is for the Wharton & Northern line as a whole (Picatinny was not the only stop, nor was the line used purely for Picatinny and the military), the trails evident through Picatinny property and north to Egbert Lake Park are not enough to make the entire line eligible for the NRHP.

In order to be eligible as a railroad corridor historic district, the ROW should still have a beginning and end, be evaluated as a historic district, have historically provided significant rail service, and have a defensible period of significance. Contributing resources for a railroad historic district should include all major built elements of the railroad that were constructed within the period of significance.

⁴² Sunny Adams, Megan W. Tooker, and Adam Smith, *Cultural Landscape Analysis of Existing Historic Districts, Picatinny Arsenal, New Jersey* (ERDC-CERL TR 16-4), (Champaign, IL: ERDC-CERL, 2016).

5.2 Recommendations

It is the recommendation of the authors of this report that the Wharton & Northern Railroad ROW is not eligible for the NRHP due to the demolition of bridges, trestles, yards, and stations throughout the ROW.

There are certain archaeological sites associated with the railroad that need to be investigated further for Criterion D, such as the sites of the Arsenal, Factory, Navy Depot, and Lake Denmark stations. These archeological sites may be eligible for the NRHP due to their association with the Wharton & Norton, but those determinations were beyond the purview of this report.

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Unit Conversion Factors

Multiply	By	To Obtain
acres	4,046.873	square meters
feet	0.3048	meters
inches	0.0254	meters
miles (U.S. statute)	1,609.347	meters
miles per hour	0.44704	meters per second
square feet	0.09290304	square meters
square miles	2.589998 E+06	square meters
yards	0.9144	meters

Appendix A: Same-scale Maps

A series of hand-drawn, same-scale maps have been attached as an Appendix in this report to graphically show the changes in the rail lines around Picatinny Arsenal over the past 140 years. Early transportation routes, which predate the Wharton & Northern Railroad are shown in Figure A-1. The Wharton & Northern is illustrated in Figure A-2–Figure A-5. The only remaining railroads are illustrated in Figure A-7 and Figure A-8.

Figure A-1. Canal and rail routes prior to the Wharton & Northern, 1880.

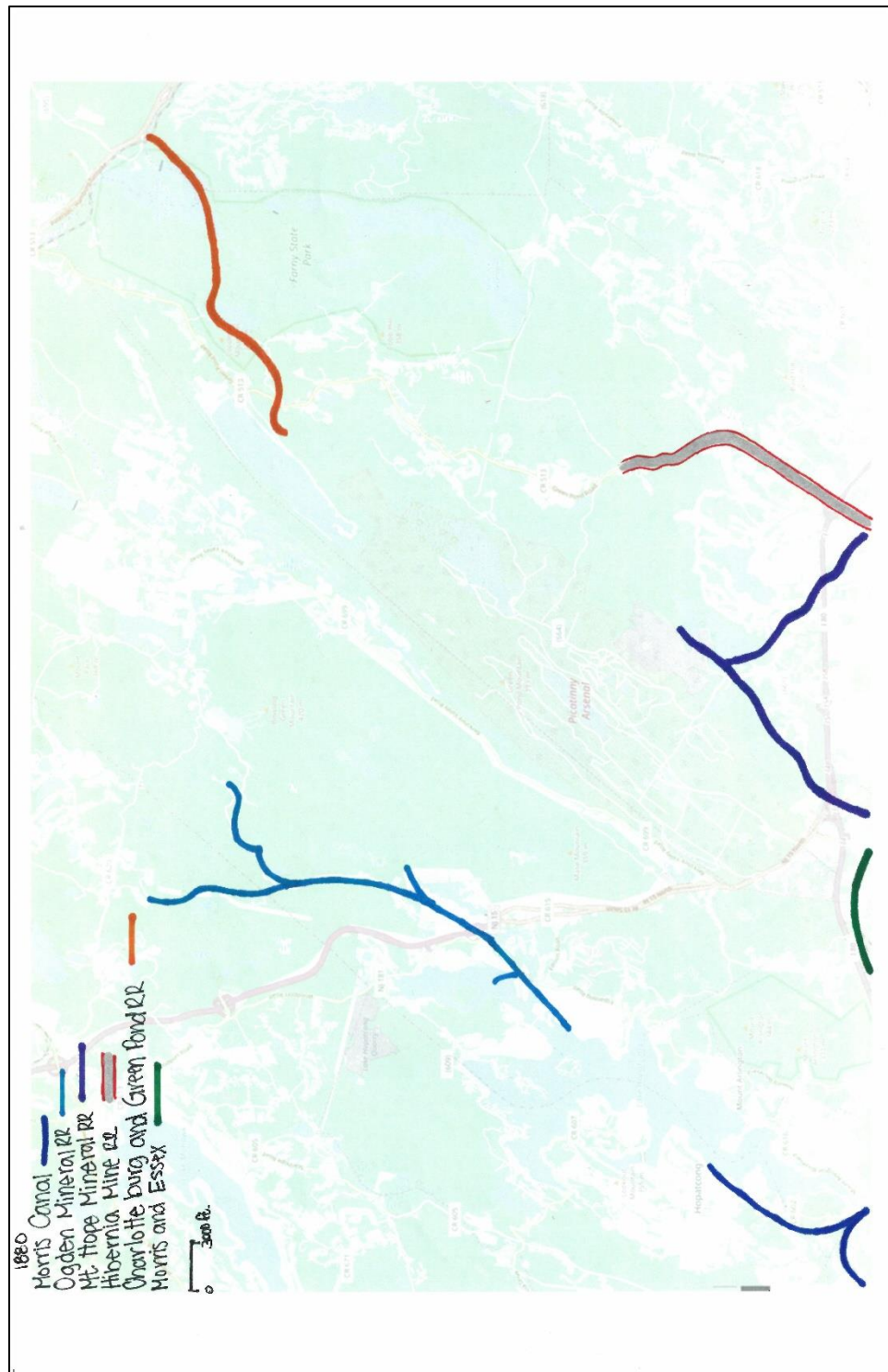


Figure A-2. Canal and rail routes, with the Wharton & Northern in yellow, 1900.

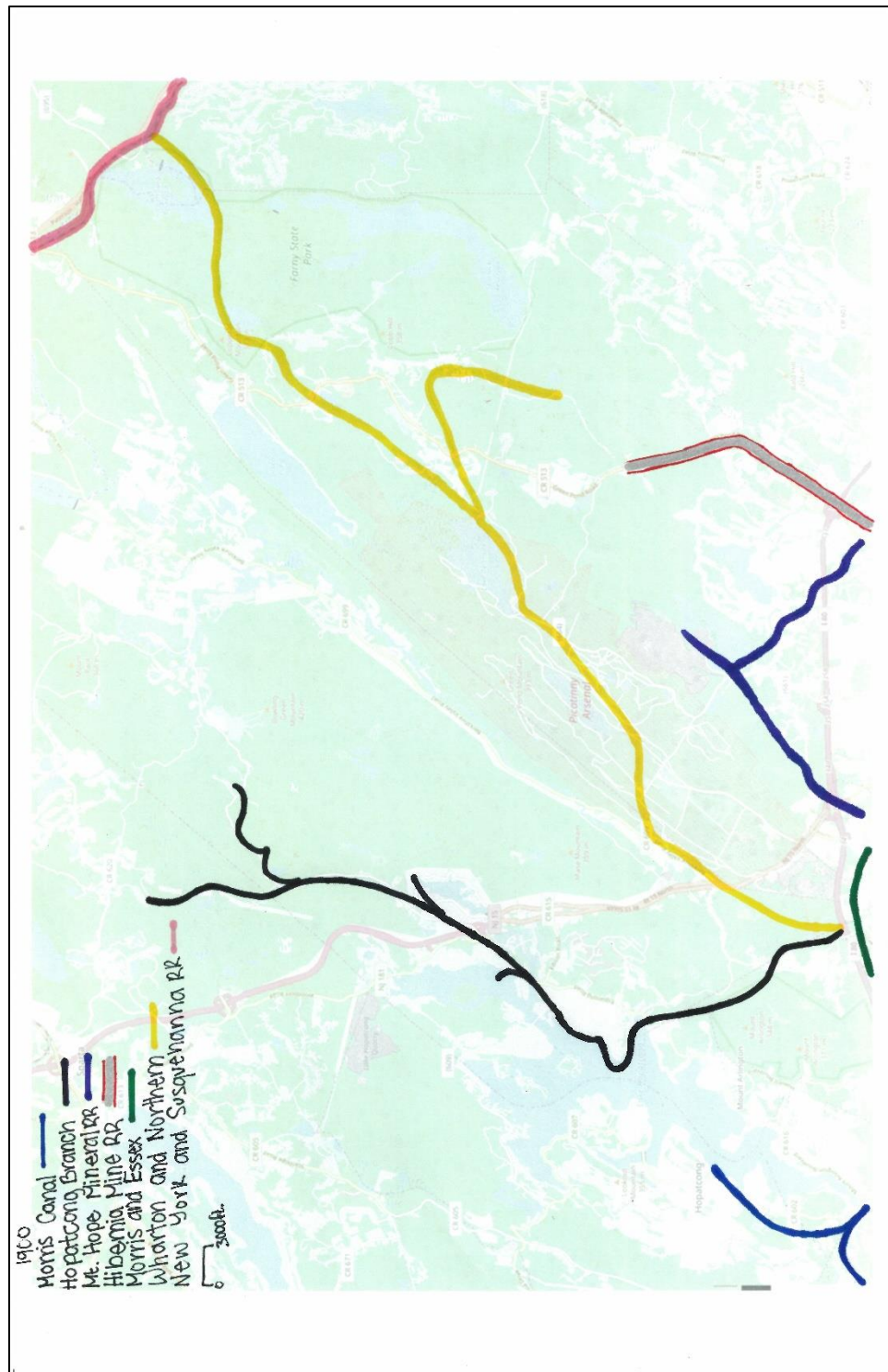


Figure A-3. Canal and rail routes, with the Wharton & Northern in yellow, 1910.

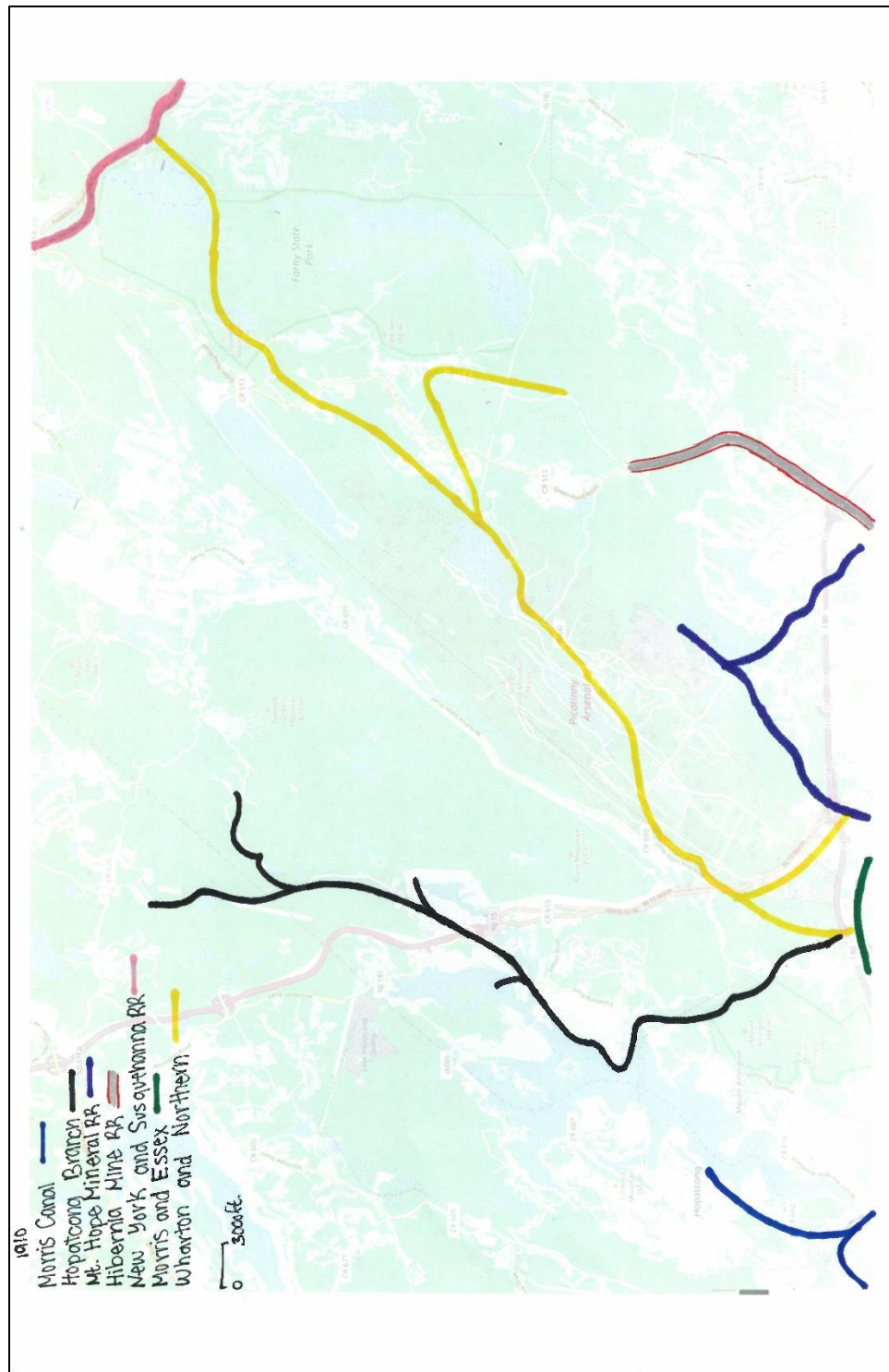


Figure A-4. Rail routes, with the Wharton & Northern in yellow, 1930.

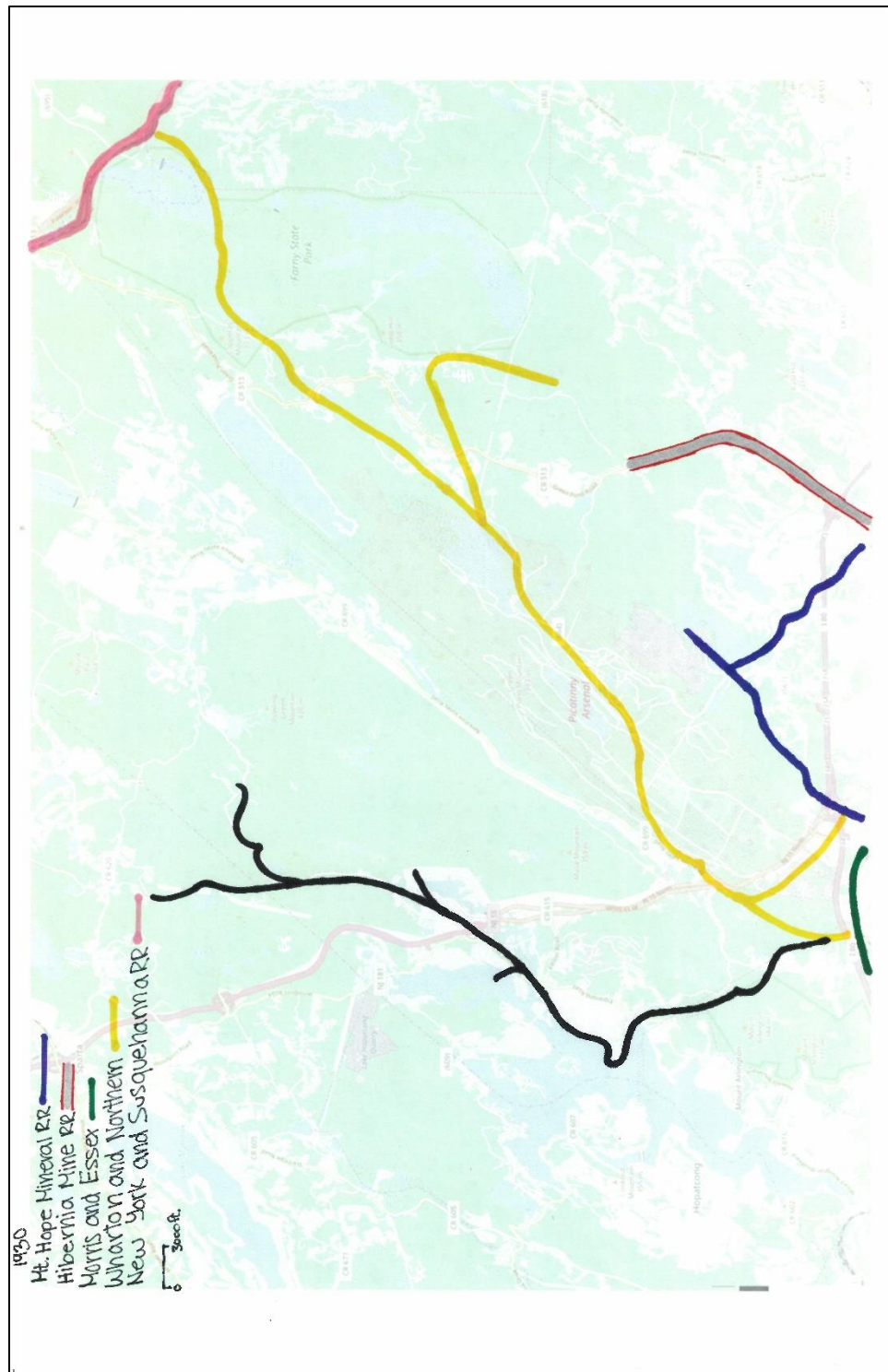


Figure A-5. Rail routes, with the Wharton & Northern in yellow, 1960.

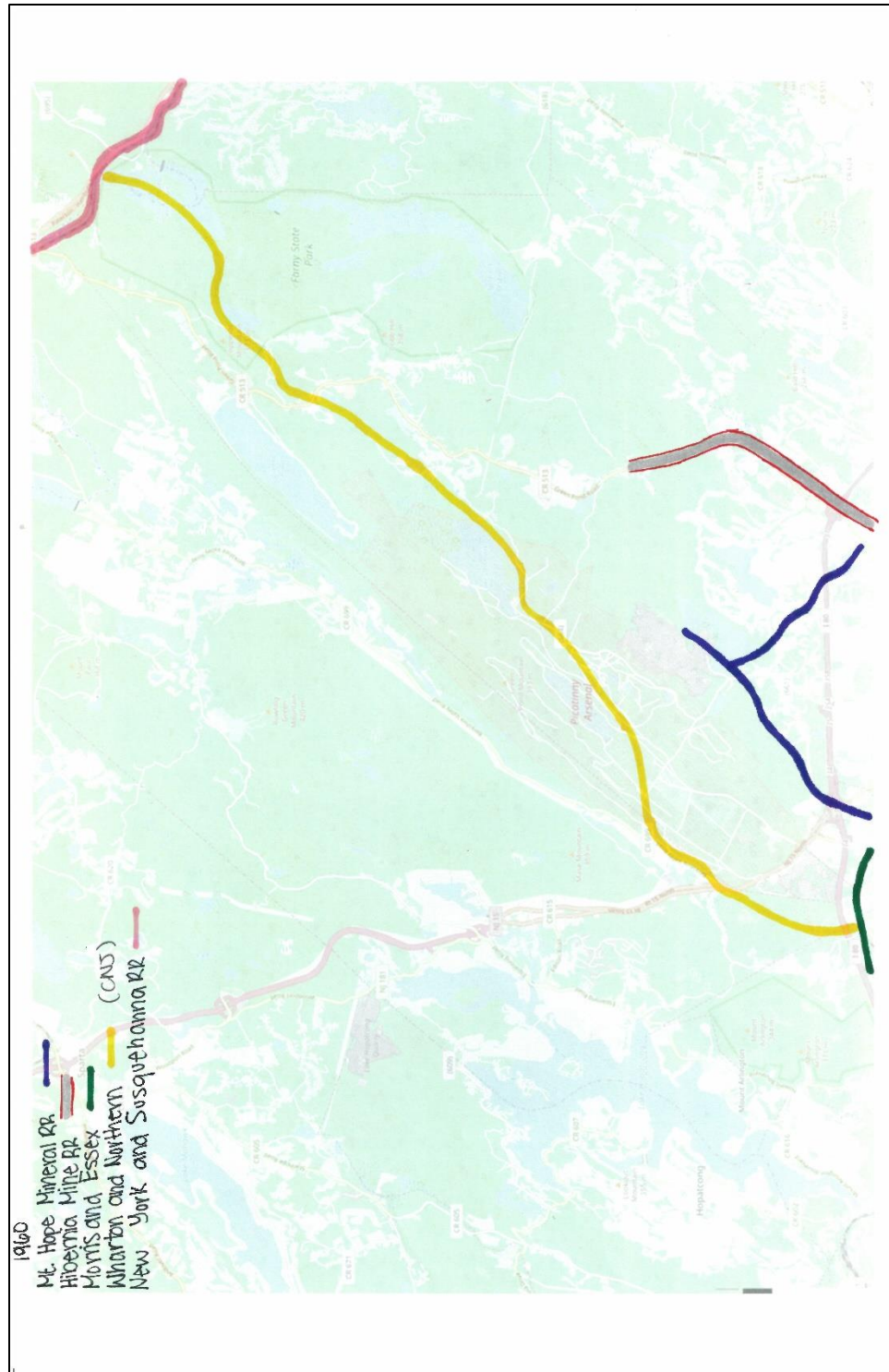


Figure A-6. Rail routes, with the Wharton & Northern in yellow, 1975.

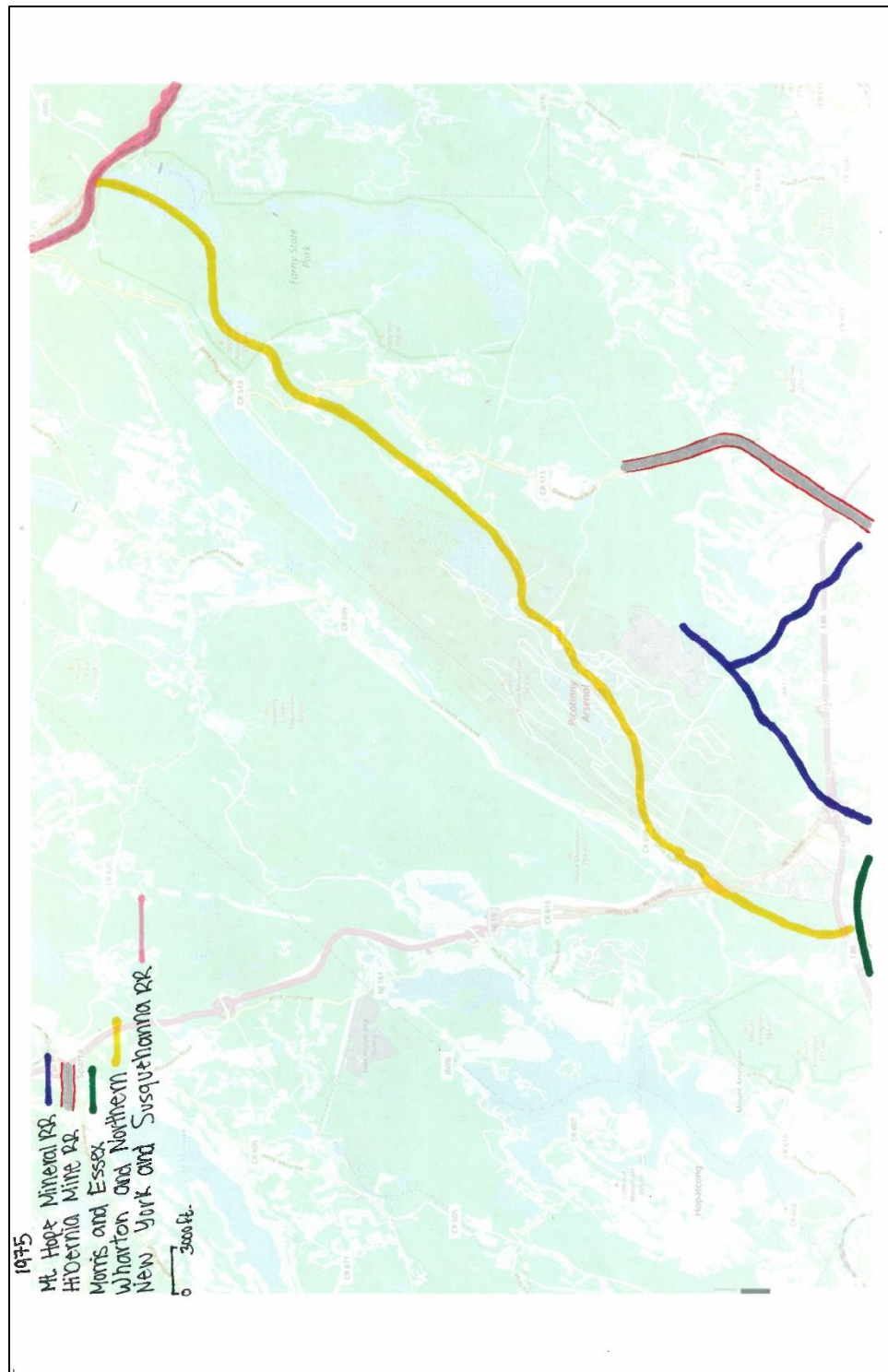


Figure A-7. Remaining rail routes and the Wharton & Northern no longer extant, 2000.

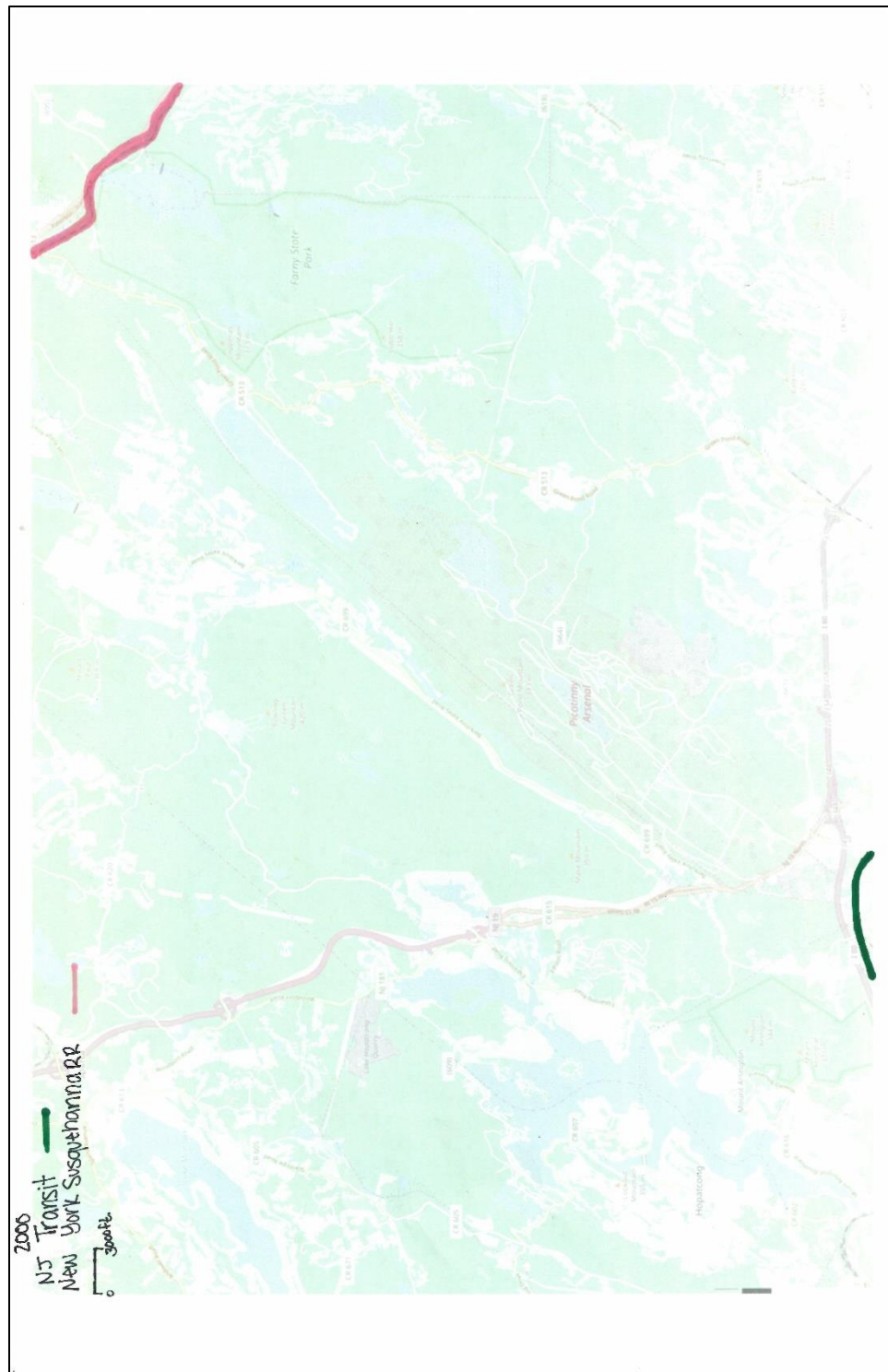
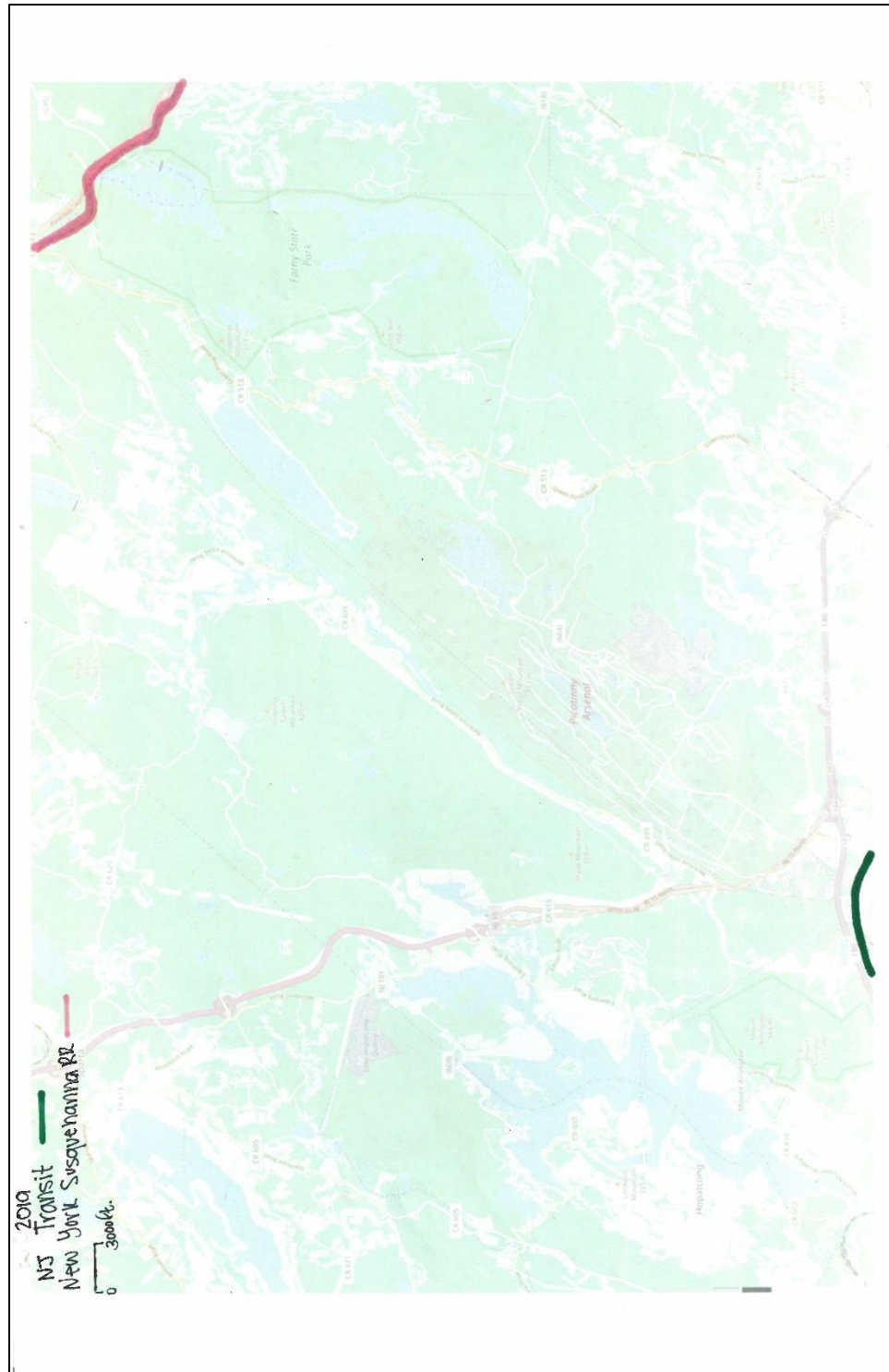


Figure A-8. Remaining rail routes and the Wharton & Northern no longer extant, 2019.



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14. ABSTRACT The Wharton & Northern Railroad was founded in 1905 and combined a series of existing railroads that carried iron ore from the mines located to the south of Picatinny Arsenal, New Jersey. The section of the line north of Picatinny Arsenal was abandoned by Con-rail in 1976. The same year, the section of the line south of the Arsenal reverted to Army control and ceased to be utilized. It is the recommendation of the authors of this report that the Wharton & Northern Railroad right-of-way (ROW) is not eligible for the National Register of Historic Places (NRHP) due to the prior demolition of bridges, trestles, yards, and stations throughout. There are certain archaeological sites associated with the railroad that need to be investigated further for Criterion D, such as the sites of the Arsenal, Factory, Navy Depot, and Lake Denmark stations. These archeological sites may be eligible for the NRHP due to their association with the Wharton & Northern, but those determinations were beyond the purview of this report.						
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