1. Name of Property

#### United States Department of the Interior **National Park Service**

# **RECEIVED 2280**

not for publication

vicinity

code 031<sup>621</sup> zip code \_\_\_\_08520

252

# **National Register of Historic Places Registration Form**

# Nat. Register of Historic Places National Park Service

APR 01 2016

This for . Hist an it ente type

historic name Camden & Amboy Railroad Right-of-Way Site					
other names/site	e number				
2. Location					
street & number	North side of Rogers adjacent to a municipa			rds west of Mer	cer Street, and
city or town	Hightstown Borough				
state New Jerse	ey code	NJ	county	Mercer	code

#### 3. State/Federal Agency Certification

National Register. removed from the National

Register. other, (explain:)

request for determination of e	The National Historic Preservation Act, as amended, I certify that ligibility meets the documentation standards for registering pro- bocedural and professional requirements set forth in 36 CFR Part e National Register criteria. I recommend that this property be X locally. See continuation sheet for additional commend Asc' + Common Outcommend = 3 (7)	operties in the National Register art 60. In my opinion, the property e considered significant ments.
Signature of certifying official/Title	Date	
	NO DEP	
State or Federal agency and bureau		
In my opinion, the property m additional comments. Signature of certifying official/Title	neets does not meet the National Register criteria Date	See continuation sheet for
State or Federal agency and bureau		
4. National Park Service Certific	ation	
I hereby certify that this property is:	Signature of the Keeper	Date of Action
entered in the National Reg		6/16/16
determined eligible for the National Register. See continuation sh	leet.	
determined not eligible for t	he	

s form is for use in nonlinating of requesting determinations of engibility for individual properties of districts. See instructions in now to complete the reational Register of
toric Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If
tem does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance,
er only categories and subcategories listed in the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a
ewriter, word processor, or computer, to complete all items.

Mercer County, NJ County and State

5. Classification			······································	· · · · · · · · · · · · · · · · · · ·	
Ownership of Property	Category of Property			sources within Prope	
(Check as many boxes as apply)	(Check only one box)		(Do not include p	previously listed resource	s in the count.)
private	building(s)		Contributing	Noncontributing	
X public-local	district		· · · · · ·		buildings
public-State	X site		1		sites
public-Federal	structure				structures
	object				objects
			1	0	Total
Name of related multiple property (Enter "N/A" if property is not part of a n				ntributing resources ational Register	previously
N/A			0		
6. Function or Use			<u>.</u>		<u></u>
Historic Functions			t Functions		
(Enter categories from instructions)		(Enter c	ategories from ins	tructions)	
TRANSPORTATION / rail-related		LANDSCAPE / park			
					······
7. Description			<u> </u>	******	······································
Architectural Classification (Enter categories from instructions)		Materia (Enter c	als ategories from ins	tructions)	· · · · · · · · · · · · · · · · · · ·
N/A		foundation <u>N/A</u>			
		walls			
		roof			
		other			
	1				

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

# 8 Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the
property for National Register listing.)

- X A Property is associated with events that have made a significant contribution to the broad patterns of our history.
  - **B** Property is associated with the lives of persons significant in our past.

Property embodies the distinctive characteristics
of a type, period or method of construction or
represents the work of a master, or possesses
high artistic values, or represents a significant and
distinguishable entity whose components lack individual distinction.

D Property has yielded, or is likely to yield, information important in prehistory or history.

#### Criteria considerations

(mark "x" in all the boxes that apply.)

#### Property is:

- A owned by a religious institution or used for religious purposes.
- **B** removed from its original location.
- C a birthplace or grave.
- D a cemetery.
  - **E** a reconstructed building, object or structure.
  - **F** a commemorative property.
- **G** less than 50 years of age or achieved significance within the past 50 years.

#### **Narrative Statement of Significance**

(Explain the significance of the property on one or more continuation sheets.)

# 9. Major Bibliographical References

#### Bibliography

(cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):	Primary location of additional data
preliminary determination of individual listing (36	State Historic Preservation Office
CFR 67) has been requested	Other State agency
previously listed in the National Register	Federal agency
previously determined eligible by the National	Local government
Register	University
designated a National Historic Landmark	Other
recorded by Historic American Buildings Survey	Name of repository:
#	
recorded by Historic American Engineering	
Record #	

Mercer County, NJ

County and State

**Areas of Significance** 

(Enter categories from instructions)

Engin	eering
	nunity Development
Period	of Significance
	a.1855
	cant Dates
Septer	nber-October 1832
	· · ·
	cant Person
(Compl	ete if Criterion B is marked above)
N/A	
Cultur	al Affiliation
N/A	
	ect/Builder
	William S. (1801-1868) engineer

Camden & Amboy RR right-of-way site Name of Property	Mercer County, NJ		
10. Geographical Data			
Acreage of property Less than one acre			
UTM References (Place additional UTM references on a continuation sheet.)			
1 18 485207 4523044 Zone Easting Northing 2	3 Zone Easting Northing 4 See continuation sheet		
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)			
Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)			
11. Form Prepared By			
name/title Katherine J. Patten, Pierre Lacombe, Christian Kirkpatric	k, Robert F. Patten		
organization Hightstown Borough Historic Preservation Commissio	n dateOctober 2015		
street & number	telephone (609) 915-8389		
city or town Hightstown			
Additional Documentation	······································		
Submit the following items with the completed form: Continuation Sheets			
Maps			
A USGS map (7.5 or 15 minute series) indicating the pr	operty's location.		
A Sketch map for historic districts and properties having	a large acreage or numerous resources.		
Photographs			
Representative black and white photographs of the pro	pperty.		
Additional items (Check with the SHPO or FPO for any additional items)			
Property Owner			
(Complete this item at the request of the SHPO or FPO.)			
name Borough of Hightstown			
street & number 156 Bank Street	telephone (609) 490-5100		
city or town <u>Hightstown</u>	state <u>NJ</u> zip code <u>08520</u>		

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.470 *et seq.*)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this from to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

Section number 7 Page 1

# **Description Narrative**

# **Summary Paragraph**

The Camden & Amboy Railroad Right-of-Way Site along Rogers Avenue in Hightstown Borough is a small, preserved portion of the first roadbed laid for the Camden & Amboy Railroad in 1832. This site, while not unique, is nonetheless remarkable because it contains undisturbed sleeper stones that have been deliberately exposed for the purpose of interpretation and public viewing, due to the important history that the stones represent. The site consists of twenty-two sleeper stones that lie *in situ* in a forty-foot long segment of the railroad bed. They were installed to support the iron rails of the first construction of the railroad. The twentytwo sleeper stones are composed of locally quarried conglomerate, and they rest in about ten cubic yards of handmade ballast that is also an artifact of the original construction of the line. (A thin layer of white gravel was added to the ground surface in the 1980s to protect the original ballast from erosion damage due to heavy rain, and a wooden border was placed around the site to protect its integrity from the grassy lawn that abuts it. Each sleeper has two or four holes drilled into the top to accept iron spikes that held the iron rail in place. Most sleepers have a flat area worn in the top to set a wooden plate that separated the sleeper from the rail. A few sleepers show quarry marks. The sleepers are underlain and surrounded on four sides by the ballast, which consists of handmade gravel produced by breaking local cobbles and rocks with a sledge hammer. An interpretive sign was added in 2015 to the east side of the site, just outside the wood border. It is shaded by a couple of trees added in recent years.

# **Sleeper Composition**

The in situ sleeper stones consist of conglomerate. More specifically, the sleeper stones consist of an iron oxide cemented conglomerate of Beacon Hill Gravel, a local rock that outcrops about six miles southeast of Hightstown. This is the only rock type used for the in situ sleeper stones. However, other sleeper stones found within in the Hightstown Borough area are composed of gneiss, gabbro, quartzite, and sandstone. Conglomerate used for the sleeper stones can be further divided into a small pebble conglomerate and a large pebble conglomerate. The small pebble conglomerate has clasts of milky quartz pebbles that are up to one centimeter in diameter. The large pebble conglomerates have clasts that are as great as eight centimeters in diameter. The clasts are predominately quartz and chert, but also include sandstone and mudstone.

According to the American Railroad Journal and Mechanics' Magazine:<sup>1</sup>

This road was commenced to be graded in December, 1830. It is graded 15 feet in width, at the grade of the road; ditches 3 feet deep, 18 inches in width at the bottom, and 11 feet in width at the top, level of grade.

From Hightstown (north) to Gravel Hill, a distance of five and a half miles, the road is graded 25 feet in width, for a double track of rails. The foundation of this road is formed by two continuous trenches, three feet in width, and one foot in depth, being filled with broken stone; over these trenches a roller, weighing three tons, was passed a number of times until the whole was a solid mass.

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

<sup>&</sup>lt;sup>1</sup> American Railroad Journal and Mechanics Magazine (New York: D.K. Minor & G.C. Schaeffer, 1838).

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

Section number 7 Page 2

On 26 miles, 76 chains, stone blocks, two feet square, 10-13 inches thick, were placed 3.2 feet apart, from centre to centre - embedded with small stone on the trenches; then settled with a heavy wooden driver, worked (except at the junction blocks, which have four holes,) one inch in diameter, and five inches deep. Upon the stone blocks, locust chairs 14 inches long, 6 to 8 inches in width, and from 1 to 2 inches thick, are placed, and attached to the stone blocks, by tree nails driven into the holes of the stone blocks. The chairs [sic] were then dressed, to receive the edge rail, of the I form (invented by R.L. Stevens, Esq.,) 3 <sup>1</sup>/<sub>2</sub> inches high, 2 1/8 inches on the upper funning surface, and three and a half inches in width on its base, weighing 42 pounds to the yard, is laid and fastened by spikes six inches long, with hooked heads, the ends of the bars resting upon wrought iron plates, or cast iron chairs, and are connected together by an iron tongue five inches long, two inches wide, and five-eighths of an inch thick, with two rivets passing through the ends of the bars and tongues-oblong hole, to allow for expunctral contraction.

# **Sleeper Dimensions**

The top of the sleepers at the in situ site are square or slightly rectangular with lengths and widths that range from seventeen to twenty-three inches. Generally, if the sleeper is rectangular, the shorter dimension of each sleeper is parallel with the rail direction. Measurements of more than two hundred unearthed stone sleepers in Hightstown and along the Camden & Amboy Railroad right-of-way show that the thickness ranges from eight to thirteen inches. The weight of most sleepers is estimated to range from three hundred to three hundred fifty pounds.

# Marks on the sleepers

Sleepers have marks on their surface including quarry marks, rail spike holes, flat recesses for rail plates, grooves for the rail, and lettering. Such features help define the sleeper.

# **Quarry marks**

The Camden & Amboy Railroad sleeper stones in Hightstown have three main quarry marks: pin and feather, pry bar, and large diameter drill marks. Wedge marks are found on a few sleepers along other parts of the rightof-way. The most obvious quarrying marks are pin-and-feather drill holes. Typically, the pin and feather marks consist of a row of two to three small shallow drill holes that are two to three inches deep and about one-half inch in diameter. Each drill hole is three to six inches from an adjacent hole. The row of holes typically is found along the edges of a gneiss sleeper. Pin and feather marks have not been found along the edges of a conglomerate sleeper. Large diameter (less than two inches across) drill marks are found on some conglomerate and some quartzite sleepers. The top and bottom of the drill holes are rarely found on the sleepers so the drill marks may have penetrated a few feet in contrast with the pin and feather marks.

The most common quarry mark found on the conglomerate sleepers is caused by a pry bar. Generally, these marks are along the top and bottom of a sleeper and consist of shallow ruts about one to two inches wide and two to five inches long and less than a one-quarter inch deep. On the edge of the conglomerate sleepers, the pry bars were used to square the sleeper and generally leave a roughly scalloped edge. Because there are many pry bar marks on the sleepers, it is thought that most conglomerate sleepers were shaped with the pry bar.

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

Section number 7 Page 3

# Chisel marks for wood and iron plates

All of the in situ site sleepers have a flat area chiseled into the top surface to hold a wood or iron plate. The plate lay between the sleeper and the rail. Its purpose was to provide a level surface for the rail to sit upon since leveling the stone sleepers was a difficult task. In addition, the wood or iron plate prevented abrasion of the iron rail against the stone sleeper. Lastly, the wood plates may have, in a minor way, cushioned the ride for the passengers. The chiseled surface generally is eight by fourteen inches and less than one half inch deep. On the top surface of two-hole sleepers, a plank of durable wood that was fourteen inches long, eight inches wide and one-half to two inches thick was placed on the chiseled flat area.

In *Early American Railroads "Die innem Communicationem*," Franz Anton Ritter von Gertzner reported that the Camden & Amboy Railroad used planks of black locust, a tough and rot resistant wood. With four-hole sleepers, the chiseled flat surface was created for an iron plate which was necessary to absorb the increased abuse caused by the joint of the two rails.<sup>2</sup> Rails on each side of the joint rode up and down as the wheels of the train passed over. The shearing action of the joint likely caused excessive wearing of the wood plates.

The approximate thickness of the wood plank can be determined by placing an iron plate on two successive four-hole sleepers. Next, place the ends of the sixteen foot long rail on each iron plate. The gap between the rail and the two-hole stone sleeper can be measured. An 8 inch x 14 inch plank with an appropriate thickness can then be inserted between the rail and each two-hole sleeper. This effort would insure that the iron rail was fully supported at each sleeper.

The distance between centers of two four-hole sleepers measures exactly sixteen feet. This length of the iron rails was used in 1832 during construction of the Camden & Amboy Railroad right-of-way. Arrangement of the four-hole sleepers is staggered between the two rails. This was done so that the joint between two iron rails on one side of the track is offset one-half rail length from the joint on the other side of the track. The pattern of the sleepers for the Camden & Amboy Railroad is a four-hole sleeper, four two-hole sleepers, and a four-hole sleeper. (see Photographs and Illustrations, #3A).

# **Spike Holes**

Each stone sleeper has two or four holes drilled in the top surface for driving the spikes that held the rails to the sleepers. On the four-hole sleeper, the four holes are arranged in a roughly square pattern. On the two-hole sleepers, the arrangement of the two holes can be 'right-hole forward' or 'left-hole forward.' 'Right-hole forward' means that the hole on the right side of the rail is forward of the hole on the left side of the rail. The two-hole sleepers at the in situ site have left-hole forward arrangements. The depth of the spike holes range from two to five inches, but typically they are four and one-half inches deep. All holes are one inch in diameter. The holes are four and one-half inches apart in the two-hole sleepers and three and one-half inches apart in the four-hole sleepers.

<sup>&</sup>lt;sup>2</sup> von Gertsner, Franz Anton Ritter. *Early American Railroads "Die innem Communicationem.*" 1842-1843, transcribed from *Early American Railroads*, (Stanford, California: Stanford University Press.1997).

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

Section number 7 Page 4

# **Ballast Composition**

A recent excavation was undertaken by geologist Pierre Lacombe on June 10, 2014 of the ballast under and around one of the sleeper stones at the Hightstown site. The excavation was limited to the interval between stones numbered 25 and 26, as indicated in the chart from the Smithsonian, included in the Accompanying Documentation. The excavation has revealed that the ballast consists of broken cobbles of quartzite and conglomeratic gravel. The top layer of decorative marble gravel installed in the 1980s was removed and a hole was excavated that was approximately one and one-half feet wide, two feet long and two feet deep. The upper eighteen inches consisted of a mixture of gravel up to two inches across, fine rounded quartz pebbles up to one-half inch across, sand, and sandy clay clumps. The excavated material was sieved through a one-half inch wire mesh and approximately two cubic feet of gravel ranging from one to two and one-half inches across was collected. (Photographs and Illustrations, #5 and #6)

The gravel was washed and sorted by rock type. Two rock types were found: broken water-worn cobbles of quartzite and broken conglomerate, and they were approximately equally represented. Precise percentages were not derived. The excavation yielded about one cubic foot of each type. Water-worn cobbles and boulders of quartzite are common detritus found in Stony Brook, Rocky Brook, and in the farm fields around Hightstown. These stones were evidently produced by farmers who removed larger cobbles and boulders from their fields and dumped them in ravines or in wet lands. In all likelihood, the farmers could make extra money by breaking the cobbles into two-inch pieces of gravel and transporting the gravel to the Camden & Amboy Railroad right-of-way.<sup>3</sup> The smooth surface of the water-worn cobbles is visible on many pieces of gravel. The conglomeratic gravel was similarly made by breaking boulders of conglomerate into one- to two-inch gravel size pieces using a sledge hammer. (Photographs and Illustrations, #6)

The *in situ* gravel was in a matrix of sand and large sandy clay clots or balls. It is unlikely the builders of the Camden & Amboy Railroad would use clay for ballast as it would not drain well. The clay clots may have originally been Stockton or Passaic mudstone gravel, but because the rock was broken and then buried for more than one-hundred eighty years, the mudstone weathered and lost its indurated nature.

Construction drawings (See Photographs and Illustrations, #7) by von Gertsner in 1839 show the strata at each site consists of native material overlain by a ballast of fine gravel which is overlain by a ballast of coarse gravel. The sleeper stones overlie the coarse gravel ballast and are surrounded by coarse gravel ballast. This stratigraphy was not observed in the excavation created during 2014. The strata consisted of native material overlain by a sleeper stone and surrounded by coarse ballast. It could be surmised that since the railroad was constructed as rapidly as possible from 1831 to 1832 in order to complete the track from Bordentown to Amboy in the shortest possible time, the construction did not exactly follow the drawings depicted by von Gertsner.

<sup>&</sup>lt;sup>3</sup> According to its 1840 report,the Camden & Amboy Railroad had spent to that point more than \$103,000 on "Broken Stone" and more than \$22,000 for "Gravelling" in the construction of its rights-of-way, more than three percent of its total reported capital outlay for the construction of its tracks, buildings, and rolling stock (see Section 8).

Section number 8 Page 1

# **Statement of Significance**

# Summary paragraph

Built in 1831-32, the Camden & Amboy Railroad Right-of-Way Site in Hightstown Borough, Mercer County--a short, surviving segment of the original Camden & Amboy roadbed--is of local and statewide significance under National Register Criterion A in transportation history, for its association with the beginnings and rise of American railroading. The Camden & Amboy was the first railroad to operate in New Jersey and only the third in the nation, and was the first railroad to connect major American cities. It transformed the New Jersey economy permanently and its politics for more than a generation. Furthermore, Hightstown, the northern terminus during the first three months of its operation, was completely transformed by the railroad's presence. from a small mill village to a sizeable railroad town in one generation, from which the line derives local significance in the community's development history. The construction of its line meets Criterion C with local significance in engineering history because it reflects that brief period in the 1830s when the British influence on railroad building was eagerly embraced, until experiences forced adaptation to American conditions. This is best reflected in the use of stone railroad blocks, on the eve of the adoption of wooden crossties, a Camden & Amboy invention. The period of significance of the nominated site extends from 1831 when construction began to circa 1855, when improvements to the roadbed in Hightstown forced the discontinuance of the original track. The track, stripped of its rails, was buried beneath a foot or more of fill. This preserved the roadbed for more than 125 years, until operations by the Penn-Central Railroad ceased in 1983. The site was discovered during the succeeding year. Today, the Hightstown site is one of the only places where remnants of the original Camden & Amboy line are preserved in situ, exposed, and interpreted.

# The Incunabula of American Railroading

The earliest railroads began in the mines of England in the seventeenth century.<sup>1</sup> Collieries of northern England used wooden rails as a method of reducing the labor of hauling coal from the mine to the place of shipment. Influenced by a shortage of timber and a reduction in the price of manufactured iron, iron became commonly used in the construction of the tracks. In 1767, the first rail was cast in three-foot lengths. Later, rolling six feet was achieved, and by 1815, rails had reached fifteen feet in length. With the construction of rails making locomotion possible, interest in using the steam engine was established. By the early 1820's, English technology was recognized by most people interested in railroad transportation as the most advanced with respect to steam engines and railway construction. On September 15, 1830, George Stevenson, an early English railroad pioneer, changed the public's perception of transportation's possibilities with his 'mile a minute' locomotive engine, as it opened the Liverpool and Manchester's Railway. The success of railroads in England was hailed in the United States as proof that railroads were a part of the future.

Stone was commonly used in Britain to support rails, and it was tried in various forms on the Camden & Amboy Railroad and others among the first American railroads. The Baltimore & Ohio Railroad, the New Castle and Frenchtown Railroad in Delaware, the Columbia-Philadelphia Railroad in Pennsylvania, and several

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

<sup>&</sup>lt;sup>1</sup> This paragraph is based on 4. Raidabaugh, G.P. Origin and Development of the Railway Rail, English and American Wood, Iron and Steel. (Baltimore, Maryland: The Pennsylvania Steel Co and Maryland Steel Co, Kohn & Pollack, Inc. 1915).

Section number 8 Page 2

other lines were built upon roadbeds constructed with stone sleepers, stone blocks, or stone rails.<sup>2</sup> This use of stone in its various forms was the clearest physical evidence of British influence upon the American railroad track. The Camden & Amboy line was built during the brief period before American railroad building experience moved decisively away from stone blocks as the principal structural support for the rails, or as the rails, themselves (see below).

To a very considerable degree, American railroading was pioneered in New Jersey. Colonel John Stevens, of Hoboken, NJ, who has been called the "Father of American Railroading," made efforts as early as 1812 to demonstrate the potential for harnessing steam to rail travel.<sup>3</sup> His early efforts to develop steam transportation cannot be overstated. Stevens first focused his work on water transportation and in 1798 constructed a steamboat that navigated the Hudson River. In 1811, he developed the first steam ferry to travel between New York City and Hoboken, across the river in New Jersey. Stevens turned his attention to land steam transportation during the War of 1812. He urged the construction of a steam road instead of the Erie Canal. He first applied to the New Jersey Legislature for a charter and was given what has been claimed to be the world's first railroad charter in 1815. If it had been built then, New Jersey could have claimed to have had the first railroad in the nation. Unfortunately, that didn't happen, in spite of the fact that John Stevens worked tirelessly to convince politicians and financiers to support it. He developed a survey, wrote letters, and corresponded with DeWitt Clinton, Governor of New York State and others, to push his railroad schemes, but to no avail. A plan to sell 5,000 shares of stock at one hundred dollars each never materialized. By 1825, Stevens was seventy-six years old, and in one more effort to convince the politicians and the public, he built the first American steam locomotive, a "Steam Waggon," which ran on a circular track at his Hoboken estate, so they could actually see his vision manifested as a working vehicle. With this effort, and the general success of railroads in England, public enthusiasm finally supported this new form of transportation.

The Stevens family again petitioned the New Jersey Legislature to give them permission to build a railroad from a point opposite Philadelphia to Bordentown and then across the state to the Raritan Bay, rather than between Trenton and New Brunswick as had originally been planned. Throughout 1829 and 1830, a deadlock arose in the State legislature between the supporters of the Union Lines--the railroad supporters led by Robert and Edwin Stevens--and the People's Line, the Delaware & Raritan Canal supporters led by Robert Stockton, an advocate and controller of canal rights from Trenton to New Brunswick.<sup>4</sup> These two powerful lobbies, each vying for control of the stage coach lines and means by which freight and people would be transported between Philadelphia and New York, fought bitterly to achieve their goals. Finally, agreement was reached between the Stevens family and the supporters of the Canal Party, the Stockton family. One charter was granted to the Camden & Amboy Company and one to the Delaware & Raritan Canal Company, on the same day, February 4, 1830. The Camden & Amboy Railroad and Transportation Company's charter authorized construction of a

<sup>&</sup>lt;sup>2</sup> Personal communication, Caroline Scott (railroad historian), December 11, 2015.

<sup>&</sup>lt;sup>3</sup> The story of the Stevens family's involvement with the early development of rail transportation has been told in many places. The classic work of New Jersey railroad history is Wheaton J. Lane, *From Indian Trail to Iron Horse: Travel and Transportation in New Jersey, 1620-1860* (Princeton, NJ: Princeton University Press, 1939). Also see Anthony J. Bianculli, *Trains and Technology: the American Railroad in the Nineteenth Century*, vol.3, "Tracks and Structures" (Newark, DE: University of Delaware Press, 2003), esp. vol.3, "Track and Structures." The most recent popular treatment is John T. Cunningham, *Railroads in New Jersey: The Formative Years*. (Florham Park, NJ: Afton Publishing Co., 1997).

<sup>&</sup>lt;sup>4</sup> See the treatment in Lane, From Indian Trail to Iron Horse.

Section number 8 Page 3

railroad between the Delaware River near the Cooper River, at the site of Camden, New Jersey, and some point on the Raritan Bay. The Camden & Amboy Railroad and Transportation Company was also allowed to run steamboats at both ends to connect with the trains and the cities of Philadelphia and New York City.<sup>7</sup> The steamboats in New York Harbor and the Delaware River were Stevens' properties. A year later, the legislature merged the two companies, creating what became known in New Jersey as the "Joint Companies."

The contract allowed for capital stock of one million dollars to be divided into shares of one hundred dollars each, and if necessary, increased to one and one-half million dollars. One-fourth of the stock was to be held for a year at the option of the state which reserved the right to purchase the property at fair appraisal thirty years after completion. Rates were not to exceed ten cents per mile for a passenger or eight cents per ton of freight per mile and quarterly reports on both kinds of traffic were to be made to the New Jersey State Treasurer. In lieu of taxes, the company was to pay a transit duty of ten cents for each passenger and fifteen cents for each ton of freight carried over its line. Also included were provisions, for example, that the company would give the State one thousand shares of stock outright. In return for these sweeteners, it was agreed that no other railroad could be authorized to engage in the transportation across the state between New York City and Philadelphia for a period of thirty years (the "Monopoly") and that no other railroad could exist within five miles. With excitingly strong profit prospects, the one million-dollar capital stock of the Camden & Amboy was subscribed for in less than one day.

# Building the railroad through Hightstown (1830 – 1832)

Hightstown before the arrival of the railroad was a small mill village, not greatly enlarged from its eighteenthcentury appearance. The village had begun as a gristmill seat developed on the north side of Rocky Brook by John Hight in 1747-49, followed by two taverns that were constructed in the 1750s and a third that was in existence by 1780. In the 1750s and '60s, several mechanic's shops including a blacksmith shop and a cooper shop were opened, a store was associated with the mill, a large house was built for the mill owner, and a sawmill was built on the south side of Rocky Brook, opposite the gristmill. Some evidence suggests the presence of a tannery before the Revolutionary War. These enterprises were spread along what is today Main Street, North Main, and South Main streets in the space encompassed today by Hightstown Borough's downtown area. What is today Stockton Street in Hightstown had its origins in the early eighteenth century as an informal road that led along a still older survey line, but veered off and continued into the eastern half of what is today West Windsor Township. It was afterward formally surveyed in 1759 as a road leading to the mill site that later became Grover's Mill in West Windsor Township.<sup>5</sup>

After the Revolutionary War, Hightstown witnessed a few significant changes. The gristmill was rebuilt on the same site in 1786-87. Stockton Street gradually emerged as a residential street in the last fifteen years of the century and as the nineteenth century began. In 1785 the Cranberry<sup>6</sup> Baptist Church decided to relocate to Hightstown, and built a new meetinghouse on rising ground to the south of the millpond. The change that was most consequential for the railroad occurred in 1816, when the New Jersey legislature enacted an incorporation act for the Bordentown and South Amboy Turnpike Company, which proceeded in the next two years to survey

<sup>&</sup>lt;sup>5</sup> For those who think of "Grover's Mill, New Jersey" only with respect to Orson Welles' "War of the World's" radio broadcast, yes, this is the same Grover's Mill, a real place that, too, had its origin as an 18<sup>th</sup>-century millseat.

<sup>&</sup>lt;sup>6</sup> Today spelled "Cranbury." The change in spelling took place in the latter half of the nineteenth century.

Section number 8 Page 4

and construct a road that included a straight segment leading from the middle of what became Centreville (today the village of Windsor) in Robbinsville Township (then part of East Windsor) to Hightstown.<sup>7</sup> This became an important commercial road in Hightstown and is known today as Mercer Street. The presence of the turnpike would apparently become a convenience for the railroad builders, whose own route would hug that of the turnpike for most of the distance between Bordentown and Hightstown.

Progress on the Camden & Amboy line went forward while the legislative issues were still being worked out. During the summer of 1830, surveys were made under the direction of Major John Wilson of the United States Army. The route was divided into two sections, one between South Amboy and Crosswicks Creek, above Bordentown, the other from Crosswicks Creek to Camden. Major Wilson was assisted by Lieutenant William S. Cook (1801-1865), having charge of the section from South Amboy to Crosswicks Creek (including Hightstown), and John Edgar Thompson, in charge from Crosswicks Creek to Camden.<sup>8</sup> Although alternative routes were considered, the level coastal plain along the eastern part of the state led the surveyors to lay out the line with relative straightness between Bordentown and South Amboy, through Hightstown, Jamesburg, and Old Bridge, the same logic that had proven decisive for the turnpike.<sup>9</sup> Lieutenant Cook, a West Point graduate in the Class of 1822 where he learned his engineering, had been born in Hightstown and thus was familiar with the Hightstown area. (It is unclear whether Cook was chosen for his familiarity with the terrain through Middlesex County, nor whether surveying the route through Hightstown was his decision.) He was a son of James Cook (1775-1849) who came to Hightstown shortly before his son's birth.<sup>10</sup> James Cook had been involved with the Bordentown and South Amboy Turnpike Company. Lieutenant Cook was appointed Engineer in Chief of the Camden & Amboy Railroad, first in 1831 while the construction of the line was underway, and reappointed in 1836, serving until his death in 1865.<sup>11</sup>

The turnpike was reluctant to embrace the railroad. In 1827 it had authorized one of its directors, William McKnight, a principal property owner in what would become Centreville, to inquire of the legislature whether it would be possible to obtain a railroad charter for the turnpike.<sup>12</sup> Although nothing came of that effort, it was a sign that the turnpike company was justifiably concerned about having a railroad as a competitor. Right-of-way acquisition through the Hightstown-East Windsor area began at the beginning of 1831 (though negotiations may have begun earlier, during the surveying). Deeds for the Company's purchase of right-of-way land occupy most of volume 25 of Middlesex<sup>13</sup> County deeds in the county clerk's office—dozens of transactions—and those that were purchases of land in East Windsor (including Hightstown) bear dates from early January 1831 through the

<sup>&</sup>lt;sup>7</sup> It is unclear whether James Cook influenced the surveyors in their selection of the route, but the center line of the turnpike road from Centreville lines up almost perfectly with where the chimney of Cook's house was located in the early 19<sup>th</sup> century, on the east side of the present Main Street in downtown Hightstown. Under the circumstances, this hardly seems like a remarkable coincidence.

<sup>&</sup>lt;sup>8</sup> J. Elfreth Watkins, *The Camden & Amboy Railroad, Origin and Early History...* (Washington, DC: 1892): 22; Lee, Francis Bazley. "The Early Railroads" from *New Jersey as a Colony and a State* (Publishing Society of New Jersey, New York, 1902) accessed

January 25, 2008, www.catskillarchive.com/rrextra/abnjrr.html

<sup>&</sup>lt;sup>9</sup> Lane, 286.

<sup>&</sup>lt;sup>10</sup> James Cook may have been a locally influential figure within the Jeffersonian Republican party and an ally of such figures as Jonathan Rhea, the clerk of the NJ Supreme Court.

<sup>&</sup>lt;sup>11</sup> PRR Chronology 1831. June 2004 Edition. (The Pennsylvania Railroad Technical & Historical Society. Accessed June 15, 2011).

<sup>&</sup>lt;sup>12</sup> Records of the Bordentown & South Amboy Turnpike Company [B&SATC], NJ State Archives, Trenton, NJ.

<sup>&</sup>lt;sup>13</sup> Mercer County was not created by the legislature until 1838.

Section number 8 Page 5

early part of July that year.<sup>14</sup> As construction advanced toward Hightstown that summer, concerns about the impact that a steam locomotive would have apparently intensified. The turnpike company circulated a petition in November 1831 that the Camden & Amboy Railroad not be permitted to use steam engines on its rail line due to concerns for fire safety and for the reactions of horses to the noise of the locomotive.<sup>15</sup> The turnpike company did not finally give in until September 1832 when it received a payment of 800 dollars from the Camden & Amboy, just before regular service was to begin, for the right to cross the turnpike's right-of-way, which it needed to do at Hightstown and in at least one other location near Bordentown.

The progress of construction, under Lieutenant Cook's management, proceeded through the latter half of 1831 and the first several months of 1832. One local resident, Gertrude Maxwell, in writing a memoir nearly a century after these events, described remembering what she had been told by her older relatives. She described the track construction process in which "an ugly furrow was cut through the eastern end of my grandfather's farm [just north of Hightstown] and the woodland to the north." As compensation, her grandfather was given a pass to New York City written on a piece of paper and signed by Edwin A. Stevens of Hoboken.<sup>16</sup> In 1838, the *American Railroad Journal and Mechanics' Magazine* reported that "The foundation of this road is formed by two continuous trenches, three feet in width, and one foot in depth, being filled with broken stone; over these trenches a roller, weighing three tons, was passed a number of times until the whole was a solid mass." The magazine went on to describe the stone "blocks" as two feet square, 10 to 13 inches deep, and set at intervals of 3.2 feet on center in each trench. Although it made reference to locust "chairs" as a device by which the rails were secured, it was almost certainly that locust plates were used instead, and these only when and where needed (see Section 7).

In Hightstown, at least, the crossing of the turnpike would be over a bridge, not at grade. In discussing the railroad in 1834, Thomas F. Gordon in his *Gazetteer* spoke of the rail track going "over" Hightstown, rather than through it.<sup>17</sup> A local woman, Eliza P. McChesney, drew a pencil drawing of downtown Hightstown in 1834 that shows the Main Street bridge in the background, topped by a locomotive and cars.<sup>18</sup> The bridge was also shown in another drawing of downtown Hightstown, from 1840.<sup>19</sup> The topography of Hightstown, together with the alignment of the turnpike (Mercer Street), meant that the railroad was pushed about 100 yards to the west as it entered the village from the south. This enabled it to skirt a low, swampy area between itself and the turnpike, but it also meant that it would need to build bridges over what became Stockton Street and North Main Street to maintain a grade that would be sufficiently level for the locomotive to manage while under load. This, in turn, required that an earthen ramp be constructed as the southern approach to these bridges, and the nominated property occupies the very southern edge of this earthen embankment.<sup>20</sup>

<sup>&</sup>lt;sup>14</sup> The deeds were all recorded together in September 1832, shortly before the railroad began regular operation through Hightstown. Right-of-way acquisition through the other affected municipalities in Middlesex County was ongoing during the same months.

<sup>&</sup>lt;sup>15</sup> B&SATC records.

<sup>&</sup>lt;sup>16</sup> Gertrude Maxwell. *My First Decade*. (privately printed, 1930). copy in Gertrude Maxwell Collection, HEWHS.

<sup>&</sup>lt;sup>17</sup> Thomas F. Gordon, A Gazetteer of the State of New Jersey (Trenton, NJ: Daniel Fenton, 1834): <u>157.</u>

<sup>&</sup>lt;sup>18</sup> Eliza P. McChesney, Hightstown, 1834, original pencil drawing, HEWHS.

<sup>&</sup>lt;sup>19</sup> Both drawings are reproduced in Hightstown, New Jersey [Bird's-eye view],1895, copy at Hightstown Public Library.

<sup>&</sup>lt;sup>20</sup> Portions of this ramp to the north of the nominated property were removed during re-landscaping in 1984, after rail service was discontinued, as discussed later in the narrative. Rogers Avenue in Hightstown, which abuts the nominated property to the south, appears to have its origin in the construction of the railroad and to mark the southern end of the ramp. Its function evidently was to serve as a temporary substitute for portions of lower Stockton Street that traffic must have needed to avoid during the construction of

# **Continuation Sheet**

Section number 8 Page 6

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

The section of track from Bordentown to Hightstown was underway during the summer of 1832, when public attention was drawn to the spread of a raging cholera epidemic. On July 12<sup>th</sup>, Charles G. McChesney of Hightstown wrote to the editor of the New Jersey State Gazette in Trenton of a case of the disease brought to Hightstown by a man who had hiked there from New Brunswick. From the onset of symptoms, he died in five hours. After stressing in his letter the importance of cleanliness in fighting the disease, McChesney reported that this death "has occurred among the laborers on the Rail-Road along which there are many places extremely filthy."<sup>21</sup> The track was evidently completed to Hightstown by the middle of September 1832, because the first train with passengers was run according to some sources on September 19<sup>th, 22</sup> The date of commencement of regular service is somewhat at issue; the New Jersey State Gazette reported on October 6th that service between the two towns had started on October 1<sup>st</sup>.<sup>23</sup> The company was still not ready to transport passengers or freight by steam, so the inaugural run to Hightstown was conducted under horse power, "drawn by 2 horses in tandem harness."<sup>24</sup> It also reported that "The Cars are very handsome vehicles and capable of carrying 30 passengers. They glide in fine style rapidly along the rails." Meanwhile, construction of the northern half of the line proceeded faster than the southern half, evidently because the last several miles were built with wooden crossties rather than stone blocks.<sup>25</sup> The need to finish the work before the ground froze was evidently a consideration. New Jersey governor Peter D. Vroom reported in his annual message to the legislature that "it is confidently expected that the line will be completed to Amboy before the setting in of the winter."<sup>26</sup> The paper reported on November 24<sup>th</sup> that the line to Amboy was expected to be completed in another two weeks.<sup>27</sup> The switch to wooden crossties evidently was the missing piece that permitted through service to South Amboy to begin on December 17, 1832, again, under horse power.<sup>28</sup> The trip from Bordentown to the Raritan Bay, a length of thirty-four miles, took two and one-half hours, with fresh horses staged at intervals along the route. Finally in September 1833 the steam-powered John Bull locomotive began drawing cars from Bordentown at 7:00 in the morning and returning from South Amboy at 4:00 in the afternoon. By January 1834, the railroad track was extended to Camden, also using crossties, completing the 61.5-mile route from South Amboy to Camden.

Physical evidence from the Hightstown right-of-way site reveals much of the struggle and the technological challenge to build the line. The first challenge was to source a sufficient quantity of stone blocks to complete even the line from Bordentown to South Amboy, approximately 34 miles. At the interval to which the blocks were laid, 3.2 feet on center, five blocks were used to support a single 16-foot rail. A mile of track thus required 3,330 blocks, and the distance to South Amboy required well over one hundred thousand. As early as 1830, the company began to advertise for quarries to submit proposals for the supply of stone blocks, in lots of

the bridge over Stockton Street. Rogers Avenue appears in the first commercially published map of Hightstown in 1849, but there is no record of its existence that predates the railroad.

<sup>&</sup>lt;sup>21</sup> New Jersey State Gazette, July 14, 1832.

<sup>&</sup>lt;sup>22</sup> Lane, 284-292.

<sup>&</sup>lt;sup>23</sup> New Jersey State Gazette, October 6, 1832.

<sup>&</sup>lt;sup>24</sup> Ibid.

<sup>&</sup>lt;sup>25</sup> Cf. Cunningham, 40, which describes a "seven-mile stretch" constructed in this manner, with Watkins reporting that slightly less than 27 of the 34 miles between Bordentown and South Amboy were covered with stone sleepers.

<sup>&</sup>lt;sup>26</sup> *New Jersey State Gazette*, November 3, 1832.

<sup>&</sup>lt;sup>27</sup> Ibid., November 24, 1832.

<sup>&</sup>lt;sup>28</sup> Watkins, Camden & Amboy Railroad, 42.

Section number 8 Page 7

no fewer than two thousand blocks. Although it has been long known that the Camden & Amboy bought blocks quarried by prisoners at the Sing Sing Prison in Ossining, New York, it is less well known that production difficulties there limited the blocks from that source to only a small fraction of the number that the Camden & Amboy needed.<sup>29</sup> Most of the railway blocks that the company used came from other sources. Geologist Pierre Lacombe of the United States Geological Survey has recently conducted a study of the stones used by the Camden & Amboy, identifying them by type and seeking their sources. He has found that the stones used at Hightstown did not come from Sing Sing, but rather from more local sources (see Section 7). The Hightstown stones were, quoting from Section 7, "an iron oxide cemented conglomerate of Beacon Hill Gravel that outcrops about six miles southeast of Hightstown," near Perrineville, in the vicinity of which Lacombe has found a number of small quarries from whence rock of this type was taken. The date of the placement of the railway blocks in Hightstown in the summer of 1832 coincides with a time in which the Sing Sing Prison quarry was having great difficulty meeting production schedules, in part due to the cholera epidemic.<sup>30</sup>

The challenges extended to maintaining the track once it had been completed. Contrary to the suggestions in some written sources, the Camden & Amboy line did not employ "chairs" for the attachment of rails to the stone blocks, but instead placed small plates under the rail, chiefly of wood, probably locust. Chairs were vertical components, usually of cast iron, used to keep a rail upright that would otherwise fall upon its side. Lacombe found ample evidence for the use, size, and placement of these plates in the markings on the stones, but no evidence for the use of chairs. Indeed, Robert Stevens wished to avoid the need to use chairs, which would have been expensive to manufacture or import, and subsequently to maintain. He therefore designed his rail to have a wide base, that it could be installed with spikes and plates only.

# The Railroad's Impact on New Jersey

Gertrude Maxwell stated that her mother valued the advent of the railroad and steamboat because she then could visit her brother in New York City "without lying over in the sailboat if the wind was contrary, or the boat becalmed." Maxwell's mother told her that what had once taken days to make the trip by horse and carriage, only took hours to travel the same route by train (and steamboat).<sup>31</sup> The railroad revolutionized the speed with which the trip between New York City and Philadelphia could be accomplished. A person leaving one city early in the morning could expect to be doing business in the other by the afternoon. No longer would a round-trip journey between them necessarily be a two-day affair. The railroad was instantly popular. In the first year it reported carrying 110,000 passengers.<sup>32</sup> The *State Gazette* reported that "The two cities will almost be brought within speaking distance of each other."<sup>33</sup>

The historian Michael Birkner, in assessing New Jersey in the generation before 1850, observed that "No corporation was more powerful—or more reviled--... than the so-called Joint Companies, the combined Camden and Amboy Railroad and Delaware and Raritan Canal." The Joint Companies' transit duties "funded virtually the entire State budget" during the decades of the monopoly, making it easier for legislators to "defend

<sup>&</sup>lt;sup>29</sup> An audit for the New York State government concluded that Sing Sing shipped about 31 thousand railway blocks to the Camden & Amboy. *Documents of the Senate of the State of New York, Sixty-Seventh Session*, vol.1 (Albany, NY: E.Mack, 1844): 49.

<sup>&</sup>lt;sup>30</sup> Williams, Edwin. *The New-York Annual Register for the Year of our Lord 1833* (New York: Peter Hill, 1833) <u>274.</u>

<sup>&</sup>lt;sup>31</sup> Maxwell, *My First Decade*.

<sup>&</sup>lt;sup>32</sup> Lane, 284-292.

<sup>&</sup>lt;sup>33</sup> New Jersey State Gazette, November 24, 1832.

Section number	8	Page	8	

their monopoly privilege."<sup>34</sup> Lane's account remains the best examination of the political struggles of the company to defend its monopoly privilege, and the consequent cost to the State's reputation.<sup>35</sup>

# The Railroad's Impact on Hightstown

The coming of the railroad was the event that had the greatest impact on Hightstown in the nineteenth century. The effect was dramatic. transforming a quiet village that had been overshadowed by Cranberry and Allentown since the eighteenth century into a railroad town that was an economic, cultural, and political hub for an area covering parts of Mercer, Middlesex, and Monmouth counties. Former newspaper editor Jacob Stults, writing in 1900, observed that with the arrival of the railroad, Hightstown began to grow and soon it became a dangerous business rival to the older settlements, and in proportion to the rate at which Hightstown 'lengthened her cords and strengthened her stakes,' the older towns who were 'agin' railroads and could get along without them, began to shorten their lines and take up their stakes."<sup>36</sup>

Missing from that recitation were the buildings that the railroad, itself, occupied. The C&A issued a detailed report in 1840 describing its lines and its physical plant, and it occupied several buildings in Hightstown. It reported the use of "one small house" as a "transportation house," possibly a freight office. This may have been an older house built by a George Bergen in 1785<sup>37</sup> along Stockton Street near the house<sup>38</sup> that Rescarrick M.Smith (1802-1865) later owned. Smith, at that time a young merchant in the town, became a local agent for the Camden & Amboy, securing the supply of firewood, for example, needed for the locomotives.<sup>39</sup> The railroad also occupied a "brick car house, forty feet long, twenty-two and a half feet wide, with two tracks." It maintained a passenger office, "57 feet by 12 feet," a footprint that almost certainly means that it was constructed by the railroad for its own use. It also maintained a "water tank at Hightstown, with a force pump, and fixtures."<sup>40</sup> The water tank was located alongside Stockton Street and was very elevated. A local man, David Van Marter, filled the locomotive's water tank every day.<sup>41</sup> The railroad apparently channelized Grape Run, piping it underground to its discharge in Rocky Brook, enabling it to fill what had been swampy ground between itself and the turnpike (Mercer Street), and use at least a portion of it for railroad purposes, including placing the freight house there and storing firewood.<sup>42</sup>

<sup>&</sup>lt;sup>34</sup> Michael J. Birkner, "New Jersey in the Jacksonian Era, 1820-1850," in Maxine N. Lurie and Richard Veit eds. *New Jersey: A History of the Garden State* (New Brunswick, NJ: Rutgers University Press, 2012):128-129.

<sup>&</sup>lt;sup>35</sup> Lane, Indian Trail to Iron Horse.

<sup>&</sup>lt;sup>36</sup> Jacob Stults, "Hightstown One Hundred Years Ago," *Hightstown Gazette*, December 6, 1900.

<sup>&</sup>lt;sup>37</sup> *Hightstown Gazette*. September 12 1867.

<sup>&</sup>lt;sup>38</sup> The "Smith house" at 137 Stockton Street. The "transportation house" would have stood a short distance to the east, nearer where Railroad Avenue later intersected Stockton Street, on or near the site of the Camden & Amboy Railroad passenger station that was built in 1867 to replace it.

<sup>&</sup>lt;sup>39</sup> R.M. Smith kept an account book that detailed his work for the railroad in the 1830s. A portion of this book has been preserved in the R.M. Smith Papers, at the Special Collections and University Archives Division, Rutgers University Library, New Brunswick, NJ. Another portion of the same account book has separately found its way into the A.H. Albert Collection at HEWHS. (Smith is best remembered for having been the New Jersey State Treasurer during the Civil War.)

<sup>&</sup>lt;sup>40</sup> Report of the Joint Board of Directors, to the Stockholders of the Delaware and Raritan Canal, and Camden and Amboy Rail Road and Transportation Companies, on the Completion of their Works (Princeton, Robert E. Hornor, 1840): 31, 34. Also John W. Orr, Jr. Reflections from the Shrine: An Anecdotal History of Hightstown and East Windsor (Hightstown, NJ: Longstreet House, 1998): 171.

<sup>&</sup>lt;sup>41</sup> Orr, *Reflections from the Shrine*, 171.

<sup>&</sup>lt;sup>42</sup> Ibid.

Section number 8 Page 9

Soon after the arrival of the railroad, it became apparent that the train had difficulty making it up Cedar Hill, southwest of the village. Its wood-burning steam engine was not strong enough to consistently pull a full load of cars from a standstill to the top of the hill, and it often failed. A southbound engine had to back up to a point northeast of the Rocky Brook bridge to get up enough momentum to climb Cedar Hill. The problem was solved when the grade through Cedar Hill was lowered.

Hightstown at once began to attract more commercial activity. Both sides of Main Street began to be closely packed with additional stores, such that by the 1840s it was recognizable as a commercial downtown. Two new churches emerged in Hightstown in the 1830s: the Universalists and the Methodists. Its first fire engine was procured in 1835, and Monmouth Street was laid out in 1836, Hightstown's first formal subdivision. A new and larger public school, sometimes referred to as an academy, was built along Mercer Street in 1841. Residential construction spread further up Stockton Street. A local weekly newspaper, the *Village Record*, was launched in 1849, made feasible because its circulation area was expanded by the railroad.

The impact on Hightstown's population was the effect that has been most remembered. In 1830 Hightstown had perhaps 100 residents. Already by 1834, Gordon's *Gazetteer* of the State described Hightstown as a town containing three taverns, two stores, a gristmill, a sawmill, and thirty to forty dwellings.<sup>43</sup> Only eight years later, in 1842, Hightstown had eighty to one hundred homes and five hundred residents. Between 1830 and 1870, Hightstown's population increased thirteen-fold.<sup>44</sup> The transformative effect of the railroad had been so complete that in the 1890s, when Hightstown undertook to reflect back upon its own history, it had become a difficult exercise for the old-timers to recall what the village had been like in 1830, before the first train whistle.

# **Rebuilding the Railroad in Hightstown (1853–1855):**

Hightstown successfully petitioned the state legislature to become a borough, an honor that was realized on March 5, 1853 with Hightstown's incorporation act. This charter gave Hightstown a governing structure and a taxing ability to permit it to focus on physical improvements to the town. In addition to the upgrading of street lights and sidewalks, the Borough also took aim at the Railroad. Only a week later, in the same March 11, 1853 issue that announced the first Borough meeting and election of mayor and council members, the *Village Record* editor James S.Yard described a bill that had just been adopted by the legislature to charter a short-line railroad between Hightstown and New Egypt. He wrote:

To the citizens of Hightstown, it particularly commends itself. The farmers on the route will bring their produce to our enterprising dealers, and business of every kind will flourish. Our first business will be to "set our house in order," by rendering our village a more desirable place of residence, to which result our charter, under the control of public, spirited men, will speedily bring us; for the rest, our merchants and mechanics will be responsible. If they take the proper course, complete success will crown the effort.<sup>22</sup>

Yard continued a campaign in the newspaper to urge the Camden & Amboy to take measures to upgrade the railroad. In the April 22, 1853 issue, he complained of the railroad bridges, that they were getting "old and

<sup>&</sup>lt;sup>43</sup> Gordon, Thomas Francis. A Gazetteer of the State of New Jersey (Trenton: Daniel Fenton.1834), 157.

<sup>&</sup>lt;sup>44</sup> At the time of the 1870 census, Hightstown had an estimated population of about 1300.

Section number 8 Page 10

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

dangerous, and we presume the Company will soon have to put up new ones." He urged a regrading that would enable the removal of the Stockton Street bridge altogether.

Little more than 18 months later, on November 8, 1854, the *Village Record* reported:

The Camden and Amboy Railroad Company have been making some important improvements at that place. The old bridges over Stockton and Broad Street have been removed, and their places supplied with newer ones, built in a neat and substantial manner. They are also raised some feet higher over the roads, thus giving ample room for loaded wagons, which was not the case with the old ones. The track has been re-laid, and the switches changed, from the old position on the bridge, which is a much better arrangement. These improvements have been long needed, and we are glad to be able to record the fact that they have been made  $^{45}$ 

By March 2, 1855, the *Village Record* could finally report the good news that "We have new bridges and better ones for the railroad and a new, safe and convenient bridge over the creek.<sup>46</sup> It was apparently this action by the Camden & Amboy, the construction of the new bridges that were some feet higher than their predecessors, that resulted in the burial of the original road bed at the site of the nominated property. The period of significance of this property thus ends with this action.

# 1855 to the present:

After the end of the period of significance, railroad use of the original right-of-way continued for more than 125 additional years. The original freight station was located on Rogers Avenue. In 1855, a new freight station was built in the vicinity of the current post office. Soon it became too small to handle the large amount of activity generated by all the freight shipped in and out of Hightstown, especially when the Pemberton & Hightstown Railroad, formerly the New Egypt and Hightstown Railroad, opened on February 6, 1868. In October 1869, a second new freight station was completed on the south side of Rogers Avenue. The trackage through Hightstown became part of the Pennsylvania Railroad colossus when the Camden & Amboy leased all of its assets to the "foreign" railroad. During the heyday of the railroad, through the first two decades of the 20<sup>th</sup> century, the Hightstown Depot continued to be a busy place. In 1915, the schedule listed sixteen trains to New York City and Philadelphia from 6:30 am to 7:20 pm. There were also trains to Pemberton and New Egypt. But eventually, the invention of automobiles, trucks, and airplanes took its toll on the railroad industry in New Jersey. In 1938, because of waning passenger interest, railroad officials announced that passenger service would be stopped and a gasoline driven motor coach would be operated between Jamesburg and Trenton once a day.<sup>47</sup> In 1939, passenger service ended after the Pennsylvania Railroad made one last excursion trip to the New York World's Fair.

Freight service greatly diminished after the 1950s. Finally, in April 1982, the Conrail Corporation officially gave the Borough of Hightstown notice of its intention to abandon the railroad. Officials for Conrail informed the Borough that they would leave the wooden ties in place but would remove the rails at no cost to the community. Conrail left it up to the borough to decide what to do with the narrow right-of-way. This came as no surprise to the community, with the decline of freight customers. "It was fairly common knowledge that the

<sup>&</sup>lt;sup>45</sup> *Village Record*. November 8, 1854.

<sup>&</sup>lt;sup>46</sup> Ibid., March 2, 1855.

<sup>&</sup>lt;sup>47</sup> "Gasoline Driven Motor Coach Will Replace Trains," (Trenton, NJ: Trenton Times, September, 22, 1938).

Section number 8 Page 11

railroad was going to stop its service," recalled then-mayor Richard Aughenbaugh, who said he remembered watching the freight trains go by from his Mercer Street store. "We would notice there were no trains going by for a few weeks, and think, well it must be really abandoned now. Then, in the middle of the night, we'd hear the whistle go off. That went on for quite a while." In July 1983, the trestle bridge over North Main Street in Hightstown was removed and, next, the overpass above Stockton Street was taken down.<sup>48</sup>

On May 29, 1984, the Borough of Hightstown Council authorized the then mayor to sign a contract with Consolidated Rail Corporation (Conrail) to purchase portions of the right of way of the original Camden & Amboy Railroad, amounting to eight acres for \$94,500.00.<sup>49</sup> The plan was that after the borough purchased the right of way, it would sell to anyone interested in buying certain parcels that abutted their property or to other parties interested in buying.<sup>50</sup> The mayor cited plans to use the property to build a municipal parking lot downtown, to benefit the struggling retail merchants there, whose properties did not have sufficient space for parking. To ease that situation, however, the railroad embankment would need to be replaced, which in any case was no longer needed with the removal of the bridges.<sup>51</sup>

According to Lawrence Blake, former Hightstown Borough Supervisor of Public Works, who was present at the excavation of the sleeper stones in 1984, the leveling of the railroad embankment was carried out as part of an effort to clean up parts of the right-of-way area. Following the abandonment and subsequent purchase of the right of way properties by the borough, they had become overgrown and littered. George Bradford, a local contractor, was hired by the Borough of Hightstown to level the railroad embankment, and in the process of carrying out his job, uncovered the sleepers where they had remained since 1832.<sup>52</sup> Some members of the local historical society had predicted that a segment of the original roadbed would be found *in situ* when the embankment was removed, and when that happened, the society realized that an important discovery had been made. Further removal of the earthen embankment was temporarily halted. Stone sleepers that had already been incidentally encountered before it was realized that an intact site was being dismantled were stockpiled for eventual relocation.

The importance of the find was underscored in the fall of 1984 when historians from the Smithsonian Institution visited Hightstown to inspect the site and negotiate the acquisition of a portion of it. Afterward, it was agreed that Hightstown Borough would donate eighteen sleeper stones to the Smithsonian to accompany their Transportation Museum's centerpiece, the original *John Bull* steam locomotive. These were taken from the line just to the north of the nominated property. Both the portion to be removed and the remaining *in situ* site were carefully surveyed, and a detailed plan of the site was prepared. In December 1984 the Smithsonian sent a crew with a truck and removed the eighteen stones.<sup>53</sup>

<sup>&</sup>lt;sup>48</sup> Rehbarger, Camille. "All Aboard! Hightstown's Railroads as they were then and...as they are now." *Windsor-Hights Herald* [weekly newspaper], August 4, 1983).

<sup>&</sup>lt;sup>49</sup> Borough of Hightstown Records, "Resolution 650." Hightstown Borough, 1984.

<sup>&</sup>lt;sup>50</sup> Windsor-Hights Herald. September 1, 1983.

<sup>&</sup>lt;sup>51</sup> Windsor-Hights Herald. May 24, 1984.

 <sup>&</sup>lt;sup>52</sup> Lawrence Blake, Superintendent of Public Works, Hightstown Borough, NJ. Interviewed by Katherine Patten, August 15, 2008.
 <sup>53</sup> Feldstein, Judith. "Hightstown sends a bit of rail history to museum," *Trenton Times*. Dec. 7, 1984. The story had its epilogue in January 1985, when William Withuhn, the Curator of Transportation of the Smithsonian's National Museum of American History, was the featured speaker at the annual banquet of the Hightstown-East Windsor Historical Society. Dennis, Kathryn. "Railroad Stones are History." *Hightstown Gazette*, January 31, 1985.

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

Section number 9 Page 1

# **Major Bibliographic References**

# Books

- Barber, John W. and Howe, Henry. *Historical Collections of New Jersey: Past and Present*, 1844 and revised editions. Reprint by The Reprint Company. Spartanburg, SC. 1975.
- Bianculli, Anthony J. *Trains and Technology: The American Railroad in the Nineteenth Century*. vol.3 "Track and Structures." Newark, DE: University of Delaware Press, 2003.
- Cunningham, John T. *The Railroad in New Jersey: The Formative Years*, New Brunswick, NJ. Rutgers University Press. 1978.
- Documents of the Senate of the State of New York, Sixty-Seventh Session, 1844. vol.1. Albany, NY: E. Mack, 1844.
- Gordon, Thomas Francis. A Gazetteer of the State of New Jersey a General View of Its Physical and Moral Condition, Together with a Topographical and Statistical Account of its Counties, Towns, Villages, Canals, Railroads, etc. Trenton: Published by Daniel Fenton.1834.
- Karcher, Alan, J. Multiple Municipal Madness, New Brunswick, NJ: Rutgers University Press. 1998.
- Knight, J. (chief engineer). *Report Upon the Plan of Construction of Several of the Principal Rail Roads in the Northern and Middle States, and upon a Railway Structure for a new Track on the Baltimore and Ohio Railroad.* Baltimore: Lucas & Deaver, 1838.
- Lane, Wheaton, J. From Indian Trail to Iron Horse: Travel and Transportation in New Jersey, 1620-1860, Princeton NJ: Princeton University Press, 1939.
- Lee, Francis Bazley. "The Early Railroads," from *New Jersey as a Colony and as a State*, Publishing Society of New Jersey. New York. 1902.
- Lurie, Maxine N. and Richard Veit, *New Jersey: A History of the Garden State*. New Brunswick, NJ: Rutgers University Press, 2012.
- Maxwell, Gertrude. *My First Decade*. privately printed. 1930. copy at Hightstown-East Windsor Historical Society, Hightstown, NJ.
- Orr, John W., Jr.. *Reflections from the Shrine: An Anecdotal History of Hightstown and East Windsor.* Hightstown, NJ: Longstreet House, September 1998.
- PRR Chronology 1831. Pennsylvania Railroad. 2004 edition.
- Raidabaugh, G.P. Origin and Development of the Railway Rail, English and American Wood, Iron and Steel. Baltimore, Maryland: The Pennsylvania Steel Co. and Maryland Steel Co., Kohn & Pollock, Inc. 1915.
- Report of the Joint Board of Directors, to the Stockholders of the Delaware and Raritan Canal, and Camden and Amboy Railroad and Transportation Companies, on the Completion of their Works; with the Proceedings of the Stockholders At their Meeting on the 29<sup>th</sup> of January, 1840. Princeton, NJ: Robert E. Hornor, 1840.
- von Gertsner, Franz Anton Ritter. *Early American Railroads "Die innem Communicationen." 1842-1843.* 1839 Construction Drawings. Transcribed from "Early American Railroads." Redwood City, CA: Stanford University Press. 1997.
- Watkins, J. Elfrith. The Camden & Amboy Railroad, Origin and Early History. Address delivered at Bordentown, NJ, November 12, 1891, upon the completion of the monument erected by the Pennsylvania Railroad Company to mark the first Piece of Track Laid between New York and Philadlephia ... November 12, 1831. Washington, DC: Gedney & Roberts, 1892.

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

Section number 9 Page 2

Watkins, J. Elfrith. "Development of the American Rail and Track." in *Transactions of the American Society of Civil Engineers*. (April 1890): 218-230.

Williams, Edwin. The New-York Annual Register for the Year of our Lord 1833. New York: Peter Hill, 1833.

# **Periodicals and Newspapers**

American Railroad Journal and Mechanics Magazine. New York: Minor, D.K. and Schaeffer, G.C. 1838.
Hightstown-East Windsor Historical Society Newsletter. 1971-present. copies at HEWHS.
Hightstown Gazette. [Hightstown weekly newspaper]. 1861-2005. microfilm.
New Jersey State Gazette. 1830-36. microfilm copy. New Jersey State Library, Trenton, NJ.
Trenton Times. [daily newspaper]. 1883-present. microfilm.
Village Record. [Hightstown weekly newspaper]. 1849-1861. microfilm.
Windsor-Hights Herald. [Hightstown-East Windsor weekly newspaper]. 1965-. microfilm.

# **Interviews and Personal Communications**

Lawrence Blake, Superintendent of Public Works, Hightstown Borough, NJ. Interviewed by Katherine Patten, August 15, 2008.

Lacombe, Pierre. Geologist, U.S. Geological Survey, Lawrenceville, NJ. Excavator of the Camden & Amboy Railroad Right-of-Way Site on June, 10 201 and photographer and illustrator for this application.

Scott, Caroline. personal communication, December 11, 2015.

Withuhn, William and Tolbert, Susan. Curators, Smithsonian Institution, National Museum of American History, Division of Transportation, Washington, D.C.

# **Maps and Other**

Borough of Hightstown. "Resolution #650." Hightstown, NJ. 1984.

- Maps of the Camden & Amboy Railroad Right-of-Way Site in Hightstown, NJ. 1984. On file at the Hightstown-East Windsor Historical Society, Hightstown, NJ.
- Eliza P. McChesney. Pencil drawing of Hightstown, 1834. original drawing, HEWHS.
- Records of the Bordentown and South Amboy Turnpike Company, 1816-ca.1833, New Jersey State Archives, Trenton, NJ.

Hightstown, NJ. [bird's-eye view], 1895. copy at Hightstown Public Library, Hightstown, NJ.

R.M. Smith papers. Division of Special Collections and University Archives. Rutgers University Library. New Brunswick, NJ.

Section number 10 Page 1

# **Geographic Data**

## **Verbal Boundary Description:**

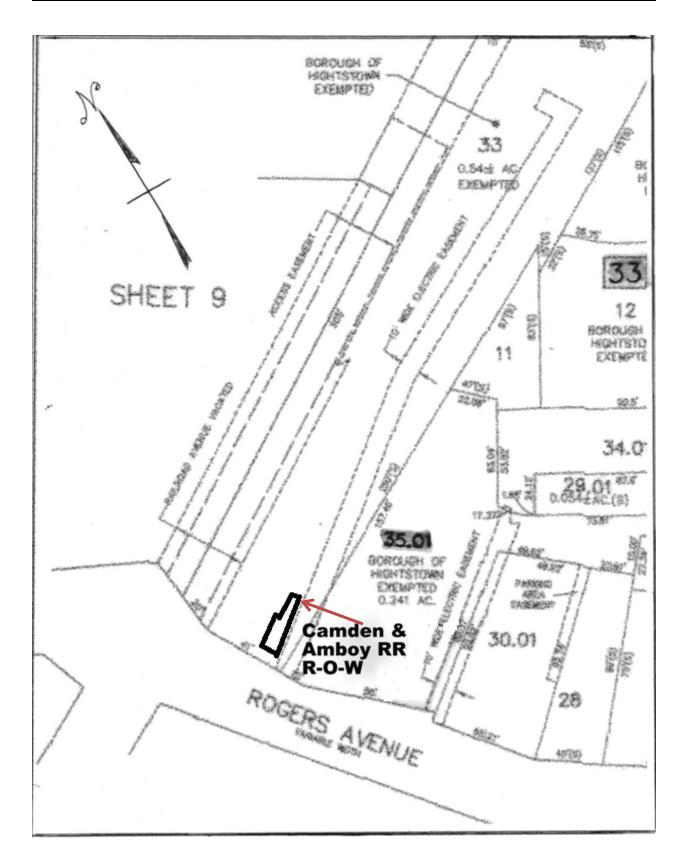
The Camden & Amboy Railroad Right-of-Way Site consists of a portion of Lot 33 in Block 33 of the Borough of Hightstown tax map. The nominated property is roughly rectangular and its long axis extends in a northeasterly/ southwesterly direction. The nominated property is approximately 40 feet long and about 15 to 20 feet wide and is bounded on the northwest by the curb lines of the municipal parking lot that was created from the space of the former Railroad Avenue, on the northerly end by the wood border that surrounds the roadbed segment, on the southeasterly side by the line marked "Electric Easement" on the tax map, and on the southerly side by a line about four feet southerly from the wood border that surrounds the roadbed segment. This last line is about six feet more or less north from the present sidewalk of Rogers Avenue. That line is located approximately ten feet northeasterly from the northerly curb line of Rogers Avenue. (see Borough of Hightstown's tax map, Sheets 9 and 10, for Block 33, Lot 33. (For the extent of the nominated property, see Accompanying documentation).

# **Boundary Justification Statement**

The nominated property encompasses but extends beyond the wooden border that immediately surrounds the Camden & Amboy Railroad roadbed segment to include the interpretive signage to the southeast and the location of an unexposed pair of Camden & Amboy railroad blocks or sleepers that may remain buried beyond the southern edge of the wood border that limits the area of exposed blocks. The area beyond that point to the south has been impacted by the sidewalk and utilities along the northerly side of Rogers Avenue. To the northwest, recent changes to the parking lot in the area of the former Railroad Avenue have encroached on land that was formerly part of the railroad right-of-way, so that the border should extend to the curb line of the parking lot. To the north, the nominated property is limited to the wood border that bounds the exposed roadbed, because the railroad blocks of the segment to the immediate north of that point were removed for the Smithsonian Institution in 1984. To the southeasterly side, the site widens by several feet to include the interpretive marker placed there in 2015.

Camden & Amboy Railroad Right-of-Way Site Mercer County, NJ

#### **Accompanying Documentation**



# Tax Map

Camden & Amboy Railroad Right-of-Way Site Hightstown Borough, Mercer County, NJ

# **Accompanying Documentation**





Camden & Amboy Railroad Right-of-Way Site Plan UTM Coordinates: Zone 18 485207 E 4523044 N

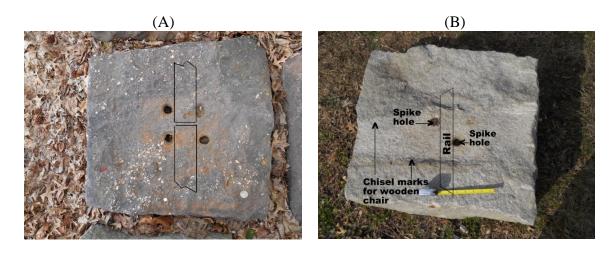


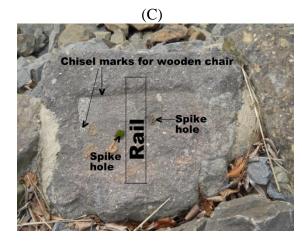
#### Camden & Amboy Railroad Right-of-Way Site Hightstown Borough, Mercer County, NJ

#### **Accompanying Documentation**

# Photographs and Illustrations (continued)

2. Hole arrangements in stone sleeper. (A) four-hole stone arrangement where two rails met, (B) two-hole stone with left hole forward hole arrangement, and (C) two-hole stone with right hole forward arrangement.

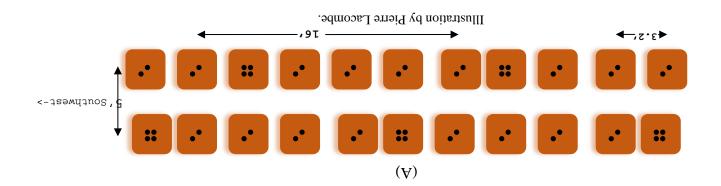




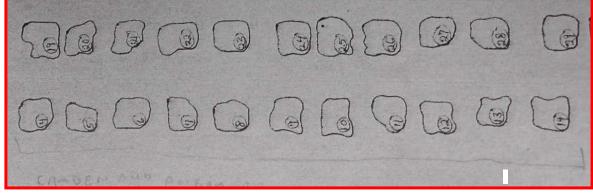
## Accompanying Documentation

# Photographs and Illustrations (continued)

3. Schematic arrangement of the twenty-two stone sleepers at the in situ site. Center of holes between four-hole sleepers is sixteen feet. Four-hole sleepers are offset along the track. Center of holes in two-hole sleepers are about 3.2 feet apart. Sleepers at the site are left-hole forward. Center of holes from one rail to the other rail is five feet.



(	c	T)	١
ſ	۲	L	,



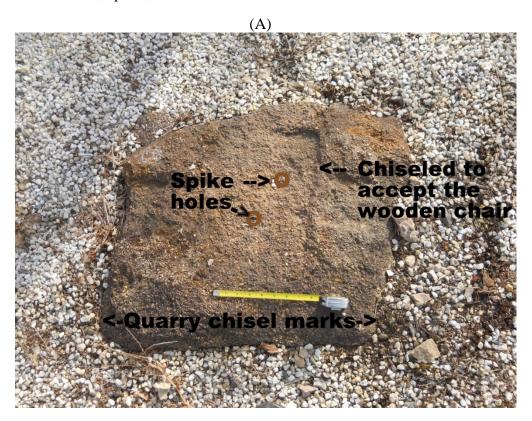
Drawing taken from curators' (William Withuhn and Susan Tolbert) report for the Smithsonian Institution in Washington, D.C. (1984). The original maps are held by the Hightstown-East Windsor Historical Society.

#### Camden & Amboy Railroad Right-of-Way Site Hightstown Borough, Mercer County, NJ

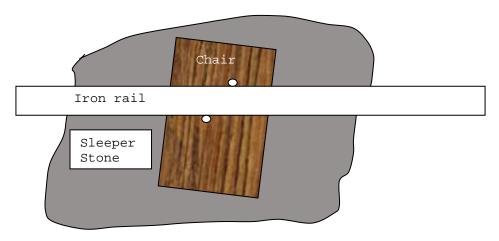
# **Accompanying Documentation**

# Photographs and Illustrations (continued)

4. Top of a two-hole sleeper stone showing an 8x14 inch rectangular depression chiseled to hold a wooden chair and illustration of two-hole sleeper showing the sleeper, wooden chair, spikes, and iron rail.



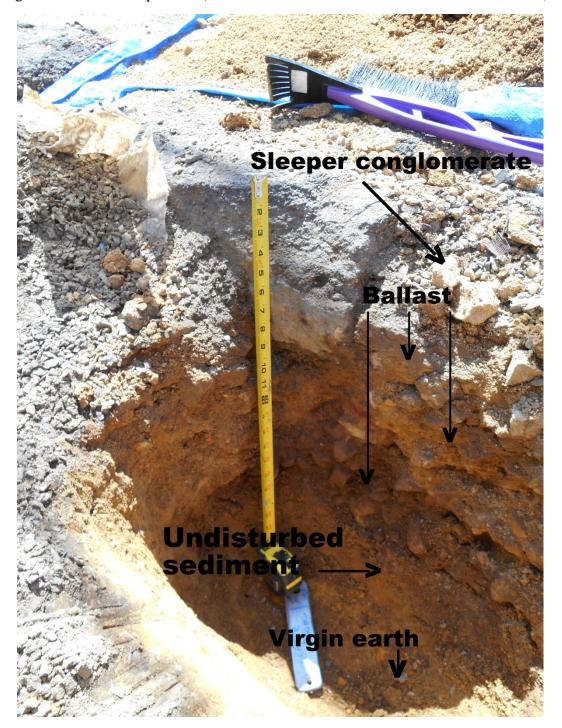
(B)



# **Accompanying Documentation**

# Photographs and Illustrations (continued)

5. Excavation showing the stone sleeper, ballast, and undisturbed native sediment at the Hightstown in situ sleeper site. (Pierre Lacombe excavated the site on June 10, 2014.)

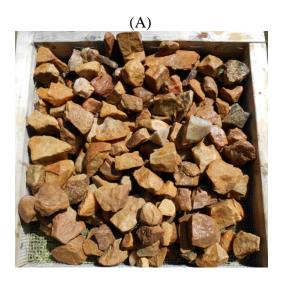


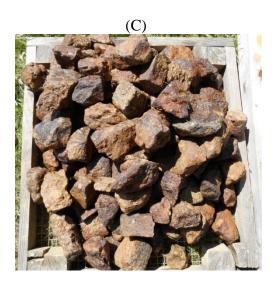
#### Camden & Amboy Railroad Right-of-Way Site Hightstown Borough, Mercer County, NJ

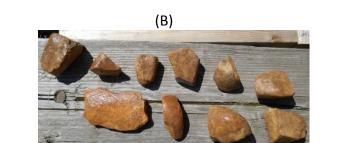
## **Accompanying Documentation**

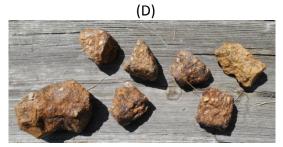
# Photographs and Illustrations (continued)

6. Photograph of washed ballast from the Hightstown in situ site: (A) gravel made from hand-broken cobbles of quartzite, (B) individual pieces of gravel showing the smoothed water-worn surface of the original hand-broken cobbles or boulders. (C) gravel made from the broken iron oxide cemented conglomerate. (D) individual pieces of gravel showing the small pebble conglomerate. (Pierre Lacombe excavated the site on June 10, 2014.)





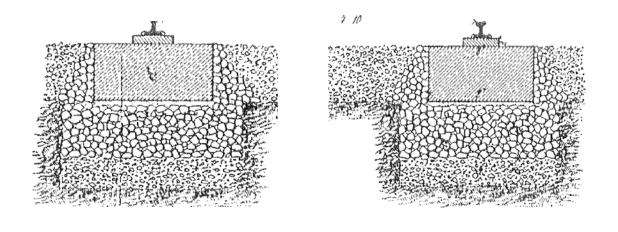




# **Accompanying Documentation**

# Photographs and Illustrations (continued)

7. Section showing the stratigraphy of the ballast (from von Gertsner, 1839).



# **Photographs and Illustrations Log**

Photographs 1, 2, and 4 through 6 are by Pierre Lacombe, taken on the dates indicated below.

- 1. Photograph taken: June 10, 2014. Description: In situ sleeper stone array consisting of twenty-two blocks of conglomerate.
- Photographs taken: January 14, 2012.
   Description: Hole Arrangements in stone sleeper. (A) four-hole stone arrangement where two rails met, (B) two-hole stone with left hole forward hold arrangement, and (C) two-hole stone with right hole forward arrangement. (Pierre Lacombe excavated the site on June 10, 2014.)
- 3. Illustrator: (A) Pierre Lacombe (June 2014). Illustrator: (B) Unknown.

Description: Arrangement of the twenty-two stone sleepers at the in situ site. Center of holes between four-hole sleepers is sixteen feet. Four-hole sleepers are offset along the track. Center of holes in two-hole sleepers are about 3.2 feet apart. Sleepers at the site are left-hole forward. Center of holes from one rail to the other rail is five feet. (Pierre Lacombe excavated the site on June 10, 2014.)

- 4. Photograph (A) taken: January 14, 2012. Illustrator: Pierre Lacombe (2012). Description: Top of a two-hole sleeper stone showing an 8x14 inch rectangular depression chiseled to hold a wooden chair and illustration of two-hole sleeper showing the sleeper, wooden chair, spikes, and iron rail. (Pierre Lacombe excavated the site on June 10, 2014.)
- Photograph taken: June 10, 2014. Description: Excavation by Pierre Lacombe showing the stone sleeper, ballast, and undisturbed native sediment at the Hightstown in situ sleeper site.

# **Accompanying Documentation**

6. Photographs taken: June 10, 2014.

Description: Photograph of washed ballast from the Hightstown in situ site: (A) gravel made from broken cobbles of quartzite, (B) individual pieces of gravel showing the smoothed water worn surface of the original cobble or boulder. (C) gravel made from the broken iron oxide cemented conglomerate. (D) individual pieces of gravel showing the small pebble conglomerate. (Pierre Lacombe excavated the site on June 10, 2014.)

7. Illustrator: Franz Anton Ritter von Gertsner (1839). Description: Section showing the stratigraphy of the ballast. (from von Gertsner, 1839.)



Photo #1 Camden & Amboy Railroad Right-of-Way Site Hightstown Borough, Mercer County, New Jersey

In situ sleeper stone array consisting of twenty-two blocks of conglomerate, facing south.



NATIONAL PARK SERVICE NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET REQUESTED ACTION: NOMINATION PROPERTY Camden and Amboy Railroad Right of Way Site NAME: MULTIPLE NAME: STATE & COUNTY: NEW JERSEY, Mercer DATE RECEIVED: 4/01/16 DATE OF PENDING LIST: 4/21/16 DATE OF 16TH DAY: 5/06/16 DATE OF 45TH DAY: 5/17/168 DATE OF WEEKLY LIST: REFERENCE NUMBER: 16000252 Appeal: N Data Problem: N Landscape: N Less than 50 Years: N Other: N PDIL: Period: N Program Unapproved: N N N SLR Draft: N National: Request: N Sample: N Comment Waiver: N 5/17/2016 DATE ACCEPT REJECT RETURN

UNITED STATES DEPARTMENT OF THE INTERIOR

ABSTRACT/SUMMARY COMMENTS:

See attached Return Sheet for detailed comment.

RECOM./CRITERIA_	leturn		
REVIEWER Patrick	Andrus	Discipline	Historian
DATE 5/17/2016			

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS



# State of New Jersey

MAIL CODE 501-04B DEPARTMENT OF ENVIRONMENTAL PROTECTION Nat. Register of Historic Places NATURAL & HISTORIC RESOURCES HISTORIC PRESERVATION OFFICE P.O. Box 420 Trenton, NJ 08625-0420 TEL. (609) 984-0176 FAX (609) 984-0578

March 18, 2016

Paul Loether, Chief National Register of Historic Places National Park Service Department of the Interior Washington, D.C. 20240

Dear Mr. Loether:

The enclosed disk contains the true and correct copy of the nomination for the Camden & Amboy Railroad Right-of-Way Site, Borough of Hightstown, Mercer County, New Jersey.

This nomination has received unanimous approval from the New Jersey State Review Board for Historic Sites. All procedures were followed in accordance with regulations published in the Federal Register.

Should you want any further information concerning this application, please feel free to contact Daniel D. Saunders, Administrator, New Jersey Historic Preservation Office, Mail code 501-04B, P.O. Box 420, Trenton, New Jersey 08625-0420, or call him at (609) 633-2397.

Sincerely,

**Rich Boornazian Deputy State Historic** Preservation Officer

CHRIS CHRISTIE Governor

KIM GUADAGNO Lt. Governor

Project # 16-0106 HPO-C2016-193

**RECEIVED 2280** 

APR 01 2016

National Park Service ARTIN

Commissioner

NRHP Nomination for Camden & Amboy Railroad Right-of-Way Site (Hightstown Borough, Mercer Co., NJ)

Significance Criteria identified = A, C, and D

ent.

POS = 1831- ca. 1855 (spanning date of construction to date of improvements to the roadbed in Hightstown and discontinuance of use of the original track)

#### **Comments Regarding Applicability of Significance Criterion D**

After reading this nomination, my assessment is that the archeology discussion is not sufficiently supported.

The resource is described in Section 7, p. 1 as:

... a small, preserved portion of the first roadbed laid for the Camden & Amboy Railroad in 1832. This site, while not unique, is nonetheless remarkable because it contains undisturbed sleeper stones that have been deliberately exposed for the purpose of interpretation and public viewing, due to the important history that the stones represent. The site consists of twenty-two sleeper stones that lie *in situ* in a forty-foot long segment of the railroad bed.

Thus, the "site" is a 40-ft segment of railroad ROW consisting of 22 sleeper stones. These stones are an iron oxide cemented conglomerate of Beacon Hill Gravel, for which there is an outcrop ca. six miles from Hightstown. Each of the stone sleepers has two to four holes drilled in the top for driving the spikes in that held the rails to the sleepers.

Here are my concerns:

- Archaeologists rarely leave archeological features exposed and open to the elements in perpetuity. The measures taken here, described in that same paragraph in Section 7, p. 1, note that "A thin layer of white gravel was added to the ground surface in the 1980s to protect the original ballast from erosion damage due to heavy rain, and a wooden border was placed around the site to protect its integrity from the grassy lawn that abuts it."
  - a. How thin is this layer of gravel?
  - b. How often is it replenished (if at all)?
  - c. Is erosion an ongoing concern?
  - Would erosion of the sleeper stones have been a historic concern? If so, how was it addressed historically? (In other words, have folks been placing fill around these stones since the 1830s?)
- 2. How *in situ* is something that has had fill and a border placed around it? Likewise, were these additions monitored by a qualified archeologist?
- 3. If the track was stripped of its rails and buried beneath a foot or more of fill in 1855 (as discussed in Section 8, p. 10), what other features were likely removed at that same time? What would you expect to remain? Where would it be? We ask this because in order to fully justify Significance Criterion D, it is important to not just identify the sleeper stones but to also make a case for what other important information might readily be revealed by archeological investigation of the immediate area.
- 4. Section 8, p. 11 of the nomination notes that the Smithsonian dispatched workers to the site in December 1984 for purposes of removing 18 sleeper stones to accompany interpretation of their John Bull steam locomotive back in Washington, DC. These stones—almost equal in number to those remaining in place in Mercer Co.—were located to the north of the nominated property. What, if anything, was encountered in/around those 18 stones? (In other words, if

nothing was there, then might that speak for what would/would not be found around the 22 remaining stones?)

- 5. Stated slightly differently, specifically what other resources are present that make it a site vs. an isolated find? Name those resources and the basis for anticipating they remain intact.
- 6. What are the edges of the site (i.e., its boundaries)?
- 7. Has a SOI-qualified archeologist ever visited and recorded the site?
- 8. What other archeology has been done in the area or on a similar resource? What resulted? What remains and what sort of sub-surface integrity did that site retain?
- 9. Specifically what research questions would other archeological materials likely to be recovered at the site help resolve?

In short, my assessment is that the argument for Significance Criterion A (in particular) is well met but the corresponding case for Significance Criterion D is not sufficiently supported at this time. My recommendation would be to slightly revamp the nomination and re-characterize the nominated resource as a structure (as would be the case for earthworks, railroad grades, systems of roadways and paths, etc.). Then, while outlining the circumstances of the stones' discovery, the author(s) could note that research is ongoing and, perhaps at a not too distant future date, sufficient information will have been amassed to support Significance Criterion D. The nomination should then state what such evidence would be likely to include.

Julie H. Ernstein, Ph.D. Archeologist National Register of Historic Places (202) 354-2217