

Capsule Summary

CE-1504

Principio Iron Works Charcoal Kiln

Principio

Private

Circa 1890

The Principio Company was established in 1720. Beginning in 1725, intensive ironmaking activity started at the site and continued until the American Revolution. After the war, Samuel Hughes operated a cannon factory on the site, and, in 1836, the property passed to Joseph and George Price Whitaker, who made a series of capital improvements to it. Today the property reflects the Whitaker era of ownership.

The charcoal kiln is a circular brick structure with a dome-shaped roof and side vent openings. Reportedly, the kiln was fired only once and was not used again. The kiln is a rare survivor of the American charcoal era.

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

**Geographic Organization:**

Eastern Shore

**Chronological/Development Period (s):**

Agricultural-Industrial Transition: 1781-1835

Industrial-Urban Dominance: 1870-1930

**Prehistoric/Historic Period Theme (s):**

Economic

**Resource Type:**

Category: Structure

Historic Environment: Village

Historic Functions (s) and Use (s):

Charcoal Kiln

Known Design Source:

Maryland Historical Trust  
State Historic Sites Inventory Form

MARYLAND INVENTORY OF  
HISTORIC PROPERTIES

Survey No. CE-1504

Magi No.

DOE \_\_\_yes \_\_\_no

**1. Name** (indicate preferred name)

historic Principio Iron Works - Charcoal Kiln

and/or common Principio Furnace

**2. Location**

street & number Maryland Route 7 and Principio Creek Bridge \_\_\_ not for publication

city, town Principio Furnace \_\_\_X vicinity of congressional district

state Maryland county Cecil

**3. Classification**

Category	Ownership	Status	Present Use	
___ district	___ public	___ occupied	___ agriculture	___ museum
___ building(s)	___X private	___X unoccupied	___ commercial	___ park
___X structure	___ both	___ work in progress	___ educational	___ private residence
___ site	<b>Public Acquisition</b>	<b>Accessible</b>	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	___ transportation
	___ not applicable	___ no	___ military	___X other:

**4. Owner of Property** (give names and mailing addresses of all owners)

name York Building Products

street & number 1020 N. Hartley Street telephone no.:

city, town York state and zip code PA 17405

**5. Location of Legal Description**

courthouse, registry of deeds, etc. Cecil County Courthouse liber NDS65

street & number Main Street folio 794-98

city, town Elkton state MD

**6. Representation in Existing** Historical Surveys

title

date \_\_\_ federal \_\_\_ state \_\_\_ county \_\_\_ local

pository for survey records

city, town state

# 7. Description

Survey No. (E-1501)

**Condition**

excellent  
 good  
 fair

deteriorated  
 ruins  
 unexposed

**Check one**

unaltered  
 altered

**Check one**

original site  
 moved    date of move \_\_\_\_\_

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

SEE CONTINUATION SHEET

# 8. Significance

Survey No. CE-1504

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input checked="" type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates	Builder/Architect
check: Applicable Criteria: <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D and/or	
Applicable Exception: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G	
Level of Significance: <input checked="" type="checkbox"/> national <input type="checkbox"/> state <input type="checkbox"/> local	

Prepare both a summary paragraph of significance and a general statement of history and support.

SEE CONTINUATION SHEET

# 9. Major Bibliographical References

Survey No. CF-1504

May, Earl Chapin. Principio To Wheeling. New York: Harper & Brothers, 1945.

Robbins, Michael W. The Principio Company. New York: Garland Publishing Co., 1986.

# 10. Geographical Data

Acreeage of nominated property 90 acres

Quadrangle name Havre De Grace, MD

Quadrangle scale 1:24000

UTM References do NOT complete UTM references

A	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Zone	Easting	Northing

B	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Zone	Easting	Northing

C	<input type="text"/>	<input type="text"/>	<input type="text"/>
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D	<input type="text"/>	<input type="text"/>	<input type="text"/>
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E	<input type="text"/>	<input type="text"/>	<input type="text"/>
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F	<input type="text"/>	<input type="text"/>	<input type="text"/>
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G	<input type="text"/>	<input type="text"/>	<input type="text"/>
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H	<input type="text"/>	<input type="text"/>	<input type="text"/>
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## Verbal boundary description and justification

The Principio Iron Works property is bounded by Principio Creek to the east and south, by Maryland Route 7 to the north, and by Principio Station Road to the west.

This boundary encompasses all the resources associated with the historic iron works.

## List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

# 11. Form Prepared By

name/title	Lee R. Maddex, Project Coordinator Sr.		
organization	Institute for the History of Technology & Industrial Archaeology	date	4/30/98
street & number	1535 Mileground	telephone	(304) 293-3829
city or town	Morgantown	state	WV 26505

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust  
 Shaw House  
 21 State Circle  
 Annapolis, Maryland 21401  
 (301) 269-2438

MARYLAND HISTORICAL TRUST  
 DHCP/DHCD  
 100 COMMUNITY PLACE  
 CROWNSVILLE, MD 21032-2023  
 514-7600

The Principio Company was established in 1720. Beginning 1725, intensive ironmaking activity started at the site and continued until the American Revolution. After the war, Samuel Hughes operated a cannon factory on the site, and, in 1836, the property passed to Joseph and George Price Whitaker, who made a series of capital improvements to it. Today, the property reflects the Whitaker era of ownership. The property consists of the Second Empire-style company office building, two 1920s corn cribs, foundational remains of a circa 1836 barn, a circa 1850 tool house, a 1890s wagon barn, standing remains of a 1890s blacksmith/wheelwrights shop, a 1890 charcoal kiln, a circa 1890 wash house, foundational remains of a scale house, foundational remains of two charcoal barns, 1837 charcoal iron blast furnace with hot blast stove and waterpowered blowing engine, partial remains of a 1890 hoist house, a 1890 blower engine house, and a circa 1850 shanty.

Resource Count: one (1)

The charcoal kiln was built circa 1890. The circular brick structure has a domed-shaped roof and side vent openings. There is a large door opening on the southern side.

The charcoal kiln was used in the production of charcoal. The advantage to using a kiln was the increased yield of charcoal per cord and in later years, the secondary recovery of the gas for the production various chemicals. The vents were left open for several days, until the wood had been charcoaled and then closed to end combustion. Reportedly, this kiln was fired only once and not used again. It is unclear why it was abandoned, but period literature notes that large round kilns were more difficult to construct and operate and lost favor to conical-shaped kilns. The Principio charcoal kiln is a rare survivor of the American charcoal iron era.<sup>2</sup>

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<sup>2</sup> T. Egleston, "The Manufacture of Charcoal in Kilns," *Transactions of the American Institute of Mining Engineers* VIII (1880): 386-89.

The charcoal kiln is significant under Criterion A for the area of industry. The structure represents the state-of-the-art processes used to manufacture charcoal in the late nineteenth century and the relentless need for charcoal at the Principio Iron Works.

Established in 1720, the Principio Company constructed the Principio Iron Works, the first blast furnace and refinery forge in the Maryland Colony. Located at the head of the Chesapeake Bay, the ironworks plantation consisted of the 1725 Principio Furnace, the 1728 Principio Forge, a store, and dwellings. The Principio Iron Works operated until the time of the American Revolution when they were abandoned. The property was confiscated by the state of Maryland in 1781, and it passed to Colonel Samuel Hughes in 1785. Hughes rebuilt the furnace and added a foundry for the production of cannon. After these works were destroyed by British raiders during the War of 1812, Hughes rebuilt the ironworks, but it bankrupted him and the property passed to his creditors in 1817. The property remained virtually idle for the next two decades when it was first acquired by David Stewart and others in 1834, who in turn sold it Joseph Whitaker II and his brother George Price Whitaker in 1836. The Whitaker brothers completely renovated the aged ironworks, erecting a new blast furnace plant and new worker housing. Importantly, the site was crossed by the recently completed Philadelphia, Wilmington and Baltimore Railroad which created a nexus enabling the ironwork's products to reach larger national markets. Following the Civil War, George Price Whitaker embarked on a second program of capital improvements which included the construction of a new dam, hot blast stove, blowing engine, and waterpowered turbine. Expanding the scope of production at the site, Whitaker, in 1883-84, erected a steampowered forge for the manufacture of wrought iron blooms. The 1837 furnace could not produce enough iron to keep his forge operating continuously and Whitaker commenced a third period of capital improvements to remedy this shortfall. Completed in August 1890, Whitaker erected a cupola-style blast furnace with hot blast stoves, blower engine house, boiler house, hoist house, a cast house, and a charcoal kiln (designed to increase charcoal yield and therefore reduce costs), but these improvements were abandoned shortly after his death in December 1890. Control of the property then passed to Whitaker's nephew Nelson E. Whitaker, who chose to close down the furnaces and produce wrought iron blooms only. Bloom production became closely allied with the Tyler Tube and Pipe Company of Washington, Pennsylvania, owned by William P. Tyler, Nelson E. Whitaker's son-in-law. The forge continued to operate until 1925 when production ceased. The storied Principio property reverted to agricultural use.

← TO PERRYVILLE

CE-1504

MD RT 7 (POST ROAD)

PRINCIPIO STATION ROAD

CE-112A

CE-1499

CE-1500

CE-1501

CE-1502

CE-1503

CE-1506

CE-1504

CE-1505

CE-1507

CE-1509

CE-1508

CE-1510

CE-1511

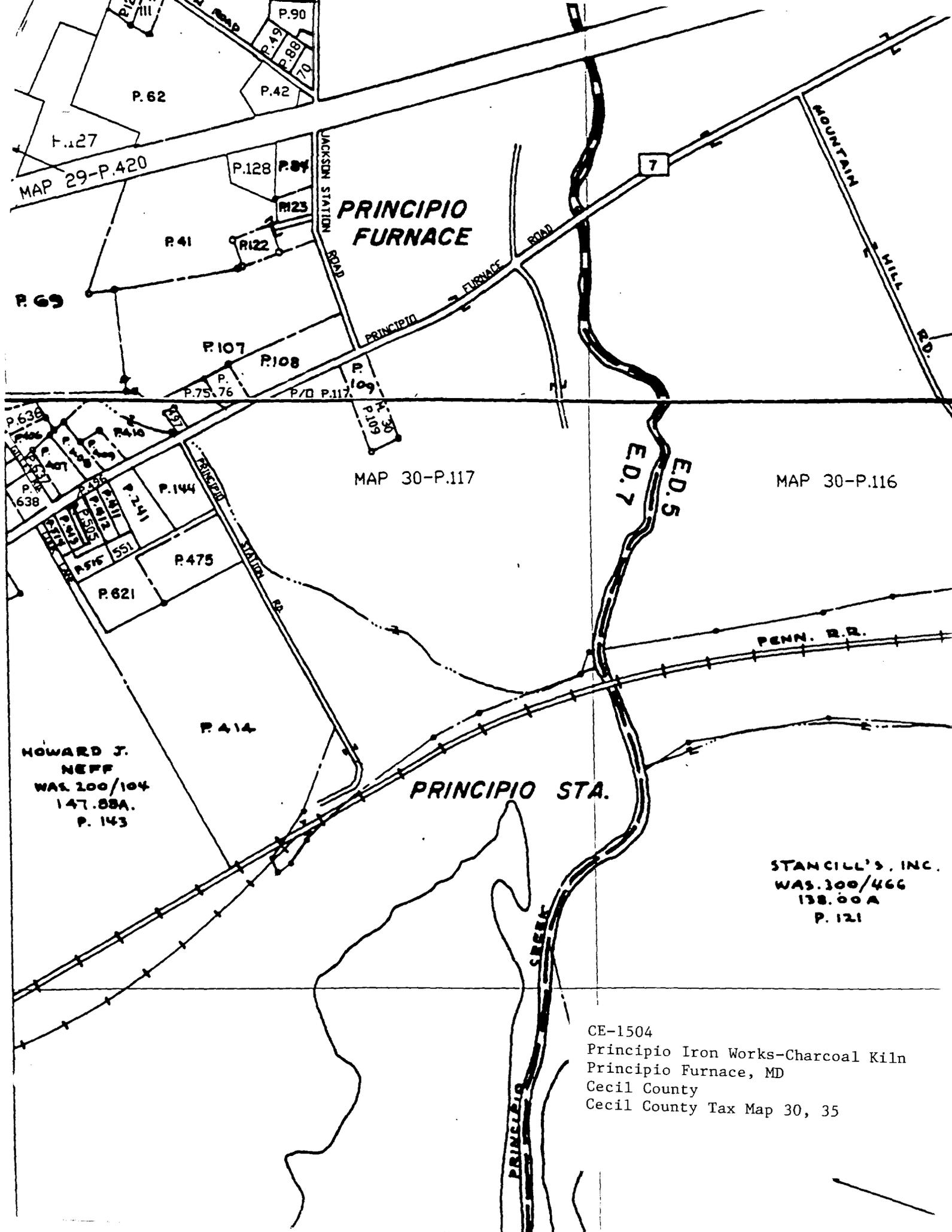
CE-1512

PRINCIPIO CREEK



NO SCALE

Principio Innu Womies  
RESOURCE SKETCH MAP  
MAY 1998  
Principio Furmanee, Cecil County, Maryland



HOWARD J. NEFF  
 WAS 200/104  
 147.88A.  
 P. 143

PRINCIPIO STA.

STANCILL'S, INC.  
 WAS.300/466  
 138.00A  
 P. 121

CE-1504  
 Principio Iron Works-Charcoal Kiln  
 Principio Furnace, MD  
 Cecil County  
 Cecil County Tax Map 30, 35



CE-1504

CHARCOAL KILN

PRINCIPLO IRON WORKS

CECIL COUNTY, MARYLAND

LEE R. MADDEX

MARCH 1998 MARYLAND ENPO

VIEW LOOKING WEST

~~7/16~~