National Park Service
U.S. Department of the Interior

Rock Creek Park

PEIRCE MILL COMPLEX

Cultural Landscape Report

August 2009

Cover Illustration: View of Peirce Mill complex looking across Rock Creek to the west, ca.1897 (source: Rock Creek Park Photograph Collection PM2-60).

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Document Number: D-160

Peirce Mill Complex

Rock Creek Park

CULTURAL LANDSCAPE REPORT

PREPARED FOR:
NATIONAL PARK SERVICE
ROCK CREEK PARK
NATIONAL CAPITAL REGION
and
DENVER SERVICE CENTER

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GOVERNMENT PROJECT NUMBER: 77569

August 2009

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Chapter 1: Administrative Data

Chapter 1: Administrative Data

Scope of the Report

The intent of this *Cultural Landscape Report (CLR)* is to guide treatment and use of the above-ground resources associated with the significant historic landscapes within the Peirce Mill Complex project area. A thorough investigation and evaluation of the historic landscapes has been conducted using National Park Service (NPS) and National Register of Historic Places guidelines. The documentation of historic significance and evaluation of integrity of the historic landscapes serves as a framework upon which treatment recommendations are developed. When completed, the report will provide park managers with a comprehensive understanding of the physical evolution of the historic landscape, and guidance for landscape management.

Project Objectives

A number of project objectives laid the framework for the development of the project and report.

- Document the development of the historic landscapes within the Peirce Mill complex.
- Document the existing conditions within the Peirce Mill complex.
- Evaluate the significance and integrity of the historic landscapes.
- Develop and evaluate treatment alternatives for landscape design and management.
- Provide treatment recommendations for managing the historic landscape resources within the Peirce Mill Complex.
- Provide management recommendations and schematic designs for the historic core that accommodate current and future needs while preserving the historic character and significant landscape features present.
- Enhance visitor experience by providing information about the history of the development of the historic landscape to interpreters and site managers.

Park Purpose/Significance

Rock Creek Park was created by legislation enacted by Congress on September 27, 1890, which set aside Reservation 339 for the park. At the close of the nineteenth-century, the Rock Creek valley extending from the northern end of the National Zoological Park to the Maryland line was transformed from a collection of individual farms, homesteads and mill sites to a national park to protect the natural resources and cultural "curiosities" within the boundaries of the park. The core of Rock Creek Park is the creek and adjacent valley landscape enclosed by steeply slopes.

Location

The Peirce Mill Complex is located in Rock Creek Park in the northwest quadrant of the District of Columbia, see Figure 1-1. Rock Creek Park contains approximately 1,429 acres of natural forest growth and accommodates just over 300 acres of intensive recreational facilities, roads, trails, structures, and sites.[1] Peirce Mill is located in the southern portion of Rock Creek Park, as seen in Figure 1-2. The site can be accessed from Tilden Street, Beach Drive, or Broad Branch Road.

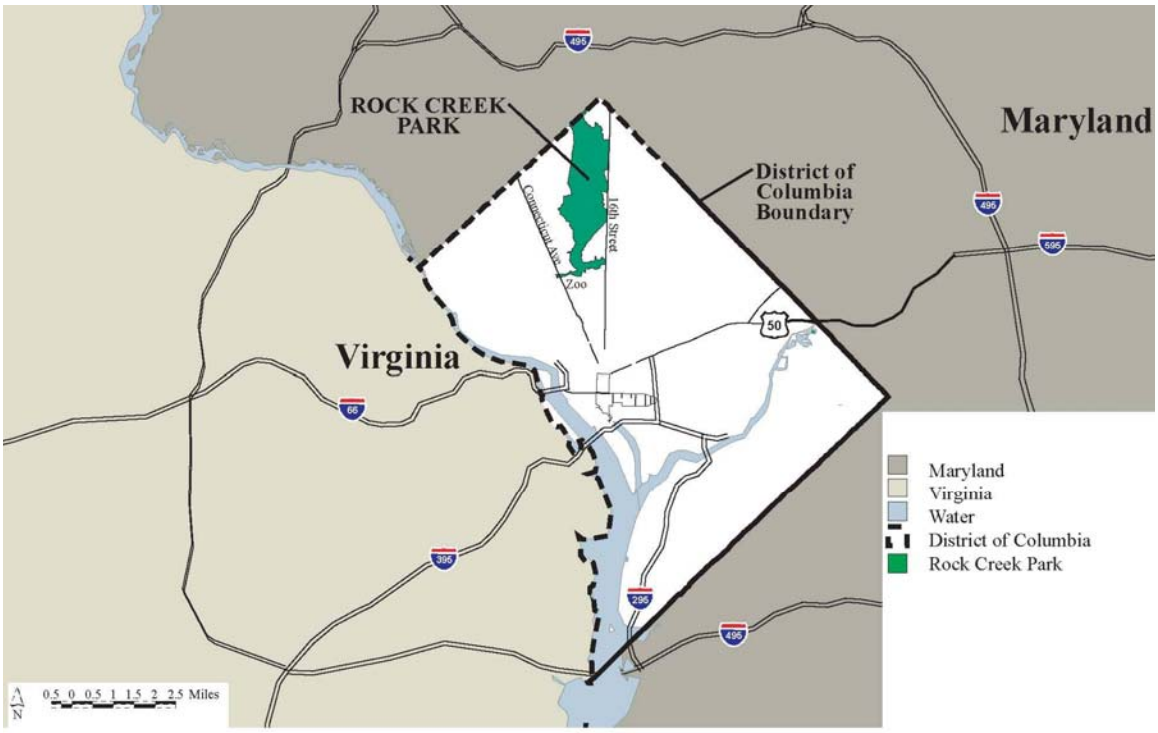


Figure 1- 1: Location of Rock Creek Park in the District of Columbia. (source: adapted from Volume 1: Final General Management Plan Environmental Impact Statement Rock Creek Park and the Rock Creek and Potomac Parkway, Washington, D.C., 7)

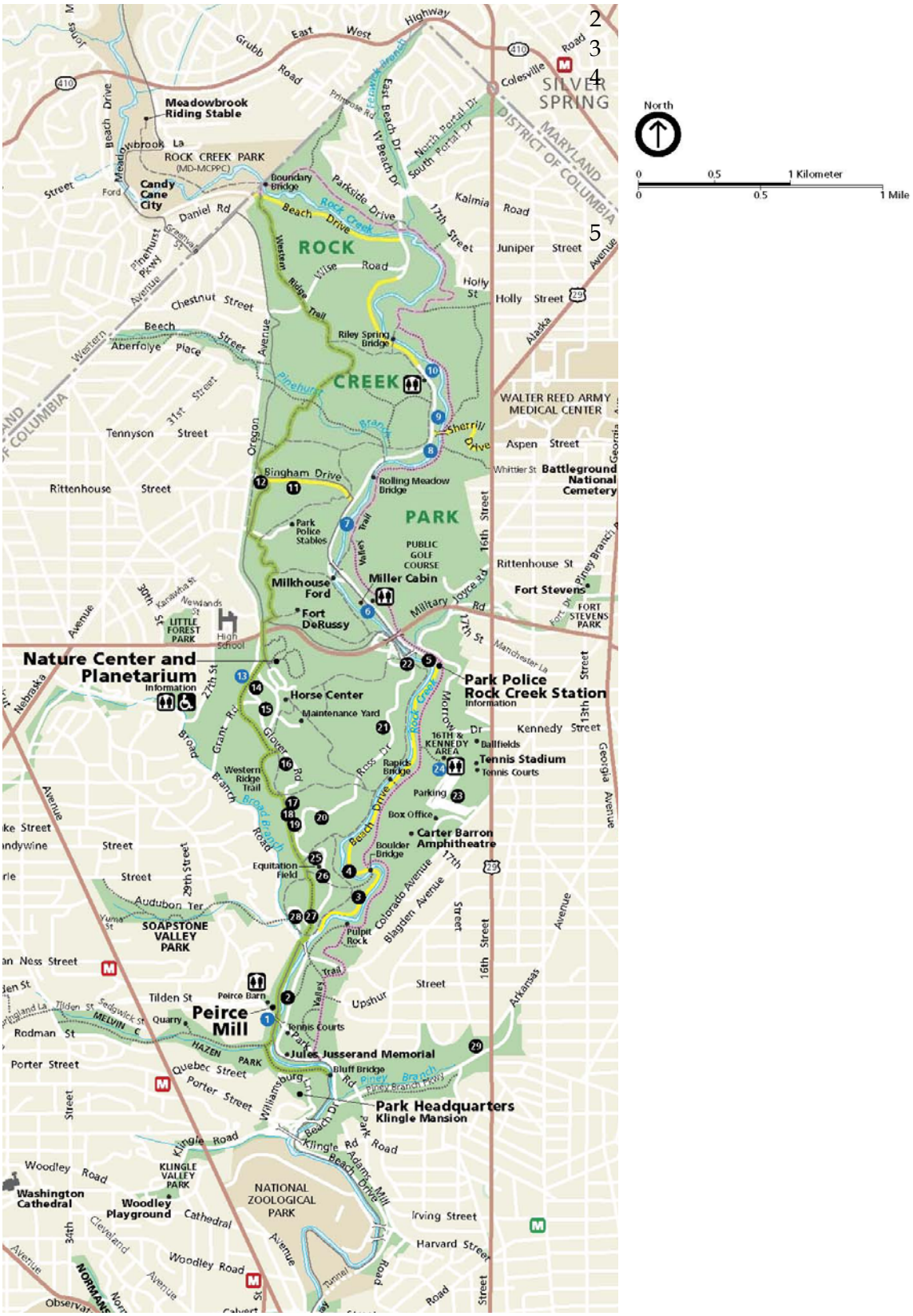


Figure 1- 2: Peirce Mill is located in the southern portion of Rock Creek Park. (source: http://www.nps.gov/rocr/planyourvisit/upload/ROCRmap1.pdf, modified by QEA)

Description of the Project Area

The project area consists of 20.7 acres associated with the Peirce Mill Complex located in the southern portion of Rock Creek Park. Situated on the northwest bank of Rock Creek immediately north of Tilden Street, Peirce Mill serves as a cultural destination within Rock Creek Park. The project area contains a combination of cultural and ecological resources including picnic grounds, historic structures, and naturalistic environments. Visitor access to Peirce Mill is by automobile via Tilden Street, by foot, and by bicycle via trails developed from nineteenth-century roads and early twentieth-century bridle paths.

The project area boundary is illustrated in Figure 1-3. The western edge of the project area is marked by woods that cover the steep east-facing slope. The northern and eastern edges are formed by roads, Broad Branch Road and Beach Drive respectively. The southern boundary of the landscape is defined by the edge of the woods and the Melvin Hazen tributary of Rock Creek. These boundaries are based loosely on the boundaries of three parcels (Acquisition Tracts 75, 76, and 77) purchased from Peirce Shoemaker by the Federal government in 1891 to create a portion of Rock Creek Park.

The historic core of the project area is defined as a hub including the primary resources associated with the Peirce Mill property. These are the Mill, barn, millrace, and the landscape immediately surrounding these resources, as illustrated in Figure 1-3. Throughout this report resources within the project area are addressed at two scales. At a broad scale, the overall project area boundary defines the area addressed. Resources within this area are evaluated and general management recommendations are provided. At a more detailed level resources within the historic core are considered. Figure 1-3 illustrates the boundaries of the project area and the location of the historic core.

Figure 1- 3: Peirce Mill Project Area and Historic Core.

Landscape Character Areas

The landscapes within the project area are described herein as landscape character areas that are defined by their physical qualities and the cultural resources present.[2] Three types of landscape character areas are found at Peirce Mill. They include landscapes defined by historic structures and landscape features; landscapes that include naturalistic environments, and landscapes used as picnic groves. Eight landscape character areas have been identified and are illustrated in Figure 1-4. The landscape character areas defined by historic resources include: 1) the historic core; 2) the spring house area; and 3) the historic road and headrace area. The landscape character areas defined by naturalistic environments include the wooded buffer area and the Rock Creek area. The landscape character areas utilized as picnic groves include the Grove 1 picnic, north Grove 2 area and east Grove 2 area. The Peirce Mill complex landscape character areas are described in this section.

Historic Core

As stated above, the historic core of the project area includes the primary resources associated with the Peirce Mill property. These are the Mill, barn, millrace, historic millrace routes, historic road route, the site of a non-extant orchard, and other landscape features immediately surrounding these resources, as illustrated in Figure 1-3. In addition, non-contributing resources are present in the historic core, including a driveway, parking lot, comfort station, sidewalks, vegetation, split-rail fence, and signs.

Spring House Area

Although the spring house is located outside the project area, it contributes to the overall integrity of the historic landscape. The building is separated from the main portion of the Peirce Mill complex by Tilden Street. The two lanes of Tilden separate at the spring house site and the building and associated features are surrounded by the road on both sides. In addition to the stone spring building, contributing features include stone retaining walls and mature deciduous trees.

Historic Road and Headrace Area

The historic road and headrace area extends to the north along Rock Creek from the north side of the historic core. It includes the route of the historic road as well as the route of the original millrace. The historic road route is currently utilized for a multi-use trail. Although the millrace is no longer apparent on the surface, it is believed that the remnants of the filled-in millrace are present below the surface. The area also includes a social trail along the creek bank, shrubs and trees on the bank, and deciduous trees spaced intermittently throughout the corridor.

Wooded Buffer Area

The wooded buffer area is located along the northwestern boundary of the site on a steeply sloping east-facing hill. Vegetation on the slope is dense and includes successional forest growth, including oak (Quercus sp.), tulip tree (Liriodendron tuliperifera), maple (Acer sp.), and beech (Fagus sp.) and invasive exotic plants including grapevine (Vitis vinifera), porcelain berry (Ampelopsis brevipedunculata), and Tree-of-Heaven (Ailanthus altissima). The dense vegetation on the slope screens views between the project area and surrounding development.

Rock Creek Area

The Rock Creek area includes the portion of Rock Creek that runs through the project area, its adjacent banks and the vegetated areas adjacent to the creek. The creek is both a naturalistic and historic feature of the site-its presence led to the construction of the Mill in this location. The creek serves as the overflow system for the District of Columbia sewer system during periods of heavy rain; as a result, the quality of the water in Rock Creek is poor. The velocity of the creek and impacts from visitor use along the banks is causing erosion. Contributing resources include the creek and its banks, the site of the historic ford, the 1890s dam, remnants of the crib dam, a retaining wall and headgate, and the site of the original headgate. Non-contributing features include the fish ladder and invasive exotic vegetation that is blocking historic views.

Grove 1 Area

This area includes a picnic shelter with restrooms, a twenty-space parking lot, a picnic meadow with intermittent canopy trees, a multi-use trail along the west bank of the creek, a pedestrian bridge across the creek, and an unpaved trail that leads from the picnic shelter to the pedestrian bridge.

North Grove 2 Area

The north Grove 2 area is located at the northern end of the project area. It contains a parking lot with nineteen spaces that can be accessed from Broad Branch Road. A bike path cuts through the parking lot from Beach Drive to the multi-use trail along the historic road route. The area between the parking lot and the creek is at a lower level than the parking lot includes a small picnic meadow and a social trail that cuts through the area at a diagonal. The creek is edged by native shrubs and invasive exotic vegetation that block views toward the creek.

East Grove 2 Area

The east Grove 2 area is located between the east side of Rock Creek and the west side of Beach Drive. The area includes a thirty-four space parking lot, views of the dam, mill, and fish ladder, and a small picnic meadow with canopy deciduous trees. A historic stone fireplace and stone fire pit are located in the picnic meadow.

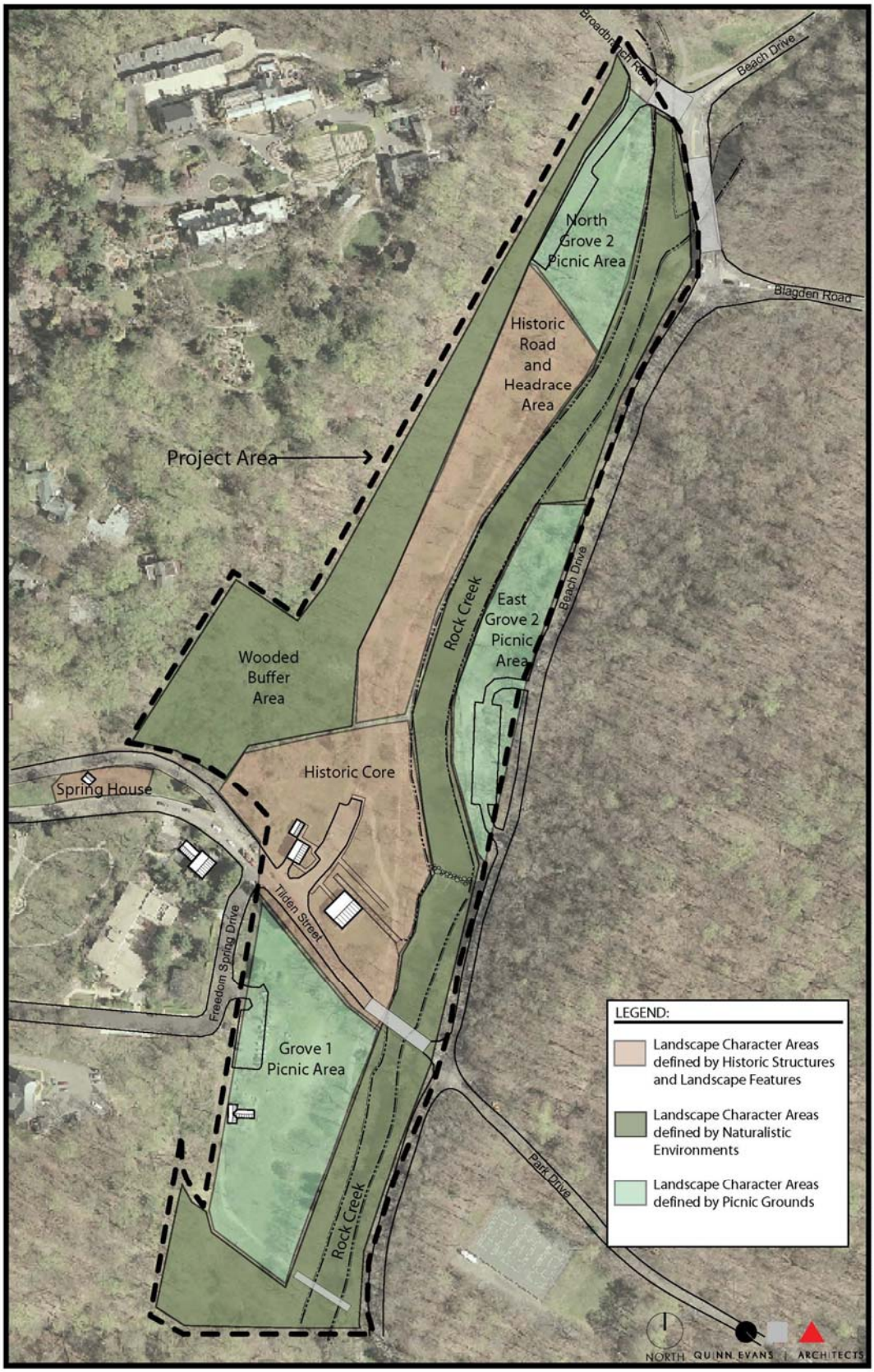


Figure 1- 4: Landscape Character Areas

Report Methodology

The report was prepared according to federal standards guiding cultural landscape projects including *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques,*[3] *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.*[4]

A field inventory of existing conditions and landscape features was conducted by Quinn Evans | Architects in fall 2008. Base map information was provided by the National Park Service, in the form of a survey conducted in the fall of 2008.

This report has been organized as indicated below:

Terminology

This section includes definitions of terminology used in the report that may be unfamiliar to the reader.

- *Peirce Mill Project Area*: the entire 20.7 acre area associated with the Peirce Mill Complex, illustrated in Figure 1-3.

- *Peirce Mill Historic Core:* The portion of the Peirce Mill project area that includes the primary historic resources associated with the Peirce Mill property, illustrated in Figure 1-3.

- *Landscape Character Area:* landscapes described by their physical qualities (such as landforms, vegetation, and topography) and the cultural resources present.

- *Cultural Landscape Report:* refers to the primary management document for cultural landscapes within the National Park Service. A cultural landscape report documents the history and existing conditions of a cultural landscape, evaluates its significance according to Secretary of Interior standards, and provides design and management recommendations for the property.

- *Vernacular:* is a term used to categorize methods of construction which use locally available resources and traditions to address local needs. These resources tend to evolve over time and reflect the environmental, cultural and historical context in which it exists.

Endnotes

[1] Historic Resource Study, 2.
[2] Page, Robert R., Cathy A. Gilbert, and Susan A. Dolan, 1998. A Guide to Cultural Landscape Reports: Contents, Process, and Techniques (Washington, DC: U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program), 75. The document defines landscape character areas as: "defined by the physical qualities of a landscape (such as landforms, structural clusters, and masses of vegetation) and the type and concentration of cultural resources. Character areas are based on the existing condition of the characteristics and features that define and illustrate the significance of the landscape."
[3] Page, Gilbert and Dolan, 1998.
[4] Birnbaum, Charles A. and Christine Capella Peters, 1996. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Washington, DC: Department of the Interior, National Park Service.

Chapter 2: Landscape History

Chapter 2: Landscape History

Introduction

In the mid nineteenth-century, the area around Peirce Mill was noted for its picturesque character. The cluster of stone farm and mill buildings, the ford across the flowing water of Rock Creek, the boulders along the banks, and the surrounding hills created an evocative setting. In 1858, the photographer, Titian Peale, captured an image of the mill in one of the first photographs of Washington D.C. Peale shows the mill structure shrouded by shade trees, with the western slope in the background lit by sunlight, see Figure 2-1. The image, with its air of mystery, aptly illustrates the description of the farm and the mill scene in 1848 made by one District citizen:

> *"It struck me as one of the most comfortable and poetical nooks that I have ever beheld. It seemed to have everything about it calculated to win the heart of a lover of nature and rural life. Though situated on the side of a hill and embowered in trees, it commands a pleasing landscape; and it was built upwards of one hundred years ago, it is interesting for its antiquity. Surmounted as it is with a pointed roof, green with moss of years, and flanked by a vine-covered porch, the vegetation which clusters around it is so abundant that one could hardly discover its real proportions. And all the outbuildings were within keeping of the cottage itself. It is, upon the whole, one of the most interesting nooks to be found anywhere within an hour's ride of the Capitol."*[1]

Figure 2- 1: Peirce Mill viewed from the southeast Titian Peele Image, 1858. (Source: Photograph by Titian Peele, Peirce Mill Historic Structure Report). Note: sources differ regarding the date of this image. Bedell, Fiedel, and LeeDecker indicate it was produced in 1855.

Today, the mill site is situated on the west bank of Rock Creek near the intersection of Tilden Street and Beach Drive, N.W. Tilden Street partially follows the course of old Pierce Mill Road, a route that ran east to west from present-day 14th Street, across the banks of Rock Creek to connect with the road to Rockville (Wisconsin Avenue). The mill structure sits in a sloped depression created by the creek on the east, the elevation of the Tilden Street Bridge on the south, and the higher grade of the parking lot on the north. It serves primarily as an interpretative site on the history of milling. In addition, park management uses the mill as a visitor contact point. The Peirce Mill complex historically included structures that are both within and outside the current boundaries of Rock Creek Park. The mill, the stone wagon barn/stable, and the springhouse belong to the National Park Service. The residence and original stone barn are on private property.

1799 and Earlier

During the late prehistoric period, the vegetation of the Rock Creek Valley was dominated by a mixture of American beech (Fagus grandifolia), tulip tree (Liriodendron tulipfera), American linden/basswood (Tilia americana), ash (Fraxinus sp.) and oak (Quercus sp.). Other trees contributing to the vegetative canopy were: butternut (Juglans cinera), maple (Acer sp.), sassafras (Sassafras albidum), hickory (Carya sp.), sour gum (Nyssa sylvatica), and sweet gum (Liquidambar styraciflua). The understory consisted of dogwood (Cornus sp.), ironwood (Carpinus caroliniana), serviceberry (Amelanchier arborea), wild black cherry (Prunus serotina), azalea (Rhododendron sp.), viburnum (Viburnum sp.), spicebush (Lindera benzoin), and witchhazel (Hamamelis sp.). The steep northern slopes of the ridge were distinguished by stands of hemlock (Tsuga sp.). The floodplain included birch (Betula nigra), willow (Salix sp.), walnut (Juglans nigra), cottonwood (Populus deltoids), mulberry (Morus alba), alder (Alnus glutinosa), sycamore (Platanus occidentalis) and elm (Ulmus sp.).[2]

The first human occupation of the Rock Creek Valley in the vicinity of Peirce Mill probably occurred as early as the Late Archaic period (c. 4000 BC to 1000 BC), when Native Americans, possibly members of the Conoy or Anacostin tribes, set up transitory encampment sites along the stream bank. One such site was located along the east side of the creek, south of its intersection with Broad Branch, in an area associated with the Peirce Mill property.[3] Here, Indians would have hunted, prepared hides, and worked with wood.[4]

Although the Proprietary of Maryland was chartered in 1632, it was not until the Treaty of Albany was signed in 1722 that the political conditions on the frontier of the English colonies stabilized. As a result, settlers poured into the western areas while the population of the older settlements increased. Commerce increased and more intensive forms of agriculture were applied as additional land was cultivated. A decline in the importance of tobacco production and subsequent increase in grain cultivation influenced changes in land tenure. As the demand for flour increased, land in the region was utilized for the cultivation of wheat and other grains.

Increases in grain production encouraged the construction of both custom mills and larger merchant mills. Hundreds of mills were built throughout the Chesapeake region and westward, in locations that provided water power and good access to transportation routes. Many merchant mills were developed along the new Chesapeake and Ohio Canal, and smaller custom mills were built throughout other rural areas. Custom mills generally served agricultural communities, while the larger merchant mills catered to the industrial, market-oriented economy. Both types of mills operated within close proximity to each other until the beginning of the twentieth century. The custom mills were often part of larger plantation complexes that included diverse agricultural and small industrial endeavors.[5]

The first colonial mills were usually constructed of stone and timber designed to meet the needs of individual or small groups of families. Such mills could operate with a limited amount of water flow or natural current, and without a dam or a raceway. By the middle of the eighteenth century, the early, primitive mills had evolved into custom mills, which were also sited along streams or rivers. By raising the level of the stream with a wooden or stone dam, and by directing the flow through the narrow channel of an inclined raceway to bring swiftly moving water to the mill wheel, enough waterpower was generated to turn the wheel. Through axle shafts and gearing, the wheel turned one or more millstones, or a buhr pair of stones. A typical custom mill was a simple apparatus using a vertical undershot wheel and a portable grinding stone, and a small hopper to collect the ground meal. Easily dismantled, this machinery was often housed under an open-sided, wooden structure. Total output was three to four bushels per hour. Sawmills were frequently constructed near custom mills. Other structures associated with mill sites included granaries, equipment sheds, and a coopers shop for making flour barrels.[6] Together these structures created small mill complexes. This arrangement remained fairly typical in areas that were not served by prominent transportation routes, such as rivers and public roads.

Rock Creek provided several outstanding water mill sites and mills with associated plantation complexes were constructed along the creek by the mid- 1700s. Documentation indicates that in 1749 a gristmill was present at a tract known as "Widows Mite," near the mouth of Rock Creek on its east bank. Documentation indicates that Beall's Mill was built on Rock Creek before 1760.[7] In 1791 the lands associated with the lower portion of the watershed were incorporated into the boundaries of the newly formed District of Columbia. By the time of the creation of the Federal city, most of the landowners in the region lived on large parcels that they had inherited from original settlers.[8]

1800-1890

Documentation indicates that there may have been as many as eight mills constructed at the beginning of the nineteenth-century along the banks of Rock Creek.[9] In addition to the available waterpower from the flow of Rock Creek, the soils of the District of Columbia were also most fertile along the stream valleys. Here small farms could cultivate tobacco, corn, wheat, potatoes, garden produce, fruits and wine grapes.[10] These were the conditions found by Isaac Peirce when he first acquired land along Rock Creek. Isaac Peirce was born in 1756 in Chester County, Pennsylvania, and probably came to the Potomac Valley in the 1780s. Peirce and his wife Elizabeth (Betsy) Cloud had nine children. A former Pennsylvania Quaker, Peirce was an enterprising landholder, farmer and millwright. He directed the operations of a farm, sawmill, gristmill, and nursery. By 1800, Peirce had acquired land totaling nearly 2000 acres. At the time of his death in 1841, he held title to more than 1,200 acres in northwest Washington.[11]

In 1794, Peirce purchased approximately 150 acres along Rock Creek from William Deakins, a Georgetown entrepreneur. This property included a pre-existing frame house and a two-story frame mill—Samuel Beall's old wooden mill. The mill site that Peirce purchased from Deakins may have been located further down stream, closer to the mouth of Piney Branch, than the site commonly associated today with Peirce.[12]

Prior to developing the new mill, Peirce established a farmstead. In 1810 he constructed a new residence, locating the house about a quarter mile west of what would become the new mill site along the east/west road that forded the creek.[13] This route subsequently became known as Peirce's Mill Road (see Figure 2-2).[14] Peirce also built several barns and outbuildings, including a springhouse (1801) and a potato house (1804). The springhouse and a small outbuilding (constructed in 1810 and identified in 1864 as "family house") were sited on the western slope north of the residence (see Figure 2-3). A cow barn (c.1810) was located further up the hill to the north. Closer to the mill site and the ford, Pierce built a stone wagon barn/stable (1810) on the north side of the road and a smaller stone barn (constructed in 1811, converted to a distillery after 1864, converted back to a barn in 1878 and to a residence by 1916) on the south side of the road. The earliest plan diagram illustrating the locations of buildings and landscape features associated with the property was prepared in 1861 (see Figure 2-4). The roads, buildings, and extensive orchards are apparent on the map.

The daily operation of the mill was most likely overseen by one of Peirce's slaves. Later the mill operation was leased to a succession of millers. A frame house for the miller's use was constructed near the stone barn around 1820.[15] The head of water needed to turn the grist mill's undershot wheel came from a wooden crib-style dam constructed upstream from the mill site, just south of the confluence of Rock Creek with Broad Branch.

It is believed that Samuel Beall's mill remained until the 1820s, when Isaac Peirce built the structure now known as Peirce's Mill. The corner stone of the structure displays the date 1829. In 1840 the existing mill wheel was replaced with a more powerful overshot wheel. This change was probably due to consistently lower water levels in the creek at that time.[16] The first graphic documentation of the mill is a painting believed to date to circa 1840 (see Figure 2-2). Although romantic in style, the landscape illustrated in the painting seems reliable in conveying the functional aspects of the site as well as the architectural features. The relationship between the mill and ford is clearly portrayed. The grade slopes up to the west from the creek to the mill and the road continues uphill toward a log building, the miller's house. A portion of land between the log building and the creek is fenced with a three or four rail wood fence. It is interesting that the north side of the mill, of great interest due to the presence of the mill wheel in this location, is obscured by vegetation. The emphasis of the eastern and southern elevations of the building in both Figures 2-1 and 2-2 imply the importance of this aspect of the building during the historic period. Figure 2-1 shows the carriage house (known today as the Peirce Barn) and cow barn (no longer extant). The topography and landscape character in the two images are markedly similar, despite slightly different vantage points. The photograph more clearly shows fences constructed of peeled posts and rails with four rails per section. In addition to a fence in a location similar to that indicated in Figure 2-2, Figure 2-1 also illustrates a fence running north-south on the west side of the carriage house (Peirce Barn).

In addition to farming and grist milling, Peirce operated a sawmill (c.1800). He appears to have set up this apparatus downstream from the gristmill site, near the tributary now referred to as Melvin Hazen. The sawmill race extended to the south downstream from the larger mill site. Once the gristmill had been constructed, the sawmill race passed just to the west side of the larger mill. By 1848 the sawmill was no longer in use and had been abandoned. A second sawmill was constructed during the 1860s by one of Isaac's descendants. While not designated on earlier maps (see Figures 2-4 through 2-6), the sawmill is the building shown to the northeast of the mill on Michler's 1866 topographical sketch (see Figure 2-7). This mill was located just north of the main mill building and utilized a short extension off of the main raceway, which had been constructed of local stone.[17] Other aspects of Peirce's enterprise included hauling hay, barley, flaxseed and other grains to local customers.[18]

Peirce also operated a nursery. In 1805 his prominent neighbor Uriah Forrest ordered from Peirce and Thomas Mann nearly seven hundred thornbushes, which were planted on Forrest's estate, Rosedale, to serve as livestock barriers and fences.[19] In 1814, Peirce advertised in the National Intelligencer that he had 20,000 engrafted apple tree cuttings available for purchase.[20] In 1821, Isaac apparently ceded his nursery operation to his youngest son, Joshua. At that time, he transferred approximately 82 acres located along the west side of Rock Creek about a half mile south of the mill site to Joshua. By 1824, Joshua Peirce had established the Linnaean Hill Nursery on his property, adjacent to his father's tract, where he cultivated for sale a variety of fruit and ornamental trees shrubs and plants.[21]

Figure 2- 2: Painting of Peirce Mill and Peirce Mill Road with ford in foreground, c. 1840. (Source: Rock Creek Park Historic Photograph Collection PM1-48)

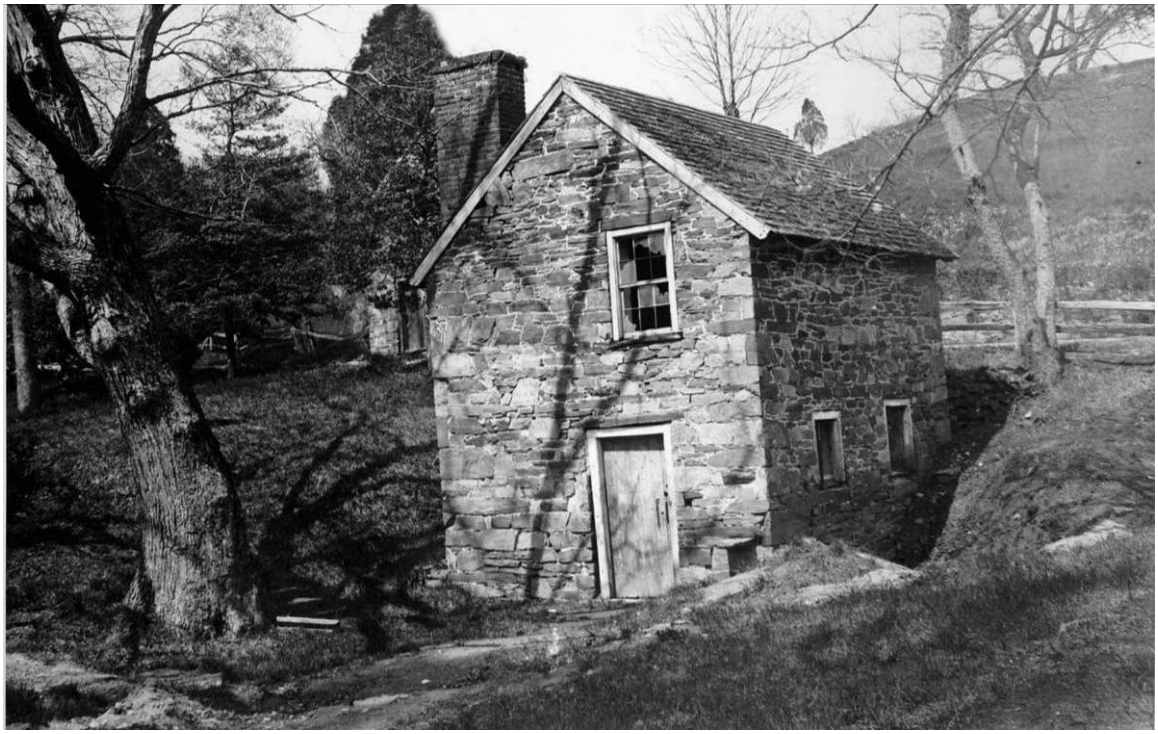


Figure 2- 3: Peirce Mill Springhouse, south and east elevations, ca. 1897. (Source: Rock Creek Park Historic Photograph Collection PM1-56)

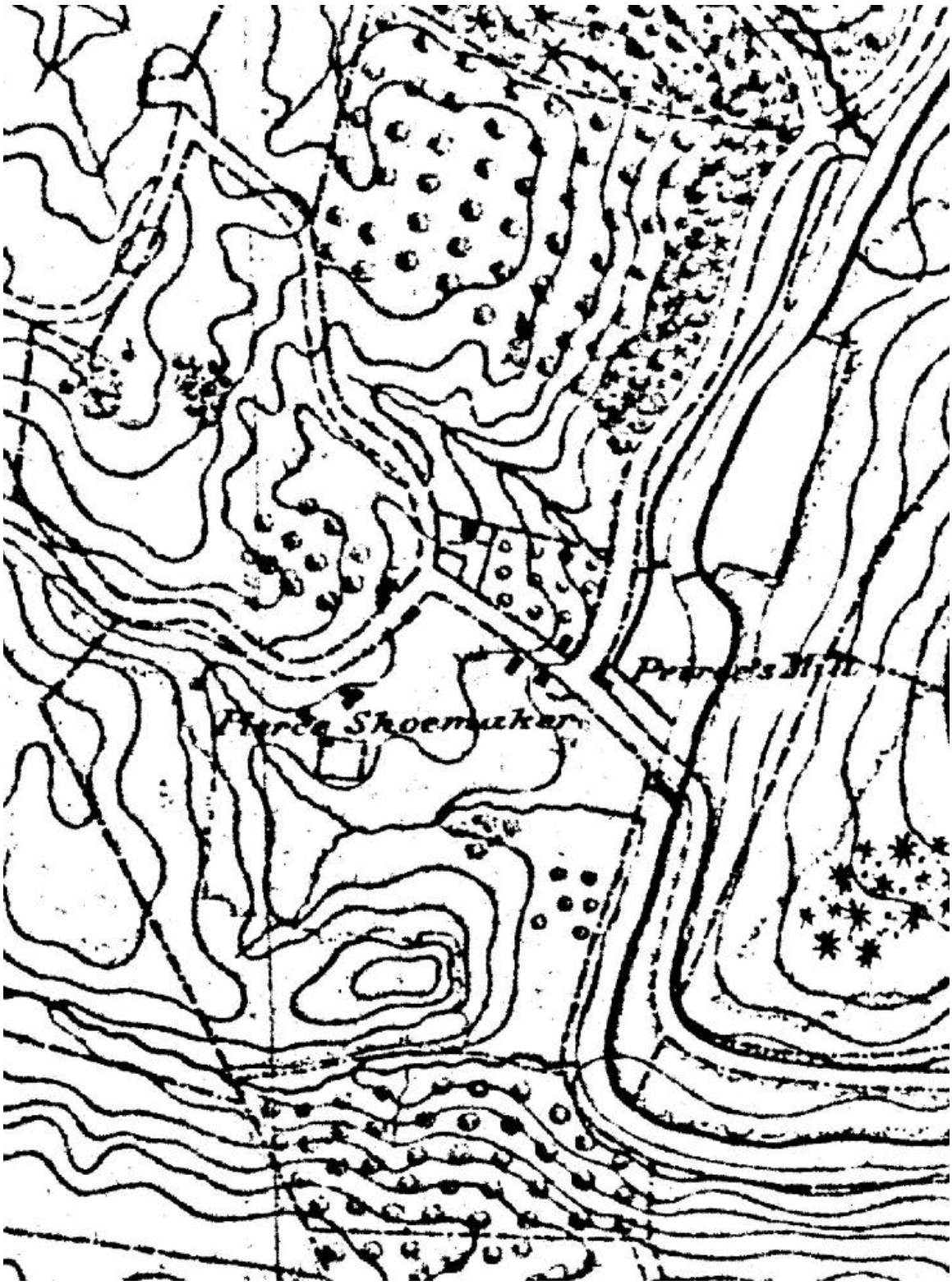


Figure 2- 4: The Boschke Map shows the cluster of buildings, the fields, orchards, and woodlands, 1861. (Source: excerpt from Boschke Topographical Map of Washington and its Environs, Library of Congress)

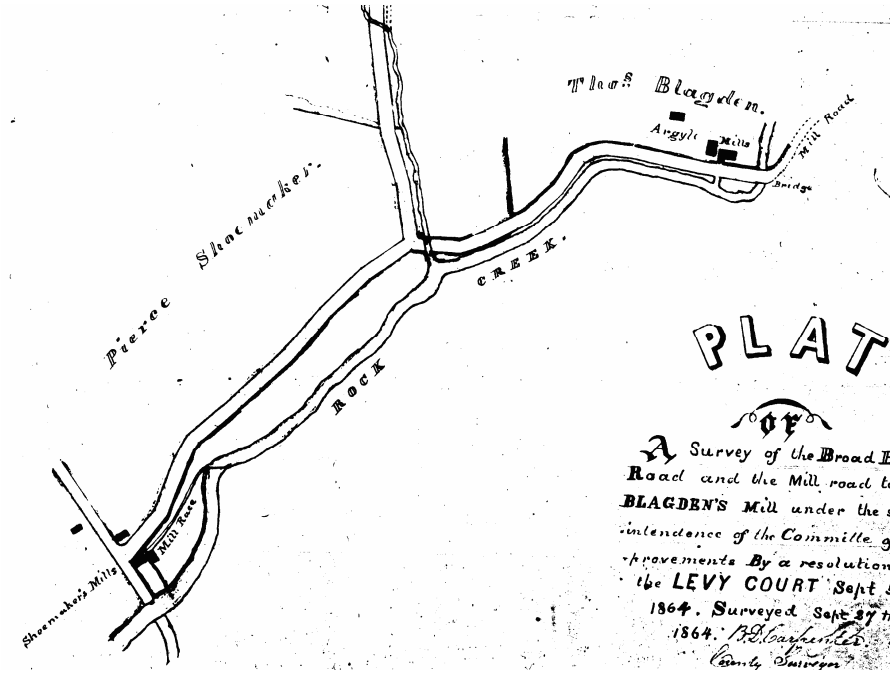


Figure 2- 5: B. D. Carpenter's Survey, dated 1864. (Source: Peirce Mill Historic Structure Report)

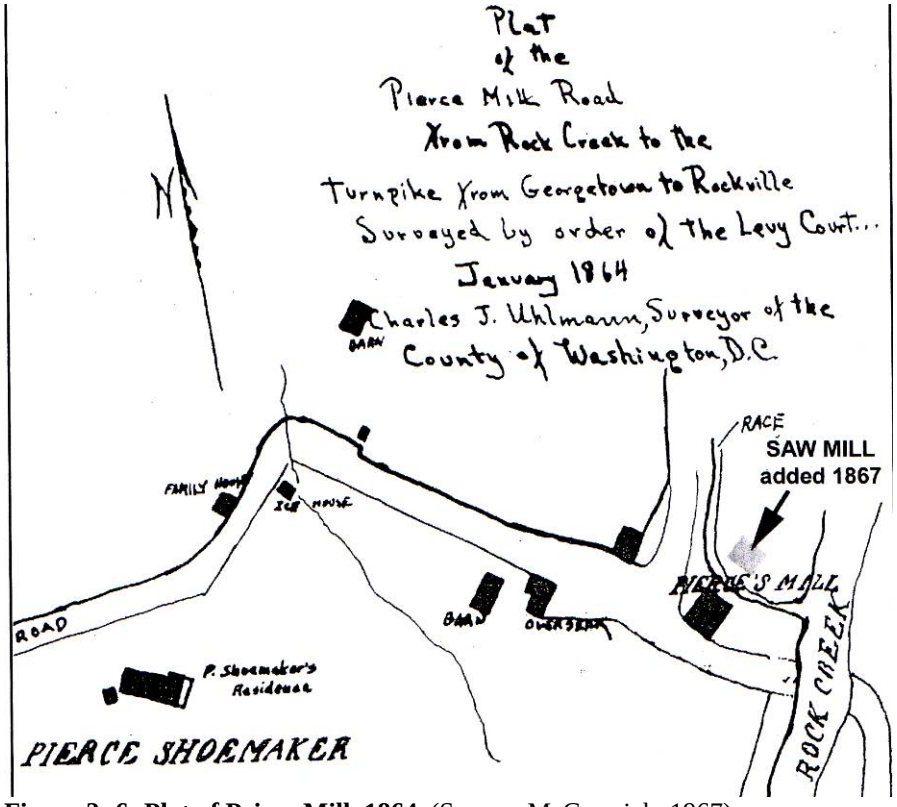


Figure 2- 6: Plat of Peirce Mill, 1864. (Source: McCormick, 1967)

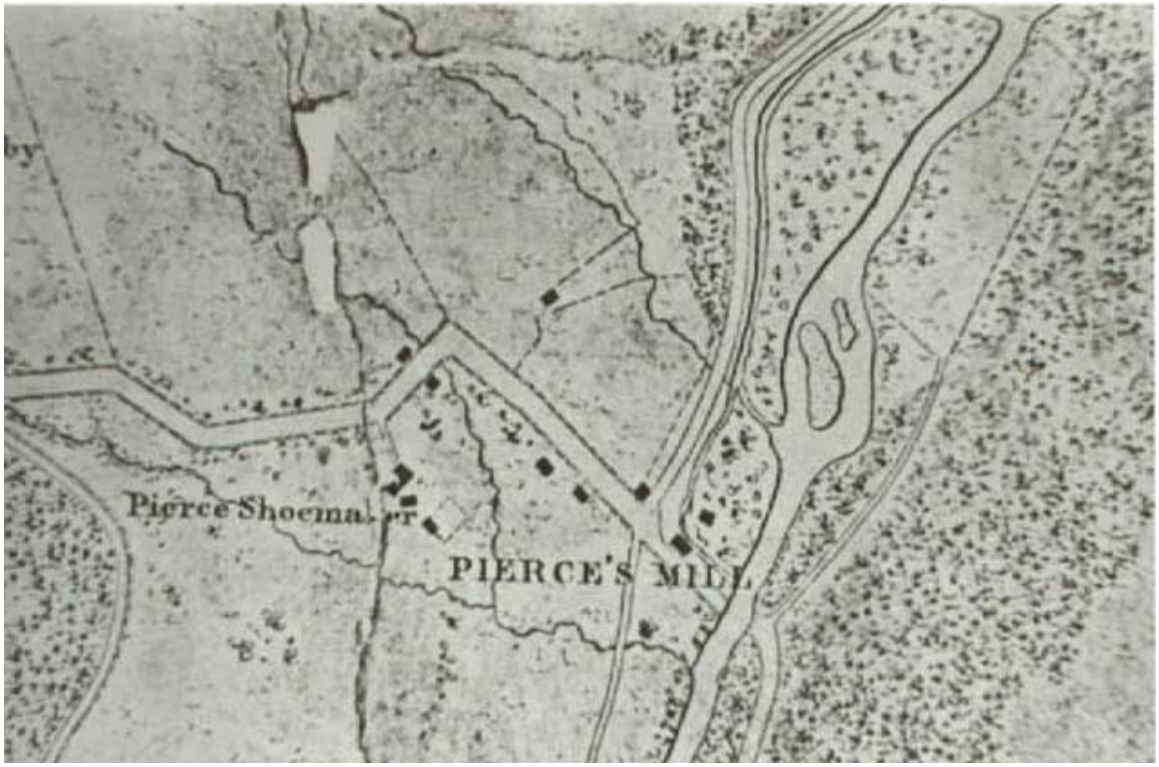


Figure 2- 7: The mill and other structures and their relationship to the road system and Rock Creek are indicated on Michler's 1866 'Topographical Sketch of the Environs of Washington.' (Source: National Archives)

The extent of Peirce's enterprise can also be measured by the size of his household. On the 1820 population census, he listed nine children, eleven slaves and four indentured servants. By 1830, his household had grown and consisted of 27 individuals, including one free Negro laborer and 14 slaves, one of whom may have been assigned to operate the mill. Documentation suggests that the mill may not have been leased to a miller/operator until around the time of the Civil War.[22]

Because Peirce's mill was a custom mill, the effect of its operation and that of the farmstead on the surrounding landscape was less industrial and more agricultural than might be presumed. Work yards, clusters of outbuildings, meadows, orchards, fenced spaces for garden plots and livestock barriers, and other unidentified features, such as a burying ground, were all interspersed with the features associated with the mill.[23] The mill features included the dam and stone raceway, the stone mill and sawmill structures, the creek ford, fences and the roads leading to and from the mill site.

For most of the nineteenth-century, Peirce Mill Road passed directly south of the gristmill and crossed the creek via a ford (see Figures 2-4 through 2-7). Its route ran west to east and connected the two sides of the growing Federal city. Contemporary Tilden Street and Springland Lane represent traces of the western segment of Peirce Mill Road. The alignment of the eastern segment of Peirce Mill Road followed a route similar to portions of today's Beach Drive and Park Road.

In 1839 a north/south road was laid out along the west side of the creek (see Figures 2-4 through 2-7). This route linked Peirce Mill Road and the mill site with a road located to the north at Broad Branch (the route is utilized as a multi-use trail today). In 1854, Broad Branch Road was extended to the northwest following the course of this stream. These two road improvements meant that mill customers coming from the northwest traveled down Broad Branch Road to the intersection of Broad Branch and Rock Creek and then continued south along Rock Creek following the west side of the millrace to the mill.[24]

By the mid nineteenth-century the mill enterprise had been owned and operated by members of the Peirce family for some 54 years. After Isaac's death in 1841, the mill seat of 960 acres had passed to Isaac's son Abner Cloud Pierce. The 1850 census shows that he had 80 acres of "improved" land and 880 acres of "unimproved" land, which included pasture and woodland. Abner, a stonemason by trade, owned eighteen slaves, five horses, three mules, five “milch” cows, four working oxen and other cattle, as well as 50 sheep and 19 swine. He had relatively high rates of production on his property. Abner grew a variety of grains, which included large quantities of wheat and corn and smaller amounts of rye and oats. He raised bees, cultivated potatoes, and made 156 pounds of butter. He does not appear to have been engaged in commercial fruit growing, perhaps leaving that process to his brother Joshua Peirce at Linnaean Hill.[25]

Peirce Shoemaker inherited the farm and mill from his uncle Abner in 1851. Although Shoemaker was a jeweler by trade, he directed the farm operation and increased the number of acres in cultivation from 80 to 120 acres during the first decade of his ownership. Prior to the abolition of slavery in the District of Columbia in 1862, Shoemaker owned 20 slaves. After the Civil War the farm operation decreased in size, but the land increased in value.[26] By 1870 his property consisted of 100 acres of "improved" land, 400 acres of woodland, and 108 of other "unimproved" land and no allotment for an orchard. Although the census lacks information on orchard production, the 1861 Boschke map indicates that an orchard was located on the slope northwest of the mill. In 1880, the number of "improved" acres remained the same, with one acre devoted to an apple orchard.[27] During this time, Peirce Shoemaker continued the practice of leasing out the milling operation, receiving rent and sharing in the profits.[28]

Research conducted by Charles McCormick indicates that by 1870, Peirce Mill may have been operating as both a custom and a merchant mill. McCormick concluded that in one eleven-month period the mill's three buhr stones may have produced quantities of corn, offal (animal feed), wheat, rye for market and offal, corn, rye, meal and flour for custom grinding. Two brothers, Alcibiades and Charles White, operated the mill with the assistance of one laborer. The mill had been improved in 1876 by replacing the wooden wheel with a 45 horsepower Leffel Turbine, which could better generate an adequate supply of waterpower. This change may have been precipitated by the failure of the wooden crib dam. A new location for the dam was selected further downstream, closer to the mill site. Over time, three or four timber crib and stone fill dams were subsequently constructed in this location.[29] The 1880 agricultural census reveals that, with the new mechanism and dam location, the primary production of corn meal and feed was divided

evenly between market and custom grinding. The value of the grinding was $8,250 that year.[30]

Improvement in the circulation around the mill site came in 1872 when a wood truss bridge was constructed immediately south of the mill and the creek ford. The bridge piers and abutments were constructed of granite that probably came from the Peirce quarry located on Broad Branch. Peirce Mill Road was realigned to meet the bridge crossing, although the ford continued to be used. Shortly thereafter, Linnaean Hill Road (currently Park Road) was constructed as a more direct easterly extension of Peirce Mill Road and the older, more circuitous section of Peirce Mill Road that followed the eastern bank of the creek was abandoned. The construction of the bridge piers and their abutments increased the elevation of the grade just south of the mill. The effect was to create a more bowl-like depression around the mill and, with the bridge span, further separate the mill from the meadows south of the road.

The mill continued to operate until 1897, when the shaft on the turbine broke. At that time the mill site had been incorporated into the newly created Rock Creek Park. Sometime prior to the 1890 legislation establishing the park, the mill apparently underwent several structural alterations. These may have been done in conjunction with the addition of the turbine in 1876. According to examinations made during the 1930s restoration, the dormer windows were added, the chimney recapped and probably lowered, and the sash may have been changed (see Figure 2-8).[31] The elimination of the sawmill structure and apparatus, as well as its foundation and "the waterway leading to it" may have also occurred around 1876, when the dam was first relocated and the turbine added. The last of the old crib dams that served the mill in the final years of its operation washed out in 1899.[32] "The washout caused considerable caving of the creek banks and converted that portion of the creek below it [the old dam] to a barren and rather ugly bed."[33]

The other significant change that occurred during Peirce Shoemaker's ownership of the estate was the addition of a new modern residence. In 1876 he replaced the old Peirce house, the picturesque structure of "hand-hewn oak" built by Isaac, with a new stone structure called "Cloverdale." The new structure occupied the site of the old home, southwest of the springhouse.[34] At the time of his death in 1891, Peirce Shoemaker held title to 800 acres of land. Approximately three hundred and fifty of these acres were incorporated as a portion of Rock Creek Park in 1892.

Figure 2- 8: Peirce Mill, east elevation, ca. 1897, showing dormers. (Source: Rock Creek Park Photograph Collection PM2-60)

1891-1932

At the close of the century, the Rock Creek Valley, as it extended from the northern end of the National Zoological Park to the Maryland line, was transformed from a collection of individual farms, homesteads and mill sites to a national park that could serve the recreational needs of the citizens of the District of Columbia. Even before the creation of the park, the area around Peirce Mill had been a gathering place for relaxation and passive recreation. According to one tradition, the mill had been a popular spot for picnicking, fishing, bird watching, painting, walking and collecting chestnuts. A thirst-quenching drink of apple cider was known to have been offered to those visiting Peirce Mill. In addition, the mill served the community in other ways: barn dances were held on its second floor and the grounds were used by local militia and fire companies for drilling.[35]

Figure 2- 9: Bicylists on Peirce Mill Bridge, ca. 1895; image shows miller's house in the background. (Source: CLI 2003)

The land associated with Peirce Mill that was transferred from the Peirce Shoemaker estate to the Federal government in 1892 consisted of three parcels totaling more than 24 acres. Five of the old Peirce buildings conveyed as well, including the mill, the wagon barn, the miller's house, the springhouse and the small unidentified outbuilding. Land surveys indicate that the Peirce Mill property was mostly low, flat land, "subject to overflow" lying along both sides of Rock Creek. A steep hillside "partly thick with forest" lay directly behind the "stone barn," or wagon barn.[36]

The Rock Creek Board of Control was established in 1894 to oversee the administration of the park. The Board represented the District of Columbia Commissioners and the Army Chief of Engineers in all park matters. Members on the board included the engineer commissioner and his assistant engineer officer. The assistant engineer had direct responsibility for managing the park.

A major alteration to the landscape around the mill occurred in 1895 when the wood truss bridge across the creek was replaced with one constructed of steel girders faced with stone (see Figure 2-9). This new construction added a significant increase in grade of almost six feet at both ends of the bridge (see Figure 2-10). Stone wing walls were added in 1912 to contain the fill used in the grade adjustment at the bridge approaches. Because Pierce Mill Road was a public road, the District highway department, independent of the Rock Creek Board of Control (the administrative organization of the new park) made these changes to the bridge crossing.[37]

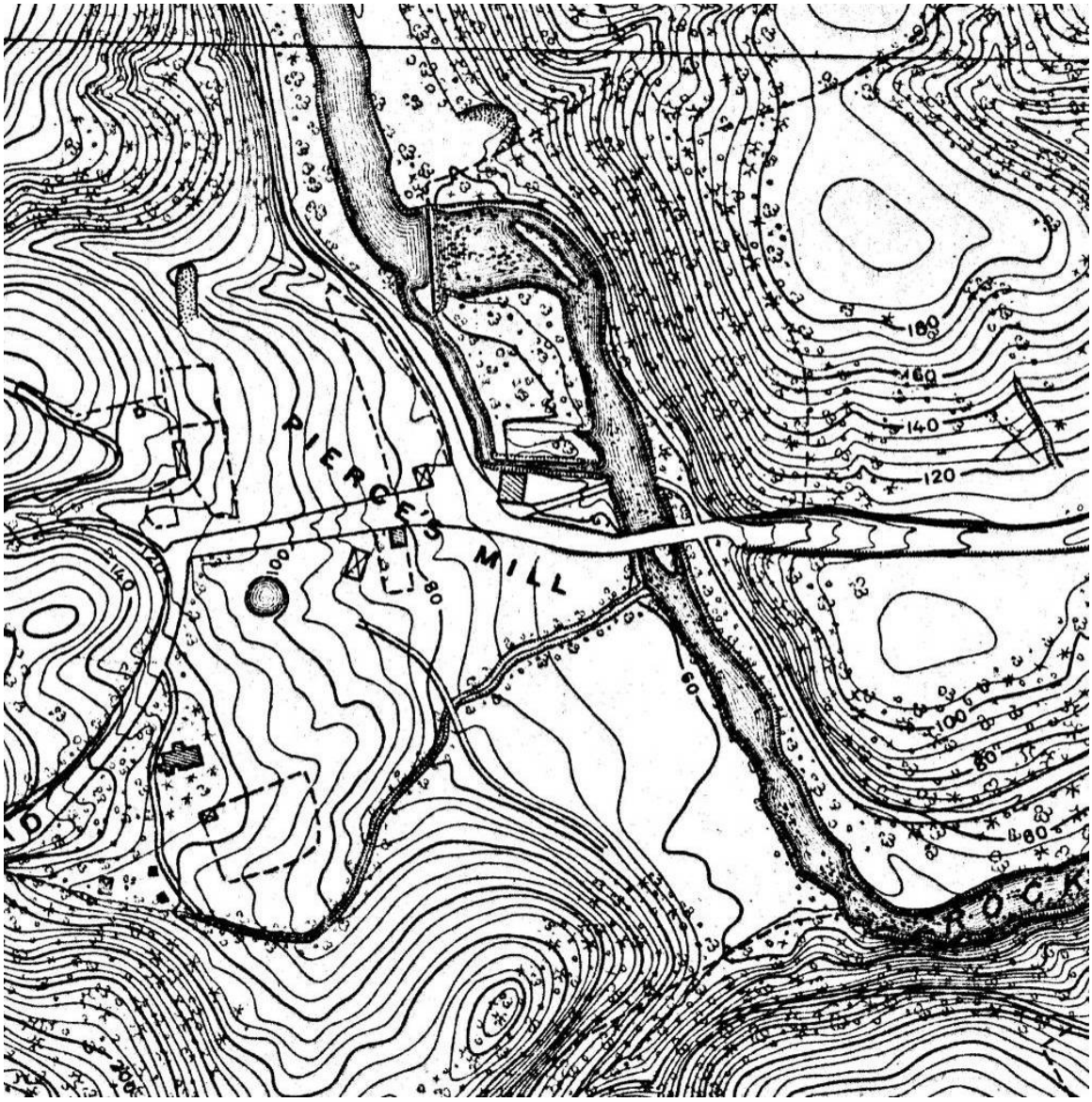


Figure 2- 10: Coast and Geodectic Survey, District of Columbia, 1893. (Source: Peirce Mill Historic Structures Report)

The first improvement initiated by the engineer managers of the Rock Creek Board of Control that affected the Peirce Mill area occurred in 1899. This project involved the grading of an original segment of Peirce Mill Road, the one leading north from Klingle Road along the east side of the creek to the mill. Two years later the road along the west bank that connected Peirce Mill, Broad Branch and the ruins of Blagden Mill to the north was graded as well. Both of these old routes were macadamized in 1901 and were designated Beach Drive. Between 1902 and 1909, managers established trails and paths through the park for horseback riders and pedestrians. Several of these led to the area around Peirce Mill.[38] Some were developed from nineteenth-century routes, such as the abandoned road between Linnaean Hill and Peirce Mill. One trail paralleled the west bank of the creek north of the mill and lay over the old nineteenth-century millrace. A rustic style footbridge, near the site of the old dam just south of Broad Branch, was

constructed in association with this trail. Another trail incorporated the old ford crossing adjacent to the mill. By improving existing roads, making trails out of existing paths, and utilizing the existing topography, access to the already popular Peirce Mill was enhanced and visitor use increased.[39]

As early as 1902, proposals for the rehabilitation of Peirce Mill circulated in the press. In 1903 Louis Shoemaker, the son of Peirce Shoemaker, advocated the preservation of the mill as an historic attraction used to interpret the early industry of Rock Creek Valley.[40] However, the initial effort to improve the setting at Peirce Mill had more to do with creating a picturesque park destination point and less to do with the preservation of the site. In 1904, a new dam was constructed a short distance upstream, within view of the mill (see Figure 2-11). The dam was built on a rock foundation and had concrete walls, faced with rounded boulders of the same granite stone as that used on the Peirce Mill bridge. It had a waterfall of some six to seven feet.[41] With its pleasant sound of falling water, its rustic appearance, and its close proximity to the mill, the dam was clearly designed to be a picturesque water feature and park enhancement rather than a source of waterpower for a "restored" mill. Stone wing walls were added to the Peirce Mill dam in 1905. The other early park improvement that had impact on the mill site was the 1902 construction of a melan arch concrete bridge known as Pebble Dash Bridge, because of its “sandy colored brushed concrete and pebble finish.” Designed by Washington architect Glenn Brown, the bridge spanned the mouth of the Broad Branch tributary and, in conjunction with a ford crossing, served to facilitate traffic circulation north of Peirce Mill at the intersection of Broad Branch and Beach Drive. Pebble Dash bridge was removed in 1958 as one of Rock Creek Park’s Mission 66 bridge improvement projects.[42]

Figure 2- 11: Peirce Mill dam, facing northeast, post 1904. (Source: Rock Creek Historic Photograph Collection PM2-61)

Ideas about restoring the mill evidently faded, while efforts to enhance the mill site as a park destination point increased. Sometime around 1905, a Miss F. Todd operated a tearoom from the mill rent-free and without permit. In 1909, Mary Louise Noble obtained a permit from the Board of Control to operate a "restaurant" in the former mill, which she did until 1917. After Noble, Mrs. Florence Ingraham Blake leased the property from1918 and 1919. The tea room enterprise continued to operate through a succession of tenants and concessionaires, including the Girl Scouts Association (1925), until 1934.[43] Other attractions included a "Red Cross Station," which utilized space within the building around 1909, and the addition of a "temporary public convenience shelter in 1912."[44] Analysis indicates that the first comfort station was constructed slightly north of the wagon barn in 1917.

The conflict between designating the grounds around the mill for picnicking and passive recreation versus using them in the interpretation of the historic site resurfaced in 1914. At this time features associated with the exterior of the mill were in thorough disrepair. The wheel no longer functioned, timbers had rotted, and the stone-lined raceway required excavation.[45] Without Board approval, the park's manager directed crews to fill in the millrace with the dirt and debris from a nearby sewer-trenching project. On the one hand he stated that "it is a mistake to assume that the building known as Peirce Mill should be perpetually kept in all respects as it was found when the park was purchased." And on the other, this engineer considered his initiative a relatively minor change that would make the grounds around the mill more accessible to picnic parties.[46] The Board of Control continued to envision the mill as a possible "shelter, recreation center, and perhaps a bandstand." Some minor repairs were made to the structure in 1917.[47]

As late as 1908, Peirce Mill Road continued to run from the mill site westward between the two small stone buildings, the small unidentified outbuilding and the springhouse, which lay within the boundary of the park.[48] Between 1913 and 1916 Tilden Street, a four lane city through route with a planted median, was laid over the historic western segment of Peirce Mill Road. The construction of Tilden Street caused the removal of the unidentified outbuilding.[49] A three-sided stone retaining wall was constructed around the springhouse to protect it within the median strip. Other physical changes that occurred relative to the circulation in the area of the mill included the surfacing of the bridge with asphalt in 1921. Pipe railings were also added to the bridge in 1921. Sidewalks were not and have never been incorporated into the bridge's design.[50]

In 1918 Rock Creek Park was transferred from the Board of Control to the park system of the District of Columbia under the jurisdiction of the Chief of Engineers. The management of the park fell under the Office of Public Buildings and Grounds (OPBG). Just prior to this transfer, the Board of Control commissioned the Olmsted Brothers, the notable landscape architecture firm from Brookline, Massachusetts, to study and prepare a report with recommendations on the future development of Rock Creek Park. In 1918, after extensive reconnaissance work and analysis and evaluation of the entire park, the firm submitted its report to the Office of Public Buildings and Grounds. A photograph of the dam at Peirce Mill during the reconnaissance is shown in Figure 2-12.

Figure 2- 12: Peirce Mill dam facing northwest, taken by Olmsted Brothers, 1917. (Source: CLI 2003)

While the Olmsted Report discussed the valley, meadowlands, and the development of picnic groves, the document did not specifically address the areas around existing historic structures such as Peirce Mill (see Figure 2-13). The area on the west side of the creek, north and south of the mill site fell into the landscape unit designated in the report as Type V, an area of "generally open grass land." The area lying directly along the west bank above the 1904 dam and on the east side of the creek above and below the bridge qualified as Type II-R , "where river bottom prevails."[51] The designations were based on the reconnaissance notes, which indicated that a "nice meadow" lay on the west side of the creek, south of the mill.[52]

The only reference to the Peirce Mill area in the 1918 report concerned circulation and the existing bridge. In particular the report examined eliminating the bridge in favor of a new east/west automobile route through the park. "The junction at the east end of Pierce's Mill bridge is blind and dangerous: and we have suggested that this bridge, and the Pierce's Mill Road at either end of it be abandoned and a new bridge built in a more open place some five hundred feet further down stream. As part of this change the approach from Tilden Street would be modified." The Olmsted proposal called for the new crossing to be a high viaduct constructed above the floor of the creek valley.[53] While

the viaduct proposal was never implemented, the Olmsted's work served as the management plan, and later master plan, for the park until the 1940s.

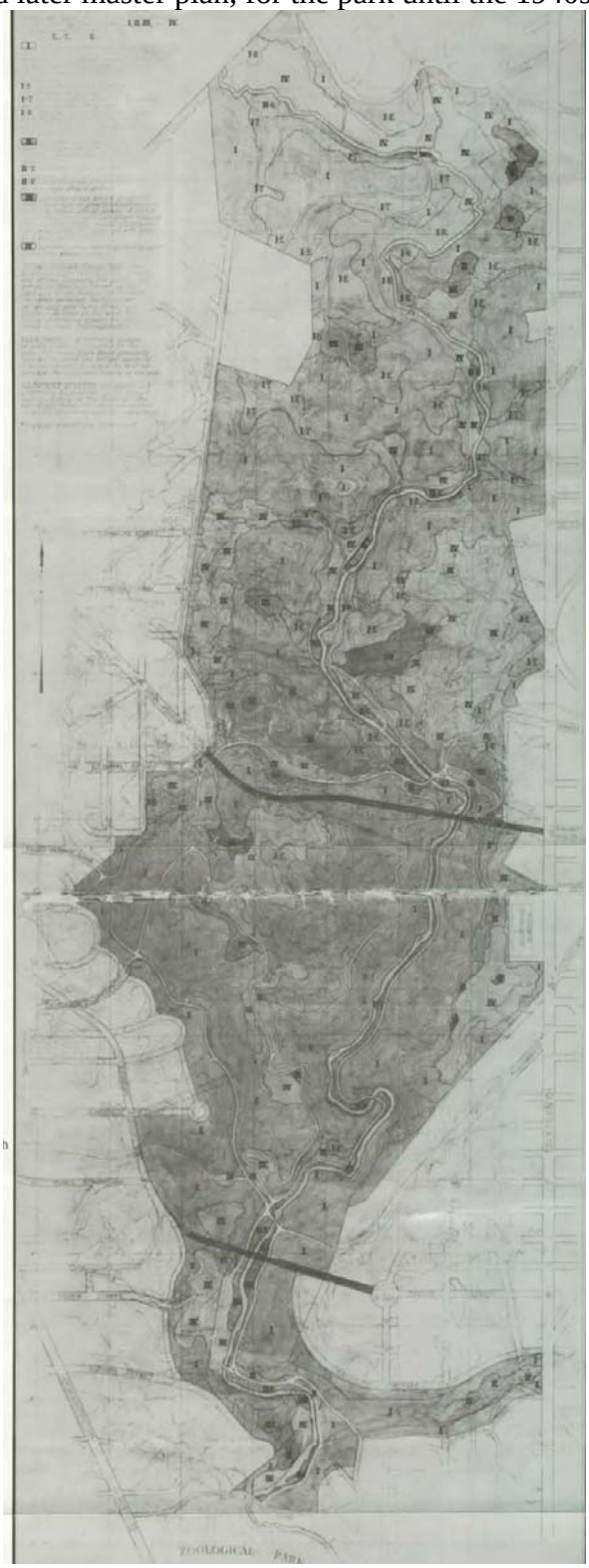


Figure 2- 13: Olmsted Brothers Plan for Landscape Units at Rock Creek Park, December 1917.
(source: National Park Service, 821-25000-DSC-Sept 90)

In 1919 the Officer in Charge of the OPBG, Col. Ridley, directed the organization's architect, Horace Peaslee, to develop plans for the improvement of Pierce Mill. A survey completed in that year documents the existing conditions of the landscape (see Figure 2-14). Peaslee's preliminary assessment of the mill noted the deteriorated condition of the remaining structural elements and stated that what remained was "probably enough to materially help create the proper atmosphere within." Yet he questioned "whether or not it would be well to attempt, for the sake of historical record, to put back, without competing with the new function of the property, the essential parts of an old-time mill." In his final proposal, Peaslee included a water wheel restoration, rather than reusing the "unpicturesque turbine," to create the picturesque atmosphere needed for the adaptive use of the mill as inn or coffeehouse with outdoor dining.[54] His 1919 plans for the grounds showed a designed landscape that incorporated symmetrical formality with the "intrinsic charm of the naturalesque."[55] Although Peaslee's recommendations were not adopted, his proposal for the grounds underscored park priorities: the need for a unifying landscape design and separate circulation patterns (pedestrian, automobile and horseback riding) around the mill.[56]

By the 1920s significant landscape features at Peirce Mill included the cluster of three historic buildings (mill, wagon barn, and springhouse), comfort station, designated picnic groves, fencing, and site furnishings. A stone fireplace was constructed for the public's use in the area next to the mill in 1922-23. Other fireplaces were added soon after to the picnic grove on the east side of the creek and to the one located on the west side, south of Tilden Street. A rustic picnic shelter was also constructed in this grove as well. During 1925 and 1926, the Office of Public Buildings and Public Parks (OPBPP), the successor to the OPBG, set up playground equipment (slide, swing set, seesaw) in the open area near the shelter. In that same year, 144 rustic settees and 42 tables were constructed for visitor's use; some of these were probably placed in picnic areas at Peirce Mill.[57] Figure 2-15 illustrates a couple picnicking near the Peirce Mill Dam, ca. 1920.

Throughout the 1920s and early 1930s, park managers worked to improve and maintain the condition of the mill for the tea room operation. Electric lighting (1921), the addition of a one-pipe heater (1922-23), and a kitchen remodeling (1926-27) were among the improvements. In April 1927, the Welfare and Recreational Association received the concession to operate the tearoom. This organization was actively involved with the construction of subsequent improvements to the structure.[58]

In 1931, the Welfare and Recreation Association completed alterations to Peirce Mill that had been designed by the OPBPP staff to enhance the concessionaire's operation of the tearoom. Several changes were made to the interior, but the addition of a large one-story screened porch on the north side of the mill, in the location of the old water wheel, was by far the most significant change (see Figure 2-16). Two landscape improvements related to these structural changes occurred between 1929 and 1930: "a quantity" of existing holly trees were removed and relocated to improve visibility and eliminate traffic hazards at the bridge intersections; and locations for planting native trees such as dogwood, fringe tree, and redbud were staked as well.[59]

Figure 2- 14: Survey of Peirce Mill Grounds, 1919 (source: National Park Service, Technical Information Center, ROCR 821_83001) Note: the image is oriented so that north is to the top of the page.

Figure 2- 15: Couple picnicking by Peirce Mill Dam, facing northeast, ca. 1920 (source: Library of Congress)

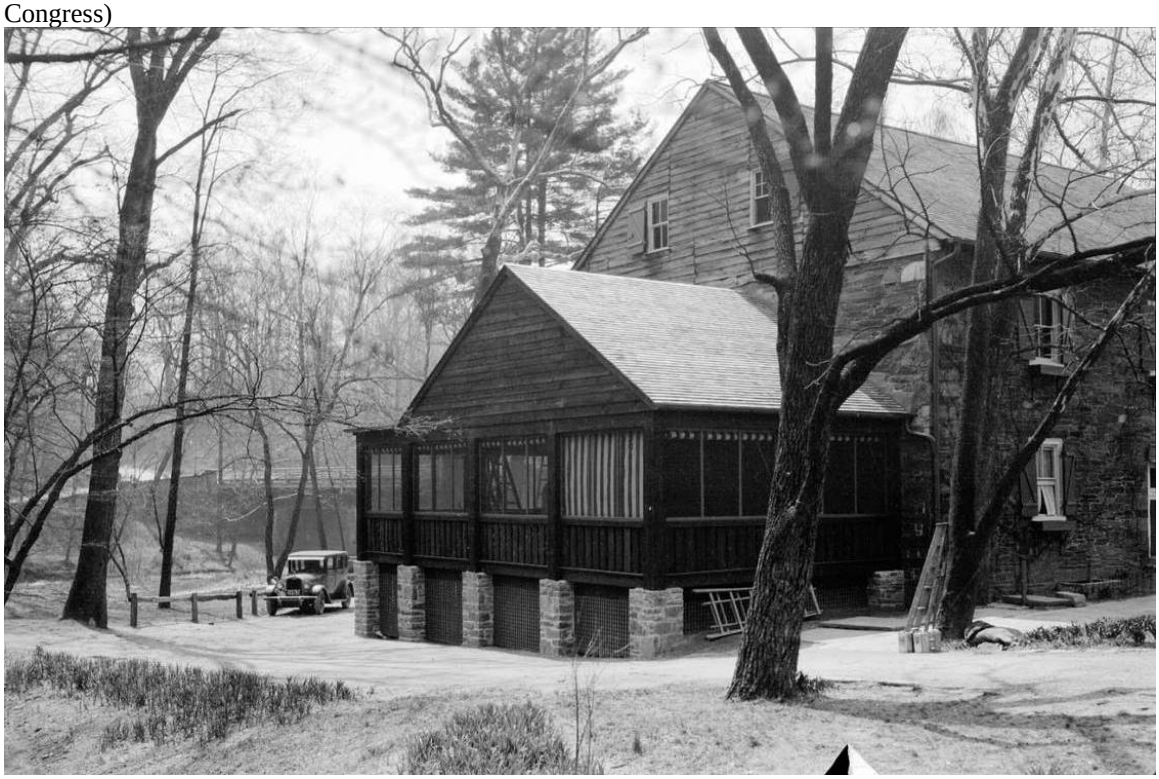


Figure 2- 16: The tearoom addition to Peirce Mill, added 1931, demonstrating development of the park as a picturesque park destination point. (Source: Rock Creek Park Historic Photograph Collection PM1-30, 16.50-3)

1933-1950

In August 1933, Rock Creek Park and all the Federal parkland in the nation's capital became part of the organization known as National Capital Parks, a division of the National Park Service (NPS) in the Department of the Interior. This reorganization of public lands was carried out as part of President Roosevelt's "New Deal for the American People." A major component of the New Deal was the creation of large-scale public works projects. Among these was the improvement of national and state parks. The Civilian Conservation Corps (CCC) and the Public Works Administration (PWA), which provided manpower and funding, were established to implement the parks projects.

The National Park Service brought new design and planning skills, as well as administrative expertise, to their stewardship of Rock Creek Park. National Park Service architects and landscape architects developed programs to improve or rebuild structures, roads, trails, footbridges and site furnishings using CCC labor and PWA funding. Charles Peterson, then chief of planning and design for the Eastern Division of the NPS, identified Peirce Mill as a structure worthy of restoration. The newly established Historic American Building Survey (HABS), also part of the National Park Service, initiated the survey and collection of historic documentation about the mill in 1934. A view of the east elevation of Peirce Mill in 1933 is provided in Figure 2-17.

Figure 2- 17: Peirce Mill, east elevation with simple rail fence and bench, 1933. Note the dormers and vegetation at the building foundation. (source: National Archives)

Once approved by the Director and by the Secretary of the Interior, the restoration of Peirce Mill became one of the first architectural preservation projects undertaken by the National Park Service. As a direct result of the establishment of HABS, the Eastern Division of the Branch of Designs and Plans under architect Peterson completed a limited number of historical restorations. The architectural restoration at Peirce Mill was supervised by Thomas T. Waterman, a notable American architect associated with the early years of the preservation movement.

> *The structure had deteriorated during forty years of idleness and use as a tearoom, but it had the advantage of being a typical waterpower mill, and therefore, its restoration was less subject to dispute than is the case with more stylized buildings. There was little disagreement over plans to replace doors, stairs, the chimneystack, stone window stools, and hardware inside or the head and sluice gates outside the walls. Peirce Mill gave the National Park Service a cause that was easy for the nation to accept; it was an industrial site with the romantic overtones of a tree-shaded stream running through a city park.*[60]

Work to restore Peirce Mill as a functioning example of a nineteenth-century gristmill began in 1934 and was completed by 1936 (see Figures 2-18 and 2-19) In November the tearoom porch was removed from the mill, so that a mill wheel could be replicated in the historically accurate location on the north facade. In 1935, J.S. Fitz of Hanover, Pennsylvania designed the replacement mill machinery using as much original and/or old material as possible. Fitz also consulted on the design for the forebay and penstock and on the width of the water wheel. While most aspects of the architectural restoration were relatively easy to execute, treatment of the mill's historic landscape features was more problematic. For instance, the original estimate of the cost to restore the mill had not included the expense of replicating the original dam.[61]

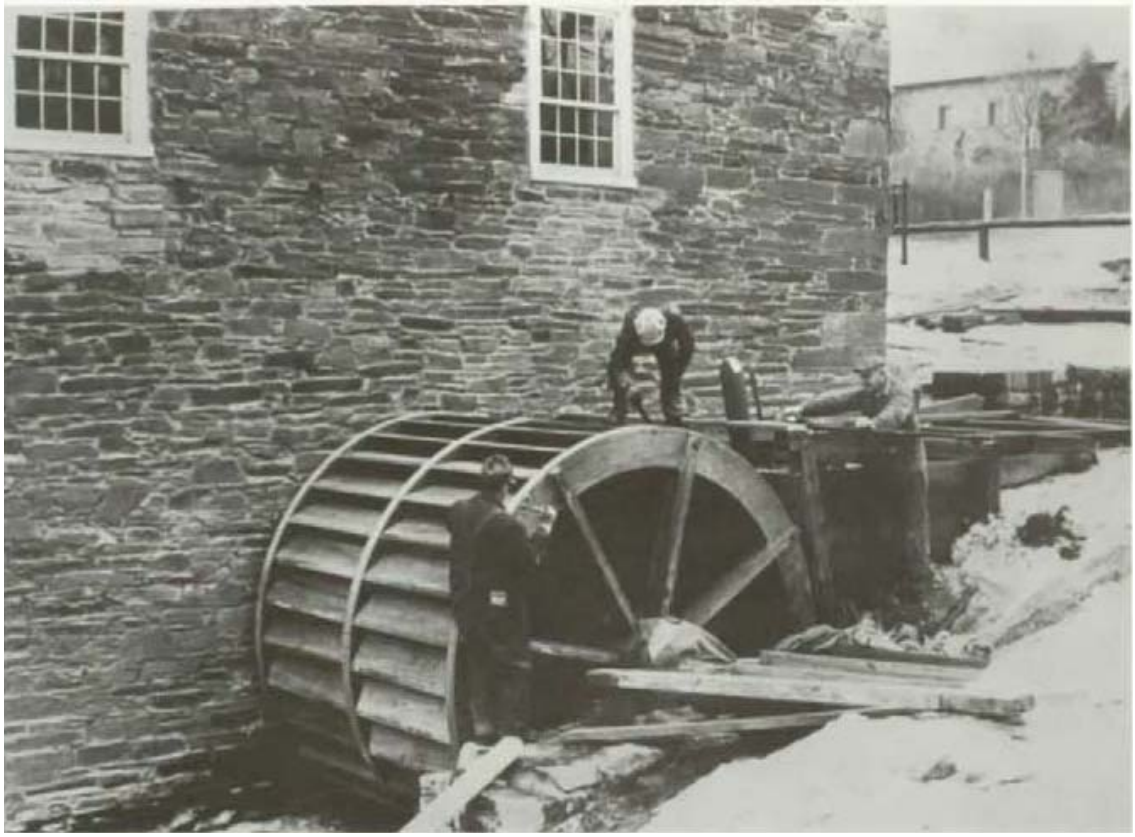


Figure 2- 18: Restoration of the Peirce Mill wheel, 1936 (source: Library of Congress)

Figure 2- 19: Civilian Conservation Corps crew working on the grounds of Peirce Mill, 1935. (source: Rock Creek Park Nature Center Collection)

A planting plan for the site was initially prepared in July 1935, revised in October 1936, and approved in February 1937 (see Figure 2-20). Rather than emphasizing restoration of historic site features, the plan addressed the landscape as a support element to the mill restoration. The plan reveals an emphasis on improving recreational opportunities, beautifying the site by adding ornamental vegetation, replicating the original dam, and providing a functional mill race. The new mill race and dam were intended to supply water to the restored mill. Although the millrace was reportedly relined with stone "following exactly the fragments of the original [race]," comparison of early diagrams illustrating the millrace location to the 1935 planting plan imply that a portion of the new mill race did not follow the historic route.[62]

Consideration of Boschke's 1861 map (Figure 2-4), Carpenter's 1864 survey (Figure 2-6), Michler's 1866 map (Figure 2-5), and the 1893 District of Columbia Coast and Geodectic Survey (Figure 2-13), indicates that the differing scales, styles, and emphasis of these maps on landscape features makes comparison difficult. In fact, the alignment of Rock Creek differs markedly in the diagrams. Nevertheless, comparison of the diagrams to the 1930s planting plan provides some insight regarding the millrace. Of particular interest is the apparent existence of three connections between the millrace and creek in the Boschke and Michler plans. Particularly on the Michler plan, it appears that the headgate was farther upstream from the mill, and that the middle connection, which curved from the millrace to the southeast toward the creek, may have been an overflow route. The third connection is the tailrace. The Boschke map is less detailed and harder to decipher, but it appears that the raceway extends to Broad Branch, has a second connection to the creek in a similar location to that shown in the Michler plan, and a third at the tail race. A line shown across the creek just downstream of the second connection is likely to represent a dam.

When the planting plan was prepared, a rock garden was in place on the slope immediately south of Peirce Mill (see Figure 2-20). The plan indicates replacement of the rock garden with native groundcover species including Solomon's seal (Polygonatum sp.), Jack-in-the-pulpit (Arisaema triphyllum), May apple (Arisaema triphyllum), violets (Viola odorata), trillium (Trillium sp.), and trailing arbutus (Epigaea repens). The area to the east of the mill was to be "treated as a meadow" with a planting of blackeyed Susan (Rudbeckia hirta), daisies (Bellis perennis), buttercups (Ranuncunus sp.), Joe-Pye-Weed (Eupatorium sp.), voilets (Viola odorata), chicory (Cichorium intybus), gayfeather (Liatris sp.), bluets (Houstonia sp.), and yarrow (Achillea millefolium). On the banks of the mill race a ground cover of gill over-the-ground was to be planted. Masses of shrubs were specified along the edge of the creek to the east of Peirce Mill, as well as on the north side of the tailrace. Shrub species specified included: smooth alder (Alnus rugosa), spicebush (Benzoin sp.), buttonbush (Cephalanthus occidentalis), red-dosier dogwood (Cornus stolonifera), hazelnut (Corylus Americana), strawberry bush (Euonymus americanus), witch hazel (Hamamelis virginiana), elderberry (Sambucus Canadensis), maple leaf viburnum (Viburnum trilobum), arrowwood (Viburnum dentatum), black-haw (Viburnum prunifolium).

The plan illustrates existing trees to be preserved. These are spaced intermittently throughout the areas to the east and north of Peirce Mill. Along the bank of the creek north of Peirce Mill ornamental grasses are to be replaced with masses of shrubs alternating alternated with open areas, guiding views toward the creek and creating a picturesque landscape. In an open area north of the mill that had been used since before 1919 for picnics (see Figure 2-20) the planting plan indicates "this area to be cleared of all unnatural features and restored to a natural state." The plan calls for relocation of the bridle trail from the edge of the creek to the western side of the mill race between the new millrace and the road. The bridle trail continued along the western side of the mill, curved to the south, and proceeds under the bridge. On the walls of the new mill race, Virginia creeper was to be planted.

Figure 2-21 is a topographic plan of Peirce Mill and Tilden Street prepared in July 1935. This plan illustrates the low area north of the tailrace that may have been related to the sawmill operation. Another design for the site is illustrated in Figure 2-22. Although the date is difficult to read, it appears the drawing was prepared in 1937. This drawing was prepared over the base illustrated in Figure 2-21, and illustrates several proposed changes to circulation routes, as well as a proposed mill yard between Peirce Mill and Peirce Barn.

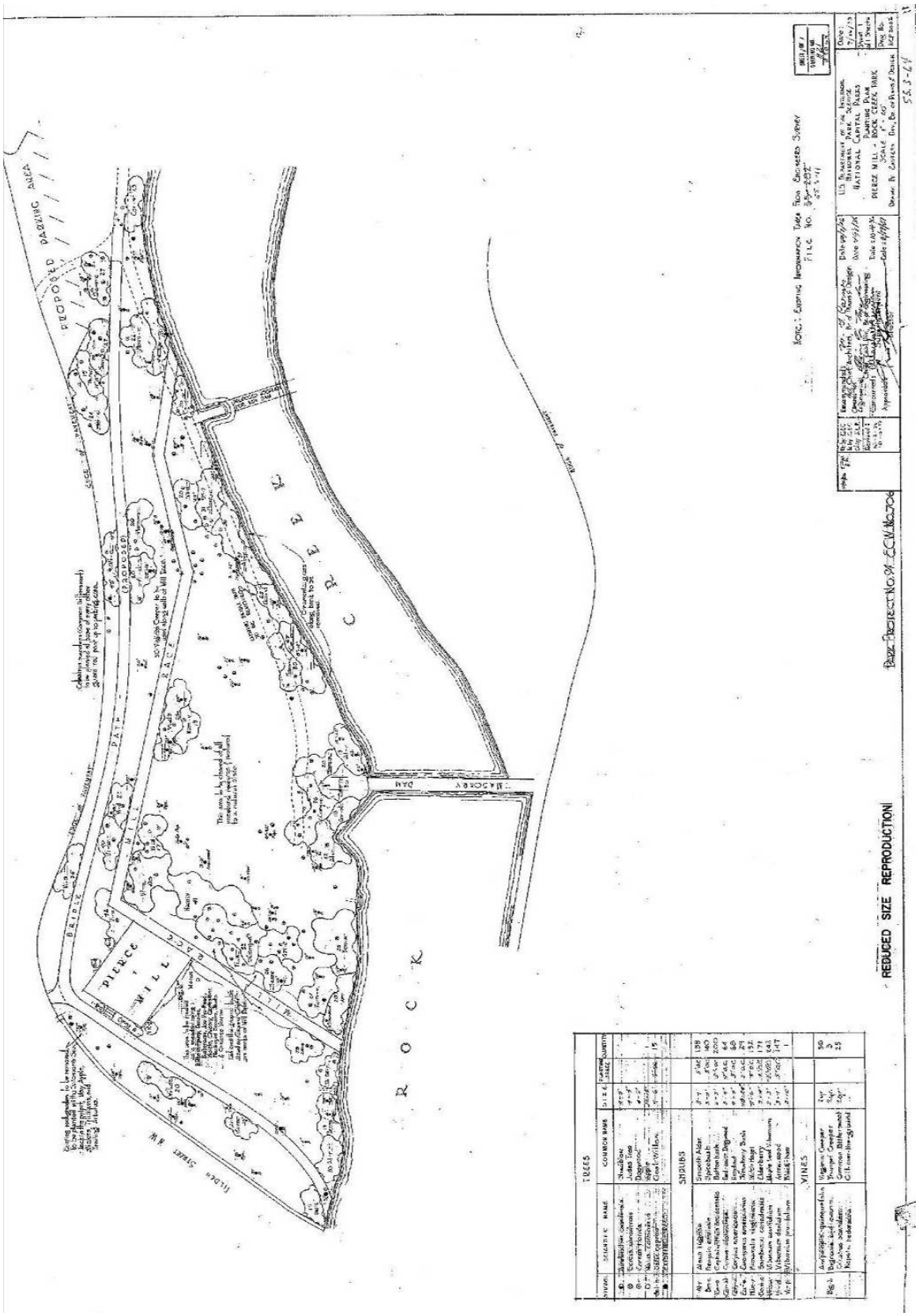


Figure 2- 20: Peirce Mill Planting Plan, 1935. (Source: National Park Service, Technical Information Center, ROCR 821-83064 [350168])

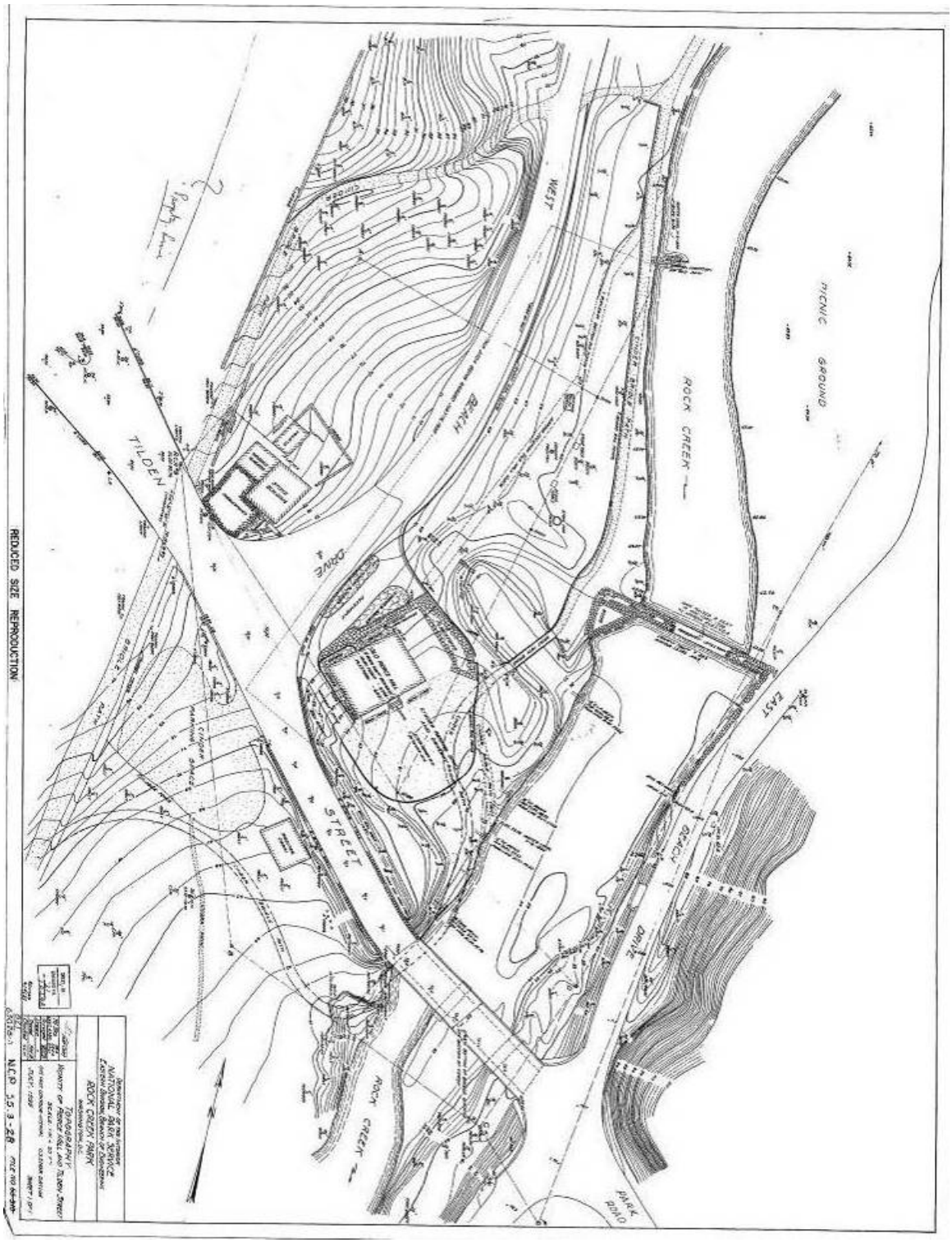


Figure 2- 21: Topography at Peirce Mill and Tilden Street, 1935 (source: National Park Service, Technical Information Center, ROCR_821_83028A[350167])

Figure 2- 22: Peirce Mill Site Plan (source: National Park Service, Technical Information Center, ROCR_821_83036[350163])

The construction of the wall of the race required additional strengthening to counter the weakness in the area caused by the depression left from the old saw mill (see Figures 2-23 and 2-24).[63] Because of unique construction difficulties encountered in hidden portions of the raceway and in "weakened framing which was badly charred from a fire" in the mill, little money remained to finish the restoration, much less address the issue of the dam. Although the importance of the mill's restoration is underscored by the additional $10,000 allocated to complete the project, funds were insufficient to restore the dam in a historically accurate way.[64]

Figure 2- 23: Construction of millrace, 1935. (Source: Rock Creek Park Historic Photograph Collection PM1-12, 16.50-3, PW571)

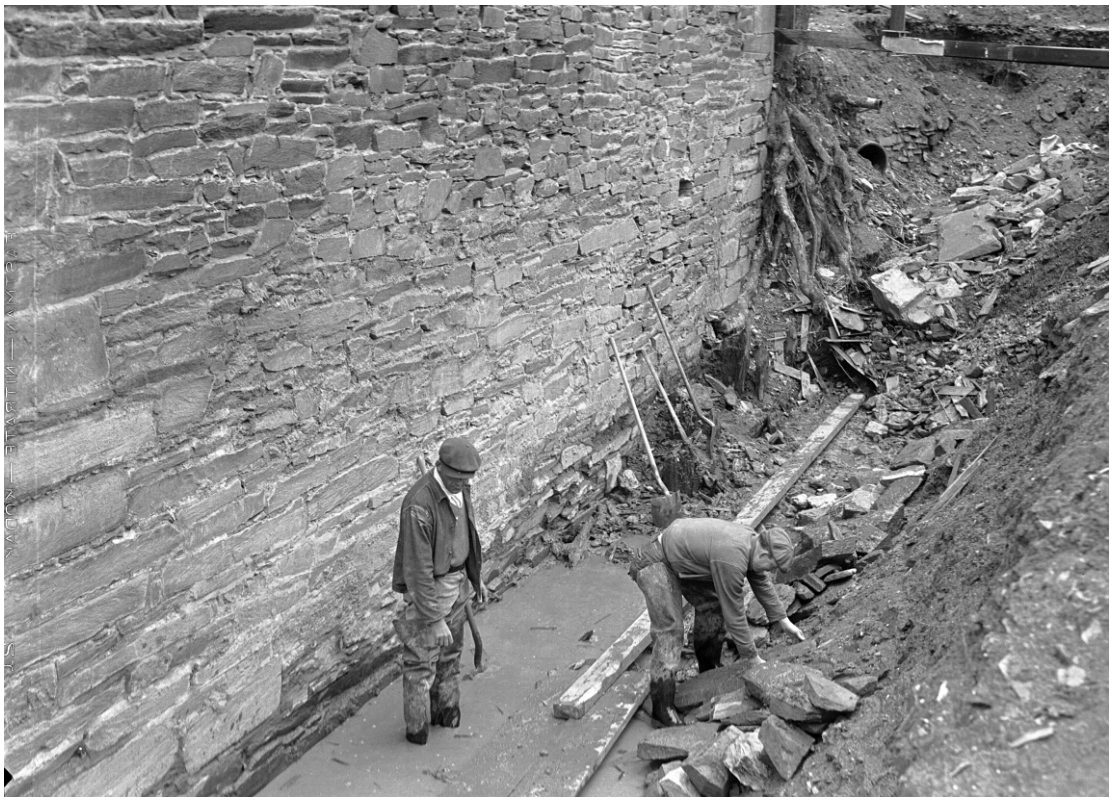


Figure 2- 24: CCC Crews restoring mill race at mill wall, 1935. (Source: Rock Creek Park Historic Photograph Collection PM1-21, 16.50-3)

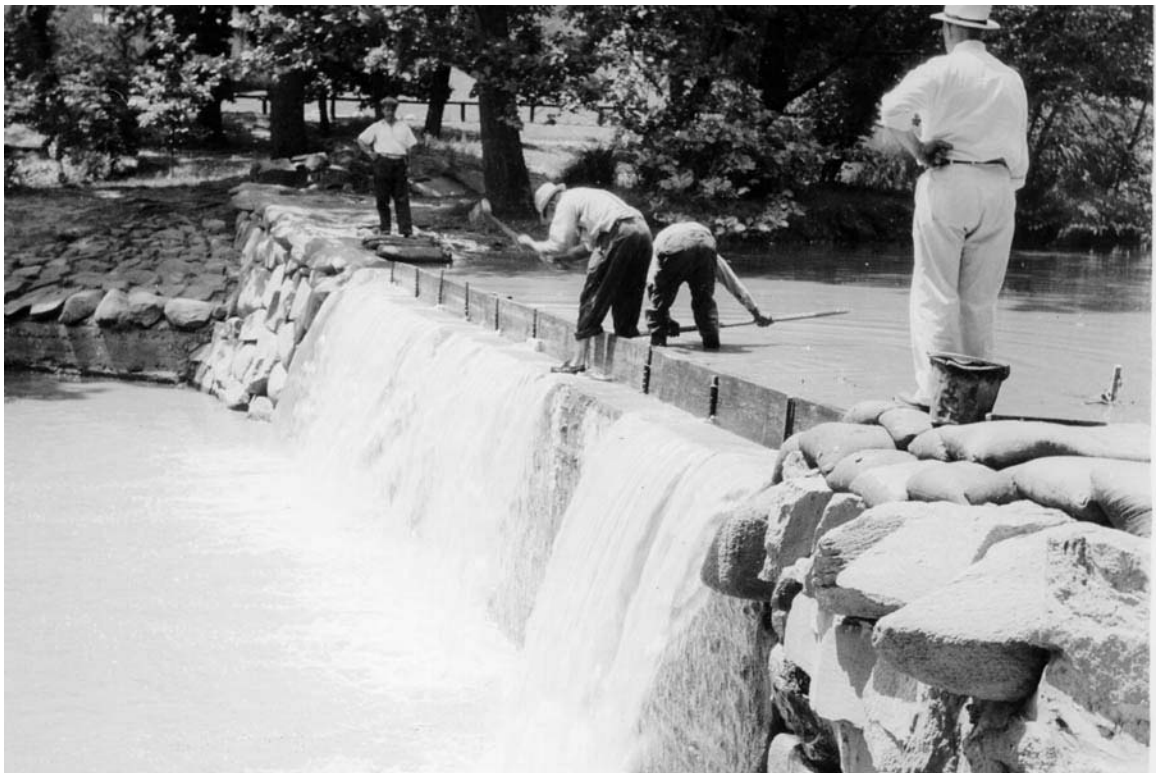


Figure 2- 25: CCC crews raising the mill dam, 1936. (Source: Rock Creek Park Historic Photograph Collection PM2-83, 16.50-3)

The restoration concept called for a milldam that effectively supplied the wheel with water as well as had historic visual appeal. Because the 1904 dam was in the "boulder style," Waterman felt that it lacked harmony with the stone work of Peirce Mill and with the tradition of milldams. A more historically accurate timber crib would be "not only extremely interesting, but in perfect harmony with the building and the surroundings."[65] Figure 2-25 provides a view of the CCC crew working at the Mill dam in 1936. The National Park Service analyzed the value of removing the 1904 dam in favor of constructing a crib dam in the same general location as the dam that had last powered the mill. The continued impounding of water to the elevation required to run the mill with the 1904 dam was unsatisfactory and resulted in "the destruction of an extensive area of the valley floor that formerly was both beautiful and useable." These inundations mostly damaged vegetation and left behind silt deposits. It was hoped that a new dam at the old location would "prevent overflow and scour silt deposits from the upstream bed."[66]

In the end, funding restrictions necessitated abandoning plans for a new dam and developing a different strategy for powering the mill. An undershot wheel that did not require a high elevation of water was installed. A CCC crew cut back the shoreline that had shifted away from the millrace. They also repaired the 1904 dam and raised it eight inches to provide a greater fall. Even with these efforts, siltation, which collected in the bottom of the restored millrace, sometimes prevented the free flow of water to the wheel.[67] In spite of these problems, the mill opened to the public in 1936. The Welfare and Recreation Association was granted the concession to sell the meal ground there. Residential quarters for the miller were created in the remodeled "store house across the street," or the former wagon barn.[68]

Other changes in the mill area included relocating a bridle path under the western span of the Peirce Mill Bridge and discontinuing the ford crossing. The former bridle path crossing at Tilden Street caused traffic congestion, see Figure 2-26. The placement of the trail along the bank of the creek necessitated the construction of a long retaining wall along the creek's edge, which also removed physical evidence of the historic ford. This work was completed as part of a 1937 effort to improve Rock Creek Park's trail system.[69] Short wooden footbridges were also installed across the restored millrace.

The north/south segment of old Peirce Mill Road, or West Beach Drive, was converted to trail use in the area just north of the mill and the wagon barn/stable. The portion of the drive passing between those two structures was expanded into a small parking lot. Creation of the parking lot caused a dramatic change in grade in this area, and deepened the bowl-like effect of the topography surrounding the mill.

Figure 2- 26: Horses crossing Tilden Street at Peirce Mill, ca.1935 (source: Library of Congress)

Figure 2- 27: Peirce Mill after restoration, note sign, millrace, fence and plants, 1936. (Source: Rock Creek Park Historic Photograph Collection PM3-36)

Not only did the restored mill attract park visitors to this part of Rock Creek, but the National Park Service interpretative programs did as well. The landscape around the mill provided opportunities for interpretation (see Figure 2-27). While the history program was centered inside the mill, outside the emphasis was on nature in the park. The Service prided itself on its educational and interpretative programs on the value of parks. Thus, Donald McHenry, the first Park Service naturalist assigned to National Capital Parks, began a series of traditional NPS Friday night campfire programs at the mill in June 1936.[70]

1951-2009

Throughout the rest of the 1930s, 1940s and into the 1950s, the mill functioned on a limited basis, grinding small quantities of meal. Frequently water levels in the Rock Creek were insufficient to operate the wheel. The Park Service officially suspended mill operations in 1958 because of continued machinery breakdowns, the inability to find trained millwrights to maintain and repair the works, as well as fluctuations in the water levels. The building, however, did remain open to the public on a limited basis, serving as a museum and interpretative center.[71]

By 1967 interest in restoring the mill's operation was renewed and another preservation effort initiated (see Figure 2-28). Under the supervision of the National Park Service between 1968 and 1970, several significant alterations were made to the exterior of the mill. An assessment of water levels in the creek and conditions at the mill indicated that the 1904 dam could no longer function as a mill dam, but rather, in keeping with its original purpose, served more as a spillway or waterfall (see Figure 2-29). In an attempt to remedy these problems the system was altered. The undershot wheel was replaced with a more powerful version with problematic results. The design did not function properly, so the water shot over the wheel rather than onto the wheel. The raceway, which had suffered long-term damage from periodic flooding between 1937 and 1968, was filled in and covered (see Figure 2-30). The municipal water supply provided a new source of waterpower, pumped through a new short race that was built directly above the wheel. The restoration was completed in 1970.[72] In 1969, just before the restoration was completed, the mill, wagon barn and springhouse were placed on the National Register for Historic Places.

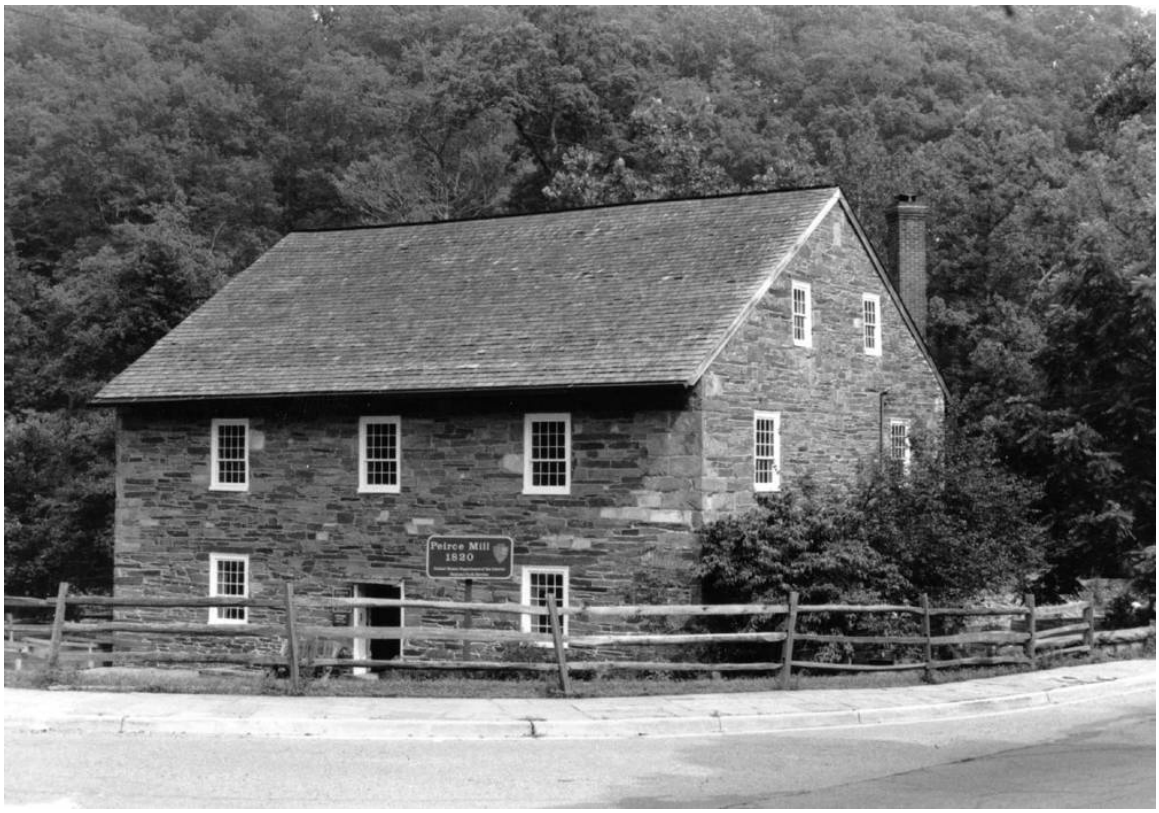


Figure 2- 28: Peirce Mill west and south elevations, showing post and rail fence, vegetation and sign, after 1966. (Source: Rock Creek Park Historic Photograph Collection PM3-119)

Figure 2- 29: Peirce Mill Dam, facing northeast, note the picnic activity and topographic terraces on east bank of creek, 1968. (Source: Rock Creek Park Historic Photograph Collection PM2-101, 4-12-48)

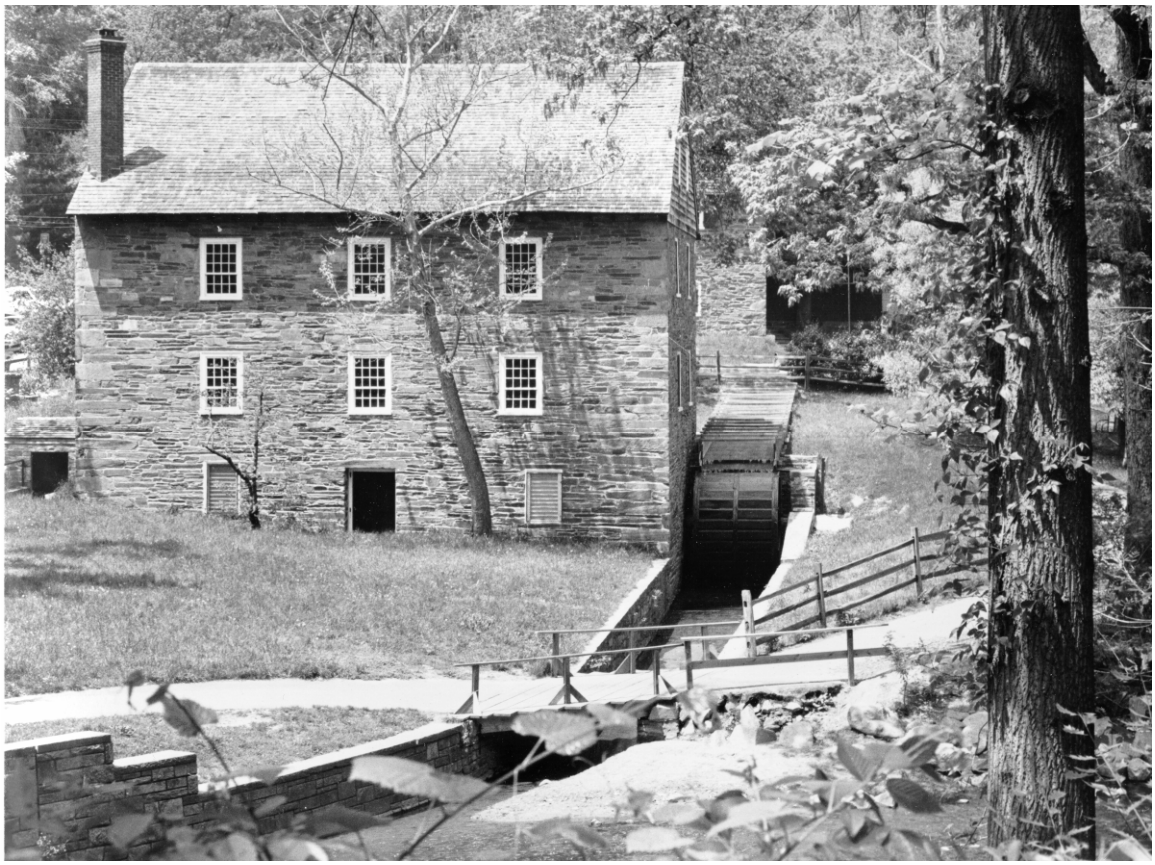


Figure 2- 30: Peirce Mill east façade, 1979, showing overshot wheel and infilled mill race. (Source: Rock Creek Park Historic Photograph Collection PM2-72, 7A, William P. Clark photograph)

In 1971, the old Peirce/Shoemaker wagon barn was given new structural supports, fitted with a new shake roof, and repainted as exhibition space for twenty-five area artists. The facility became known as the “Art Barn” and was operated in partnership with a local artist’s organization (see Figure 2-31). At the time, Russell Dickenson, National Capital Parks superintendent, stated that the conversion of the carriage house exemplified the "parks-are-for-the-people concept," and that parks should "serve the community with innovative and meaningful ideas." These management concepts originated around 1968 when National Capital Parks administration determined that Washington's parks were under-utilized. They created the Summer in the Parks Program in response.[73] Today, the National Park Service uses the barn for a visitor contact station.

Through the succeeding decades gradual, incremental change occurred around Peirce Mill. Post and rail fencing was installed; beds of tulips were planted; and the bridle trail along the creek bank was paved for use as a multi-use trail. To control erosion and stabilize the creek banks, an additional retaining wall was constructed along the creek and special riparian plantings were established.[74] A new high-water footbridge was installed in 1982 just south of Peirce Mill Grove 1 area to replace one built in 1976, but damaged extensively by high water and debris in September 1979.[75] While similar small-scale changes continue to be implemented, the effect of their overall impact has yet to be examined.

Figure 2- 31: Peirce Barn, facing northwest, after 1971. (Source: Rock Creek Park Historic Photograph Collection PM1-52)

In 1993, Rock Creek Park resource managers assessed the landscape surrounding Peirce Mill for its cultural landscape values. They described the mill and its environs as part of a nineteenth-century industrial complex. In particular, the view from the main entrance to the mill encompassed remnants of that landscape including: the former distillery, the springhouse, wagon barn/stable, old ford crossing, the waterpower from the creek, the general topography, and the visible natural resources that had been used to construct the original complex. Intrusions that compromised the landscape were the mill parking lot, sign clutter and topographic changes. Managers recalled that sometime in the 1970s consideration had been given to removing the parking lot; reestablishing a portion of the historic dirt wagon track between the mill and the wagon barn; replanting a portion of the old orchard; and excavating the mill race.[76]

Endnotes

[1] National Intelligencer, 10/20/1848.
[2] Wallace cited in Paul Inashima, *An Archaeological Investigation*, 19-20.
[3] Paul Inashima, *An Archaeological Investigation*, 268.
[4] Moran 1997, 21.
[5] John Bedell, Stuart Fiedel, and Charles LeeDecker, *Bold, Rocky, and Picturesque: Archeological Overview and Assessment and Identification and Evaluation Study of Rock Creek Park, District of Columbia*, 2008, 35; and Charles McCormick, "Milling in Rock Creek Park," 15.
[6] Charles McCormick, "Milling in Rock Creek Park," 4-8.
[7] Bedell, Fiedel, and LeeDecker, 35-38.
[8] William Bushong, *Historic Resource Study*, 18.
[9] The Cultural Landscape Inventory of Rock Creek Park fully discusses the development of these mills and their production.
[10] Morisson 1852, 21.
[11] William Bushong, *Historic Resource Study*, 26.
[12] Wolfe c. 1966; William Bushong, *Historic Resource Study*, 26.
[13] National Intelligencer 1848; Wolfe c. 1966; Peter and Southwick, *Cleveland Park*, 44.
[14] Paul Inashima, *An Archaeological Investigation*, 269; Boschke 1861.
[15] William Bushong, *Historic Resource Study*, 27; Shoemaker 1909: 44; Peter and Southwick, *Cleveland Park*, 25; and appraisement of the ...Estate of Abner Peirce 1851.
[16] Wolfe c.1966.
[17] Michler 1866; William Bushong, *Historic Resource Study*, 27; Charles McCormick, "Milling in Rock Creek Park," 35.
[18] Louise Mann-Kenney, *Rosedale*, 39-40.
[19] Louise Mann-Kenney, *Rosedale*, 39-40.
[20] W. Bryan, *A History of the Nation's Capital*, 598-599.
[21] Perry Wheelock Peirce-Klingle Mansion CLR, 6-7. The development of the Linnaean Hill property is covered in the Cultural Landscape Inventory for the Peirce/Klingle Estate at Linnaean Hill.
[22] William Bushong, *Historic Resource Study*, 37.
[23] Schedule 1, 7th U.S. Census; Boschke 1861; Richard Quin communication 1998.
[24] Paul Inashima, *An Archaeological Investigation*, 248, 269.
[25] Schedule l, 7th U.S. 1850 Census.
[26] William Bushong, *Historic Resource Study*, 28-29; Schedule of Products of Agriculture, 8th U.S. Census 1860.
[27] Schedule 3, Productions of Agriculture, 9th U.S. Census; Schedule 2, Tenth Census-1870 Agriculture.
[28] William Bushong, *Historic Resource Study*, 37.
[29] Waterman to Vint 1936; Wolfe c.1966.
[30] Charles McCormick, "Milling in Rock Creek Park," 36-39; William Bushong, *Historic Resource Study*, 37-38.
[31] Waterman to Kirkpatrick, May 6, 1935.
[32] Shoemaker 1909: 41, Waterman to Vint 1936.
[33] Board of Control 1912: 14.
[34] Peter and Southwick, *Cleveland Park*, 25.
[35] Mackall 1899.
[36] Rossell map 1890.
[37] McLaughlin and Winer, *Peirce Mill Bridge HSR*, 3-4.
[38] Board of Control 1912: 8, 14-15, 17.
[39] Barry Macintosh, *Rock Creek Park Administrative History*, 21-22.
[40] William Bushong, *Historic Resource Study*, 193, 112; Shoemaker 1909.
[41] Board of Control 1912: 14; McLaughlin and Winer, *Peirce Mill Bridge HSR*, 7.
[42] William Bushong, *Historic Resource Study*, 108.

[43] Butler to Chatelain 1935; Board of Control 1912: 9; William Bushong, *Historic Resource Study*, 112-113, 194; Office of Public Buildings and Grounds 1919; 3831; Barry Macintosh, *Rock Creek Park Administrative History*, 28-31.
[44] William Bushong, *Historic Resource Study*, 113, 194; Board of Control 1912: 21.
[45] Rambler 1914; William Bushong, *Historic Resource Study*, 113.
[46] Butler to Chatelain 1935.
[47] William Bushong, *Historic Resource Study*, 113; Butler to Chatelain 1935.
[48] Shoemaker 1909: 44.
[49] William Bushong, *Historic Resource Study*, 195.
[50] McLaughlin and Winer, *Peirce Mill Bridge HSR*, 4.
[51] Olmsted Brothers 1918; Plan No. 27.
[52] Frederick Law Olmsted National Historic Site.
[53] Olmsted Brothers 1918: 36.
[54] Peaslee to Ridley 1919, cited in Barry Macintosh, *Rock Creek Park Administrative History*, 30.
[55] William Bushong, *Historic Resource Study*, 114.
[56] Peaslee 1919: drawings.
[57] Annual Reports OPBG/OPBPP 1920-1926.
[58] Annual Reports OPBG/OPBPP 1921-1928; McCarthy 1986.
[59] Annual Reports OPBPP 1930-1932; Butler to Chatelain 1935.
[60] Kaynor 1985: 128.
[61] Barry Macintosh, *Rock Creek Park Administrative History*, 106; William Bushong, *Historic Resource Study*, 138.
[62] Peterson and Waterman to Fitz 1935.
[63] Peterson and Waterman to Fitz 1935.
[64] Kaynor 1985: 128; William Bushong, *Historic Resource Study*, 138.
[65] Waterman to Vint 1936.
[66] Rock Creek Park files, memorandum 1940.
[67] William Bushong, *Historic Resource Study*, 138; Gillen to Finnan, 1936.
[68] McCarthy 1986.
[69] McLaughlin and Winer, *Peirce Mill Bridge HSR*, 16.
[70] Barry Macintosh, *Rock Creek Park Administrative History*, 109.
[71] William Bushong, *Historic Resource Study*,139; McCarthy 1986.
[72] Washington Post, 05/15/1970; 05/20/1970.
[73] Post 02/05/1971.
[74] Post 03/17/1977; Annual Report 1981.
[75] Post 09/12/1979, 07/09/1982.
[76] Strach to James 1993.

Chapter 3: Existing Conditions

Chapter 3: Existing Conditions

Introduction

The historic landscape of Peirce Mill contains heritage resources related to the development and use of the site as a mill complex and for recreational uses. A site survey was conducted in November 2008 to record the existing conditions of the structures, vegetation, and cultural landscape features. This report includes an assessment of existing cultural landscape characteristics relevant to the historic landscape including environmental context, land use, spatial organization, topography, vegetation, circulation, buildings, and small-scale features. Landscape characteristics include tangible and intangible aspects of a landscape from the historic periods; these aspects individually and collectively give a landscape its historic character and aid in the understanding of its cultural importance.

Plan drawings illustrating existing conditions at the site are included at the end of this chapter and include Figure 3-25: Project Area Existing Conditions, and Figure 3-26: Historic Core Existing Conditions.

Natural Systems and Features

The Peirce Mill historic landscape is located within the watershed of Rock Creek and reflects the geology, pedology, and hydrology of the creek and its tributaries.[1] The large scale topography of the site has been formed by the hydrological forces and the erosion of Rock Creek. The topography surrounding the grist mill is characterized by a relatively flat and narrow plain extending west approximately 150 yards from the creek. The land then rises in an eastern facing slope. Artificial grading, the result of various road and race building episodes, further defines the landform immediately surrounding the mill. In addition, three creek tributaries historically flowed east into Rock Creek within the boundaries of the Peirce Mill historic landscape. One was located just north of the grist mill, currently visible as a depression in the topography. The second, also revealed through slight topographic change, ran into Rock Creek just south of the current Tilden Street Bridge. The final small tributary, Melvin Hazen Creek, remains and flows past Linnaean Hill down to Rock Creek at the southern end of the meadow at the Grove 1 area.

Figure 3- 1: Area immediately surrounding the south and east sides of the mill, 2008. The bike path is on the right side of the image. (Source: QE|A 2364)

The land immediately surrounding the mill and the picnic area at the southern end of the site is covered by turf with informal plantings of ornamental vegetation, both native and exotic (see Figure 3-1). During the nineteenth-century the area to the north and west of the mill was planted with fruit trees. Today forest growth, characterized by oak, maple and beech, has replaced the orchards on this long eastern facing slope. Riparian trees, shrubs and invasive vines grow along the creek banks. Some areas used for grazing during the nineteenth-century, such as the meadow south of the mill, remain open.

The climate of Peirce Mill is moderate. The mill is located within USDA zone 7. Summers are characterized by warm humid weather. Winters are mild with little snow fall. Precipitation occurs fairly regularly throughout the year, with no well-pronounced wet and dry seasons. Occasionally serious weather disturbances occur creating high winds, heavy rainfall, and flooding.

Spatial Organization

Peirce Mill is situated on the western bank of Rock Creek, just north of the intersection of Tilden Street and Beach Drive. Built in 1820 or 1829, the front elevation of the mill faces west. A driveway and parking lot are located between the Mill and barn (see Figure 3-2). The driveway is elevated above the mill to meet Tilden Street. The elevation of Tilden Street has been raised several times. The resulting height of the street and the driveway and parking lot that are adjacent to the street, is considerably higher than the area was during the earliest period of significance. A consequence of this is the mill appears to lay in a depression (see Figure 3-3).

A portion of the driveway and parking lot is in the approximate location of the non-extant mill yard. The mill yard included the space between the wagon barn west of the mill and the mill itself. The mid nineteenth-century road which connected Peirce Mill to Blagden Mill, currently used as a multi-use trail, extends from the northern end of this parking lot, north to Broad Branch Road. Traversing through an area of meadow shaded by canopy trees, this area is now used for walking and picnicking. South of Tilden Street the Grove 1 area includes a playing field, 1950s picnic shelter, parking lot, scattered mature canopy trees, unpaved trail along the south and southwest side and a paved multi-use trail on the eastern edge of the area by the creek.

Figure 3- 2: Parking lot between Peirce Mill and the barn, 2008. (Source: QE|A 2516)

Figure 3- 3: Raised roadbed between mill and barn facing northeast, 2008. (Source: QE|A 2488)

The landscape surrounding the mill itself reflects alterations imposed by the building and interpretative programs of many eras. The raceway, which leads from the mill wheel, located on the northern façade of the mill, east to the creek dates to the late 1960s. A slight depression in the landscape reveals the more extensive path of the 1936 race restoration which was filled in during the late 1960s.

Land Use

Peirce Mill sits on the western bank of Rock Creek, just north of the Tilden Street Bridge. The site is used for both active and passive recreation. The northern section of the Peirce Mill landscape, north of Tilden Street, serves as an interpretative site and limited picnic area within Rock Creek Park. The open meadow, south of Tilden Street is a more extensive area for picnicking called Grove 1, although it is not interpreted as part of the Peirce Mill site. It contains, like the picnic area at Peirce Mill, a parking lot and entrance drive. A bicycle path leads down from Broad Branch Road, passes under the Tilden Street Bridge and into this southern picnic area. Slightly north of the mill, across the creek on the east bank is yet another picnic area and parking lot. West of the mill outside the boundaries of the park, a private residence sits on the foundation of the nineteenth-century Shoemaker house. A nineteenth-century barn, located to the south of the wagon barn/stable, is also privately owned and has been renovated as a residence. The residential development at the park boundaries is screened by vegetation. The historic

orchards, which during the nineteenth-century were located on the long, east facing slope west of the mill, are lost to successional growth covering the hillside. It is possible that some stumps or other remnants remain, however they are not visible given the current dense vegetation. The barn, located to the west of the mill, is used as a visitor contact station and exhibit area. A comfort station is located to the north of the Peirce Barn.

Cultural Traditions

The extant structures on the Peirce Mill landscape illustrate building practices that were frequently employed in the Delaware Valley and undoubtedly diffused with Isaac Peirce when he migrated to the Potomac Valley. Generally, the use of stone construction and accented quoins are architectural features commonly seen in eighteenth and early nineteenth-century buildings in Bucks, Montgomery, and Chester counties in Pennsylvania--the region where Isaac Peirce was born and raised. However, most material culture scholars agree that choice of building material alone is not a reliable indicator of cultural origin. Furthermore, it is difficult to ascribe an ethnicity to construction techniques found on non-residential structures, particularly when they are not first period buildings. Nevertheless, there are a few identifiable traits associated with the buildings on the Peirce Mill landscape that provide some clues about the cultural traditions of their builder.

One such readily identifiable feature is the datestone found near the eaves of the gable roof in the south elevation of the mill, which is inscribed with the year of construction, along with the owner's initials. This feature is closely identified with the vernacular architecture of southeastern Pennsylvania, and may have its origins in the British Isles. Also, the presence of a corner fireplace within the mill suggests it may have served an enclosed office in which business related to mill operations was conducted. Again, there is a precedent for this form among the early mills of southeastern Pennsylvania.[2]

The springhouse also contains a datestone in one of its gable ends, as well as keystone arches above the window and door openings--features commonly seen in domestic buildings in southeastern Pennsylvania. However, the most distinctive feature of the springhouse is its banked arrangement, which was frequently used in springhouse construction by both British and Germanic groups in the Delaware and Susquehanna valleys (see Figure 3-4).[3] While the predominant function of the springhouse was to protect the property's water supply from contamination as well as cool perishable food products, its ancillary functions included butter and cheese making, butchering, and washing clothes. Cheese and butter making often took place on the upper floor, which sometimes served as living quarters for tenant farmers.[4]The springhouse at Peirce Mill has two levels, and its brick chimney serves as evidence of its ancillary functions.

Figure 3- 4: Banked springhouse, 2008 (Source: QE|A 2499)

Topography

The current large scale topography on site is a result of the erosion forces of Rock Creek. There are two major topographic features: the flood plain which extends north to south along Rock Creek and the long east facing slope west of the mill (see Figure 3-5). The parking lot to the west of the mill is raised to intersect with the Tilden Street Bridge.

Figure 3- 5: View across creek to flood plain and slope beyond, 2008. (Source: QEA 2376)

Vegetation

The current Peirce Mill landscape is characterized by a mix of both native and exotic vegetation. Areas utilized for interpretation, circulation and picnicking are relatively open, typically covered in light turf interspersed with canopy trees. There is very little vegetation adjacent to the buildings. At the mill, a medium sized flowering dogwood (Cornus florida) is located at the southwest corner of the building. Directly south of the building is a crabapple (Malus sp). The area immediately south of the mill is a sloped embankment with dense vegetation (see Figure 3-6). Although choked by invasive growth, some native species are present including sugar maple (Acer saccharum), tuliptree (Liriodendron tulipifera), flowering dogwood (Cornus florida), oak (Quercus sp.), one large sycamore (Platanus occidentalis) and a crabapple (Malus sp.).

To the east of the mill, turf spreads out to the retaining wall at the creek edge (see Figure 3-7). Along the edge of the creek north of the millrace, there is a dense grouping of shrubs covered in invasive vines (see Figure 3-8).

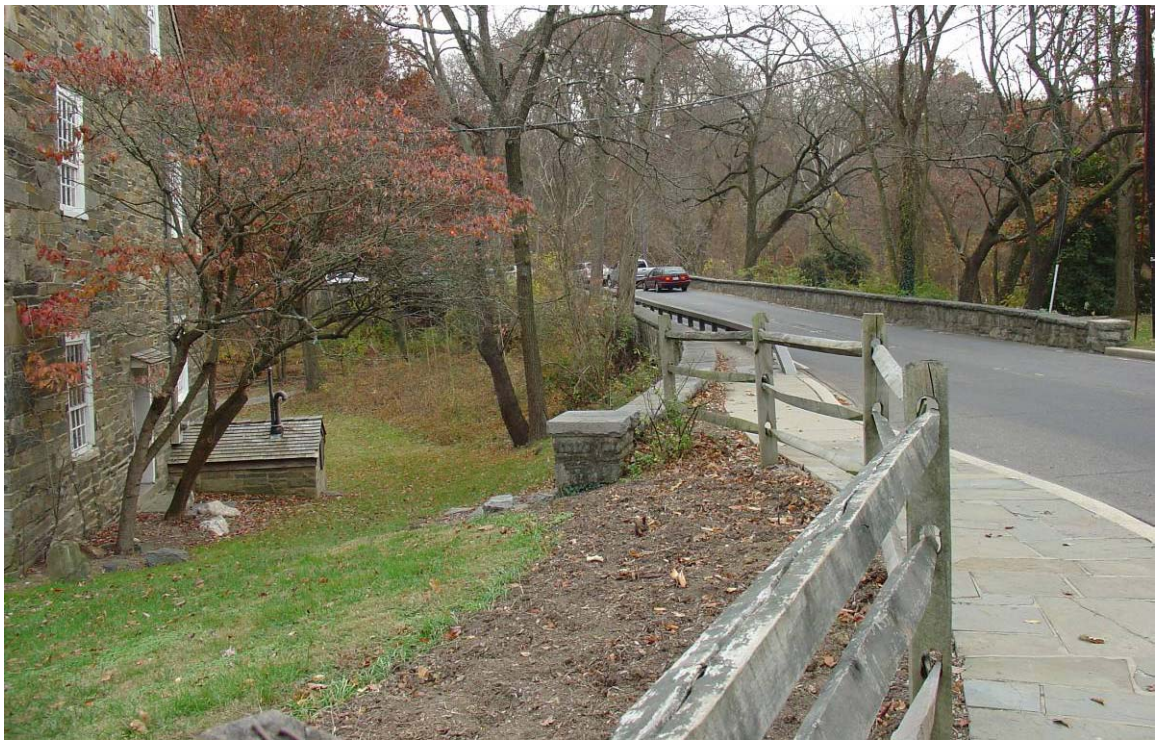


Figure 3- 6: Grouping of trees south of the mill, 2008. (Source: QE|A 2531)

Figure 3- 7: Tilden Street Bridge, multi-use path, Rock Creek, and bridge over tailrace on the east side of Peirce Mill, facing south, 2008 (source: QEA 2443)

Figure 3- 8: Vegetation between the multi-use trail and the creek, facing north, 2008 (source: QEA 2446)

Figure 3- 9: Landscape north of the mill, facing south, 2008 (source: QEA 2436)

Figure 3- 10: The area north of Peirce Mill is open with turf and mature canopy trees, facing northeast, 2008. (source: QEA 2517)

A few mature oaks are located along the eastern creek edge. The area to the north of the mill is primarily open, characterized by a groundcover of turf with single trees including American beech (Fagus grandifolia), maple (Acer sp.) and oak (Quercus sp.) planted at irregular intervals (see Figures 3-9 and 3-10). Moving northward from the historic Peirce Mill headgate, the canopy thickens slightly as the trees become more closely spaced. The groundcover remains turf interspersed with forbs. The slope located to the west is covered in successional forest growth and invasive plants.

The cleared area to the west of the mill is also turf. This turf extends west to a flower bed which lines the eastern edge of the sidewalk. This planting bed is filled with annuals during the summer season. A hedge of shrubs extends from the sidewalk to the north. A clump of lilacs (Syringa sp.) is located near the mill race (see Figure 3-11).

Northwest of the barn and parking parking lot, turf is at the base of the slope. This area is curvilinear in form bordered on the west by large trees including sycamore (Platanus occidentalis), oak (Quercus sp.) and tulip poplar (Liriodendron tulipifera). Invasive vines cover the trees rendering them almost unrecognizable (see Figure 3-12). At the northern edge of the open area is a grouping of large American holly (Ilex opaca) and one mature flowering cherry (Prunus sp.). These too suffer from the invasive growth of grapevine (Vitis vinifera), porcelainberry (Ampelopsis brevipedunculata), and Tree-of-

heaven (Ailanthus altissima). To the west of these trees are a couple of individual pines (Pinus sp.). Three relatively young tulip trees are located to the east of the comfort station and barn.

Figure 3- 11: Plants on the west side of the mill include turf, shrubs, and a flower bed (the annuals have been removed), facing east, 2008. (source: QEA 2504)

Figure 3- 12: Successional growth along west edge of Peirce Mill complex, west of the barn, 2008. (Source: QE|A 2559)

Across Tilden Street is a grouping of eastern red cedars (Juniperus virginiana). Large American holly (Ilex opaca) follow the alignment of the swale that extends from the west to the creek, south of the mill. A hedge of white pine (Pinus strobus) and magnolia (Magnolia sp.) shields views of the distillery, now a privately owned residence. Along the western border successionary vegetation has grown up in oak (Quercus sp.), tuliptree (Liriodendron tulipifera), maple (Acer sp.) and American beech (Fagus grandifolia). Riparian vegetation grows along the western bank of the creek, east of the meadow.

The meadow at Grove 1 is located south of Peirce Mill, and includes a large open area with grass and a few trees (see Figure 3-13). Two large dawn redwoods (Metasequoia glyptostroboides) are located near the parking area for this picnic ground. An extensive planting of Viburnum (Viburnum sp.) is on the south side of the Tilden Street bridge. Two symmetrically placed American hornbeams (Carpinus caroliniana) grow near the picnic pavilion. Walnuts (Juglans sp.) border the entrance drive to the parking lot south of Tilden Street.

Figure 3- 13: Grove 1 picnic area south of Tilden Street, facing northwest, 2008. (Source: QE|A 2465)

Circulation

Currently one major vehicular road, Tilden Street, bisects the site. Tilden Street runs east to west, passing to the south of Peirce Mill after crossing Rock Creek (see Figure 3-14). Beach Drive, located to the east of Rock Creek, running parallel to the creek alignment, forms the eastern boundary of the landscape. The main access to the Peirce Mill site is from Tilden Street, just west of the Tilden Street bridge. A parking lot is located between the Mill and the barn (see Figure 3-2).

An entrance drive and parking lot, associated with the Grove 1 area, is located off Shoemaker Street, to the south of Tilden Street, across from the Peirce Barn (see Figure 3-14). There are also asphalt parking lots associated with the East Grove 2 area, and the North Grove 2 area. A drive of Peirce asphalt pavers is located between Tilden Street and the double door entrance to the Peirce Barn.

Figure 3- 14: Tilden Street and bridge, looking east, Peirce Mill is on the left and the entrance to Shoemaker Street is on the right, 2008. (Source: QE|A 2502)

Figure 3- 15: North Grove 2 parking lot, the social trail is on the left, facing south, 2008. (source: QEA 2416)

Figure 3- 16: Social trail south of north Grove 2 picnic area, facing northeast, 2008. (source: QEA 2419)

A historic road trace is visible parallel to the western edge of the meadow at the Grove 1 area. Another historic road trace is located to the north of Peirce Mill. Constructed as a wagon route between Peirce Mill and Blagden Mill in the early nineteenth-century, this section of road is now used as a multi-use trail. Just north of the mill the multi-use trail curves to the east side of the mill, passing between it and the creek. It then passes under Tilden Street bridge and through the southern meadow area on a asphalt paved path, following the alignment of the creek. North of the mill a social trail runs parallel to the multi-use trail along the creek edge (see Figure 3-17). The social trail terminates at the intersection of the north Grove 2 parking lot with Broad Branch Road (see Figures 3-15 and 3-16).

Much of the existing pedestrian circulation system on the east side of the Peirce Mill parking lot dates from the late 1960s rehabilitation of the millrace and subsequent interpretive program. The walkways are covered with varying rectangular shaped bluestone pavers. A bluestone path leads from the concrete sidewalk which borders the parking lot west of the mill to the western entrance of the mill structure. Another leads from the parking lot to the comfort station and the wagon barn. This path is characterized by rectilinearly cut stones. At the edge of the parking lot, located to the east of the comfort station, the path continues parallel to the drive entrance. In contrast to the stone used in the walk leading to the comfort station, the stones in this path are set in concrete. A primary interpretive path extends from the parking lot and follows the alignment of the millrace east, almost to the multi-use trail. It terminates in a circular bluestone paved area used for the gathering of groups. The stone pavers are visible in Figures 3-2, 3-6, 3-10, 3-12, and 3-18.

Figure 3- 17: Multi-use trail between mill and creek, looking north, 2008. (Source: QE|A 2363)

Figure 3- 18: Paver sidewalk west of the mill, 2008. (Source: QE|A 2520)

Buildings and Structures

Peirce Mill, which retains most of its exterior building fabric, is located upon its original foundation on the west bank of Rock Creek near the current junction of Tilden Street and Beach Drive (see Figures 3-19 and 3-20). The vernacular industrial building was constructed in 1829 according to a datestone located within its south gable. Peirce Mill, having undergone many rehabilitation campaigns throughout its history, possesses architectural elements from each of its developmental eras. The early nineteenth-century industrial building was constructed as a custom mill, milling grain for local residents. As such, the structure is relatively small in scale compared to area merchant mills which served a larger clientele. The principle façade (west) of Peirce Mill is two-and-one-half stories. The rear façade (east) is three-and-one-half stories due to its banked construction into the gently sloping western creek edge. The gable-roofed building is three bays wide, two rooms deep, with a rectangular floor plan. Constructed of large, blue and brown, cut granite, irregularly laid, Peirce Mill has flat stone lintels and sills. The window openings have unadorned frames with nine-over-six double hung sash, except on the gable ends and the rear basement level. The attic level windows on the gable ends have a six-over-six configuration and the rear basement windows have wooden louvered screens. The gable of the north façade has been covered in wood cladding. The north façade has a wheel pit and waterwheel on the ground level which dates to the late 1960s renovation of the structure.

Figure 3- 19: Peirce Mill, east elevation and millrace, 2008. (Source: QE|A 2008 DSC02439)

Figure 3- 20: Peirce Mill, west elevation, 2008. (Source: QE|A 2529)

To the west of the mill is the Peirce Barn, the former wagon barn/stable (see Figure 3-21). The two story vernacular stone building has a rectangular plan and measures approximately 26 feet wide by 35 feet long. Like the mill, the wood shingle gable-roofed structure is constructed of large, irregularly laid stone. The fenestration of the facades varies remarkably, however, reflecting changes in the use of the building. The east façade is characterized by symmetrically paired six-over-six sash on the second level. Due to alterations, the two windows on the lower level are irregularly placed. The opening for the window toward the rear of the barn was originally larger and accommodated a door. The west elevation has two centrally placed windows in each story. The north façade has a center gable window and two asymmetrical window openings to either side of a central axis. The building has shutters attached to the northern edge of each opening. The wood shingled roof is punctuated by a square, brick chimney on the east elevation. Typical of buildings used to house wagons and carriages, the building likely served as stables as well. As such, the upper story was frequently used for the storage of hay which appears to be the case with this structure.[5]

Figure 3- 21: Barn, south and east elevations, 2008. (Source: QE|A 2524)

The current entrance of the barn is oriented towards the south and Tilden Street. The façade was embellished in the third quarter of the nineteenth-century with features such as flush horizontal board cladding on the first story and vertical board siding on the second story, roof brackets, and a tripartite ribbon window with a projecting overhang set into the apex of the gable. A large vehicular entrance is also located within this façade. Two centrally placed, deeply set transom windows are located above this wood double door entrance. A smaller, cross braced side door is located on the southeast corner of the building. This door has a square light above it, immediately below the second story. It was restored by the NPS in the 1930s. In 1971 the interior of the building was renovated to allow for use as an art gallery. Currently, the building is used as a visitor contact station and exhibit area.

A one-story comfort station is located slightly to the north of the barn (see Figure 3-22). This structure, built in ca. 1920, according to secondary historic accounts, has been moved. The first relocation occurred with the construction of the parking area west of the mill. The second relocation occurred in 1950 when it was placed on its present site. The hipped roof structure is clad with brown painted wood shingles. Exposed joists accent the roof line. The building has a horizontal emphasis with a rectilinear footprint and shallow pitched roof line. Lattice trellis screens, recently added, extend from the north and south ends, shielding the entrances to the women's and men's bathrooms. Two six-light windows are located on the eastern façade of the building. The structure has been moved from its original foundation. It does not contribute to the Rock Creek Park Historic District.

Figure 3- 22: Comfort station, looking southeast, 2008. (Source: QE|A 2553)

Figure 3- 23: Springhouse, looking northwest, 2008. (Source: QE|A 2500)

The final nineteenth-century structure which contributes to the historic significance of the Peirce Mill landscape is the springhouse (see Figure 3-23). The building is located in a triangular shaped hollow which is now part of a median strip between the dual lanes of Tilden Street, N.W. The one-and-a-half story, banked structure has a rectangular plan of approximately 15 feet by 19 feet. The moderately pitched gable roof is clad in wood shingles. A square brick exterior chimney is located on the western elevation. The lintels and sills, like those of the mill and wagon barn/stable, are constructed of stone. The primary entrance, a vertically paneled door, is on the east ground floor facade. The upper story has an entrance on the western façade. The interior of the upper floor of the springhouse, in contrast to the lower, has been finished for use as a residence.

A picnic pavilion was built during the Mission 66 era of National Park Service (see Figure 3-24). The Mission 66 buildings in Rock Creek Park have not yet been fully evaluated. The picnic pavilion does not contribute to the Rock Creek Park Historic District. The one-story stone and brick faced pavilion is characteristic of the International style of architecture.

Figure 3- 24: Grove 1 picnic pavilion and comfort station, looking north, 2008. (Source: QE|A 2476)

Cluster Arrangement

The historic commercial cluster, including the grist mill and wagon barn, are located on the west bank of Rock Creek just north of Tilden Street (previously Peirce Mill Road.) A distillery/barn associated with the miller's house was renovated as a residence early this century and is outside the boundaries of Rock Creek Park.

West of the mill and south of the orchards is a springhouse, the only remnant of a formerly loose cluster of agricultural buildings.

Views and Vistas

Many of the historic views associated with the Peirce Mill landscape have been obscured by volunteer vegetation and alterations to the landscape. Invasive vines cover much of the riparian vegetation which grows thickly along the water's edge, screening views of the creek. The east facing slope, west of the mill where the nineteenth-century orchards were located, is now grown up in beech, maple and oak. The area where the Peirce/Shoemaker residence once stood, now outside the boundaries of the park, is screened from park visitors. Changes in elevation of the Tilden Street Bridge have truncated views, which were visible from the mill during the nineteenth-century. For instance, the view of the southern meadow from Peirce Mill, has been prevented by the construction of the elevated Tilden Street Bridge. This lack of view separates a landscape that once illustrated the connection between the milling and the agricultural enterprises of the Peirce/Shoemaker family.

Figure 3- 25: View from mill south to Tilden Street, 2008. (Source: QE|A 2441)

Constructed Water Features

There are three primary constructed water features which were integral to the development of the Peirce Mill landscape. These are the late nineteenth-century crib dam, the circa 1904 boulder dam and the 1935 millrace. Remnant rock piles of the crib dam cross Rock Creek at an angle approximately one hundred yards north of Peirce Mill.

Figure 3- 26: Crib dam remnants north of mill, facing west. 2008. (Source: QE|A 2384)

The boulder dam, built on a foundation of concrete with a field stone facing on the downstream side, remains in place. It is one hundred feet long and has a spillway of forty feet located in the center. Masonry wings were added to the dam in 1905. During the 1930s restoration of Peirce Mill, the height of the dam was increased and the boulders were repointed by the Civilian Conservation Corp. Depressions in the landscape are visible at the former locations of the crib dam millrace and the later 1930s millrace closer to the mill.

Recently, a stone fish ladder was constructed on the east bank of the creek directly south of the boulder dam. The fish ladder figures prominently in views from Peirce Mill to the east toward the creek and toward the boulder dam. Above the dam and fish ladder a stone retaining wall, split-rail fence, and metal safety rail painted green all also new additions related to the fish ladder.

Figure 3- 27: Boulder dam and spillway the fish ladder is at the lower right of the image with the stone retaining wall above that and the split-rail fence and east Grove 2 parking lot beyond, facing north, 2008. (Source: QE|A 2368)

Figure 3- 28: View of boulder dam, fish ladder, split-rail fence and metal handrail from multi-use trail at Peirce Mill, facing northeast, 2008 (source: QEA 2454)

Small Scale Features

Currently most small-scale features on site date to within the last twenty years. Three types of signs are found at the site including informational signs, regulatory signs, and interpretive signs. The signage is a combination of the typical National Park Service design, characterized by the use of brown and white with the National Park Service arrowhead, and interpretive signage unique to the site. Peirce Mill and the barn are identified through informational Park Service signage.

Figure 3- 29: NPS Signage at barn, 2008. (Source: QE|A 2546)

Figure 3- 30: Interpretive kiosk north of mill, 2008. (Source: QE|A 2425)

An interpretive kiosk is located to the north of the mill (see Figure 3-25). It is constructed of wood and metal with wood shingles. The kiosk includes an artist's rendering of the site.

A split-rail fence is also used extensively in the landscape. A fence is located along the eastern side of the sidewalk at the Mill. Another split rail fence runs parallel to the path on the north side of the Mill. Metal bollards are used to restrict the entrance to the trail that follows the old road that led from Peirce Mill to Blagden Mill. Boulders are used to divide the Grove 1 area from the adjacent street. A rustic style "Washington Bench" is located by the western entrance to the mill.

The current lighting fixtures on site include various forms of light standards added to the site within the last thirty years. Along Tilden Street, light standards typical of current District of Columbia street lights, are placed at regular intervals. To the east of the comfort station are two light standards. Two metal poles painted gray, without ornament, have two floodlights each attached to their tops. The poles are sunk into a concrete base. In addition, two floodlights are attached to the north façade of the mill. One is located in the apex of the gable and the other is placed near the western most second story window.

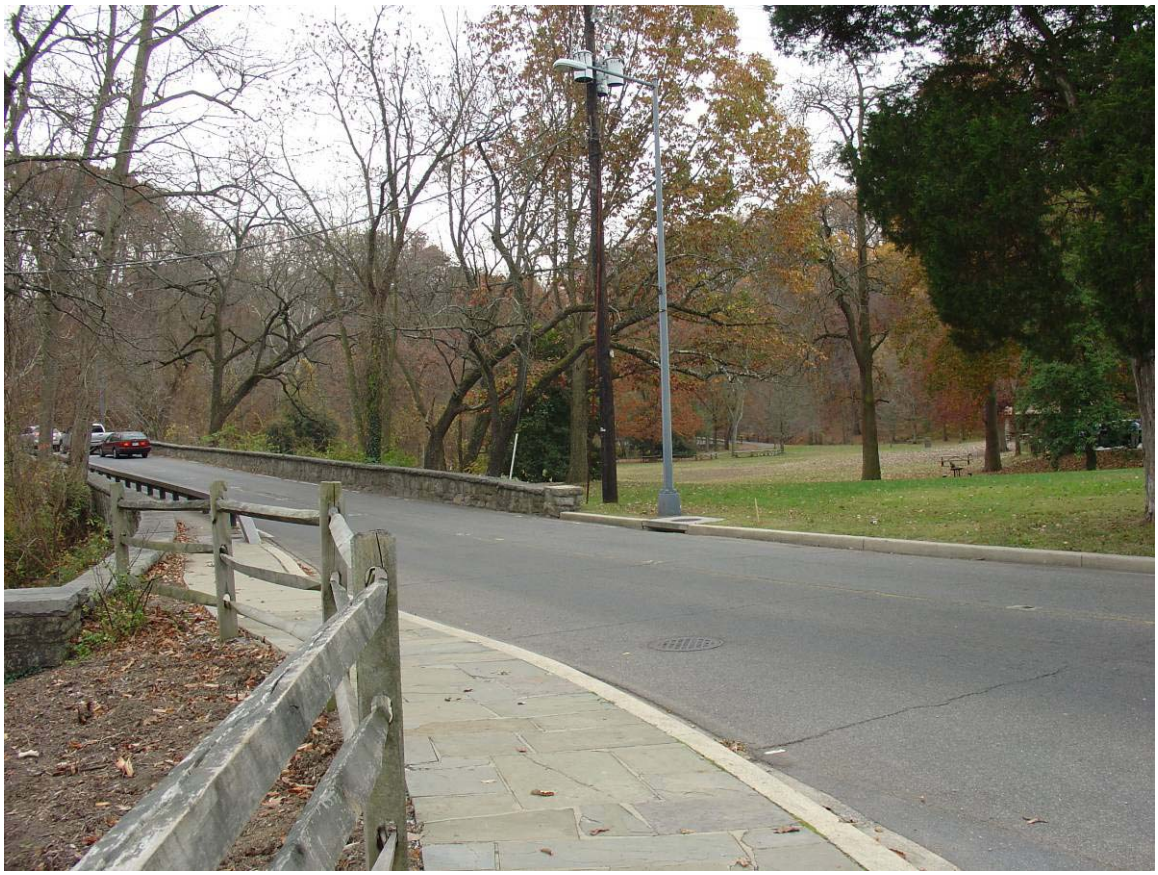


Figure 3- 31: Light standard south of Tilden Street, 2008. (Source: QE|A 2532)

Visible evidence of utilities on site includes the telephone poles and wires which cut across the northern end of the southern meadow in the vicinity of Tilden Street. Two drinking fountains are located within the Peirce Mill landscape. One is located within the southern meadow area, near the meadow's eastern edge. Originally the location of playground equipment constructed in the 1920s, this drinking fountain today appears to be isolated in the landscape, as the play equipment is no longer extant. The other drinking fountain is located to the west of the mill, near the pedestrian path that leads to the mill entrance. Clad in medium sized river stone, the drinking fountain was probably constructed with the development of the late 1960s millrace. The trash receptacles, two of which are located to the east of the comfort station, are of brown plastic with a squared profile.

An aluminum flag pole is located between the entrance drive and the mill. The foundation of the pole is composed of granite pavers, approximately two inches by two inches in size, arranged in a circle about two feet in diameter. This circular patch of stone pavers is repeated approximately fifty feet to the west, with only a metal pipe, cut off to approximately one-half foot.

Archeological Sites

An archeological overview, assessment, identification and evaluation for Rock Creek Park was completed in 2008 by the Louis Berger Group, Inc.[6] The report includes an overview of resources in the area as well as sections on Peirce Mill and the Peirce Shoemaker Farm. The information from this report was incorporated into Chapter 2: Landscape History.

In 1990, an investigation near Beach Drive was conducted to comply with Federal law prior to a road maintenance project. The investigation was undertaken by the firm of Delan-Hampton and Associates. The test pit was located to the east of Peirce Mill, in the western right-of-way of Beach Drive. No report was published detailing the outcome of this excavation.

Next pages:

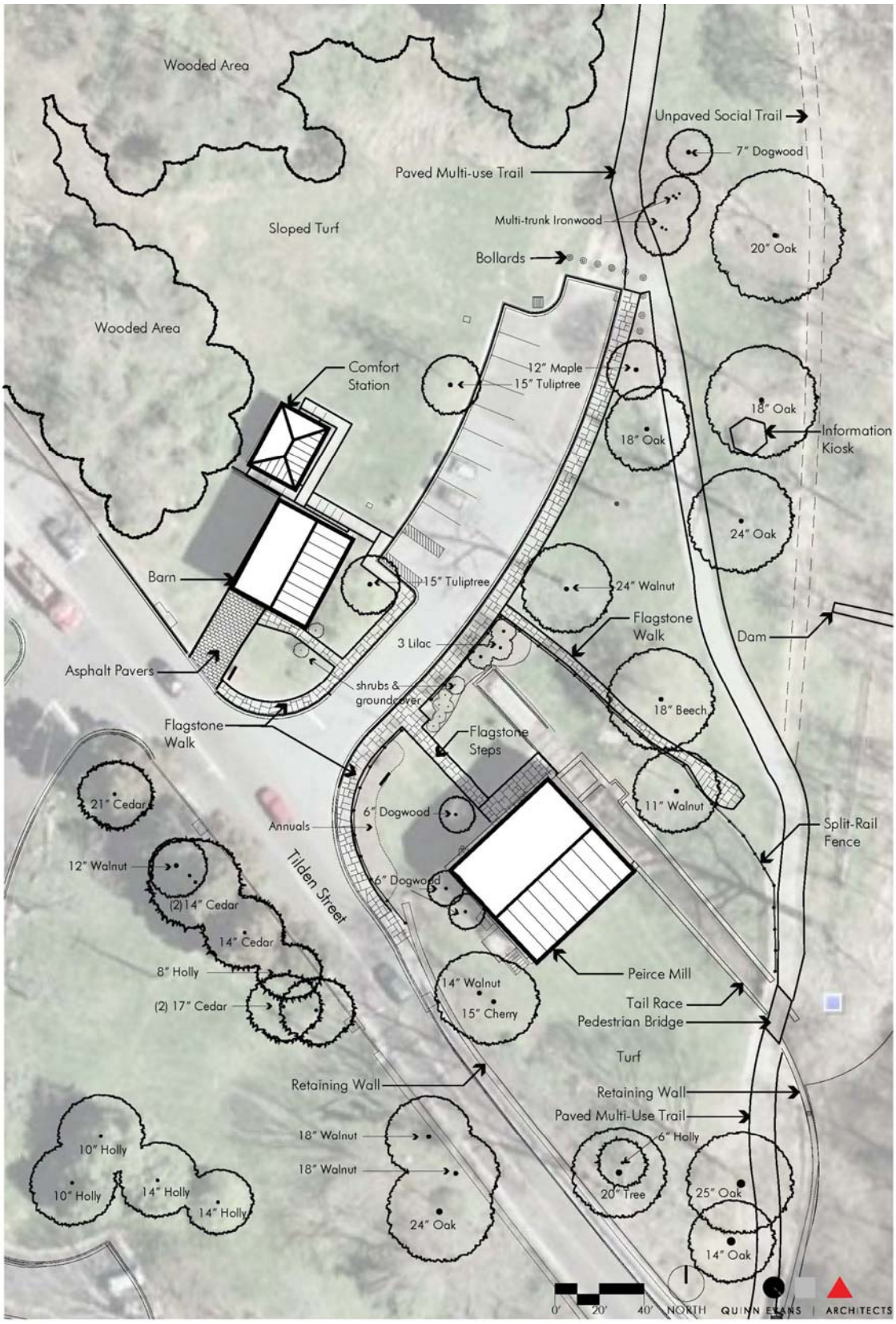
Figure 3- 32: Project Area Existing Conditions

Figure 3- 33: Historic Core Existing Conditions

Front of Figure 3-22 (11 x 17)

Project Area Existing Conditions

Back of Figure 3-22



Historic Core Existing Conditions PEIRCE MILL

Endnotes

[1] Pedology is the study of soils in their natural environment.
[2] Del Sordo 1982, 67.
[3] Glassie 1964, 22
[4] Long 1972, 12-14
[5] Vlach 2003, 109
[6] Bedell, Fiedel, and Lee Decker 2008.

Chapter 4: Cultural Landscape Analysis

Chapter 4: Cultural Landscape Analysis

Introduction

The Peirce Mill historic landscape contains resources related to three historically significant periods of development. From 1800 to 1890, Peirce Mill, as a privately owned milling and agricultural enterprise, contained orchards, transportation routes, pasture land, and agricultural and industrial building clusters. After the transfer of the property for the creation of Rock Creek Park in 1890, Peirce Mill was renovated into a picturesque tea house and the site was used for picnic grounds and equestrian trails from 1891 through 1932. The site was modified extensively between 1934 and 1936 when the landscape underwent alterations as part of a New Deal project to restore the Mill and wagon barn to function as a living history museum interpreting nineteenth-century milling activities. That activity continued from 1933 through 1950. Currently the site is used for visitor recreation and historic interpretive programs.

The Peirce Mill complex retains significant landscape elements related to the nineteenth-century industrial landscape, the early twentieth century picturesque design and the mid twentieth-century living history interpretative site. This layering of historic land use has resulted in a site which retains limited integrity to any one period of significance, but contains landscape elements that represent the three periods of significance.

Analysis of Integrity

The analysis and evaluation of landscape integrity provided herein follows guidelines provided by the National Park Service and National Register standards.[1] Landscape characteristics are the tangible and intangible aspects that collectively make up the historic character of a property. The analysis of these characteristics provides a summary of qualities and features that help managers to understand the essence of the historic landscape that is essential to protect or enhance. The Peirce Mill historic landscape analysis focuses on thirteen landscape characteristics including natural systems and features, spatial organization, land use, cultural traditions, topography, vegetation, circulation, buildings and structures, cluster arrangement, views and vistas, constructed water features, small scale features, and archeological sites.

Natural Systems and Features

During the nineteenth-century, the natural systems on site—the forest growth, topography and creek alignment—were altered to conform the site to the requirements of the milling and horticultural industries. This modification continued into the twentieth-century through the various restoration campaigns. Various natural systems and features from all eras are extant on site and assist in the interpretation of landscape change at the Peirce Mill landscape, however, the overall Peirce Mill complex landscape does not retain integrity related to natural systems and features.

Spatial Organization

The spatial organization of the site has historically been tied to the physical characteristics of the land—the alignment of the creek, the topography and the vegetation. The locations of buildings, orchards, fields and roads—while determined by human need—were all positioned in response to the natural features of the landscape. Portions of these circulation systems, the built environment, views and topography remain from the nineteenth-century. Currently, however, the integrity of the historic spatial relationship between the nineteenth-century building clusters has been diminished due to grading, vegetative growth and new circulation routes and amenities.

Historical Development related to Spatial Organization

During the early nineteenth-century, the landscape of Peirce Mill was arranged in reference to the physical characteristics of the site. The grist mill itself was located on the west creek bank to utilize the power of the water flow. A millrace ran the length of the creek almost to Broad Branch Road. To the immediate west of the race was the road connecting Peirce Mill and Blagden Mill to the north. An oil painting dating from the 1840s suggests that the main circulation route—Peirce Mill Road—ran very close to the southern elevation of the Mill, crossing Rock Creek at a ford (see Figure 2-2). The primary spatial relationship was between the Mill and the creek. A secondary relationship was formed between the Mill, the small barn to the west, and Peirce Mill road, creating the Mill yard. The site was enclosed by the surrounding landscape where the forest remained thick, and native riparian vegetation lined the creek banks. Beyond this site land was beginning to be cleared for agricultural purposes. Most likely, a small orchard was located on the eastern facing slope west of the Mill. A log house was located to the south of Peirce Mill Road. Surrounded by split rail fences, this building probably served as the miller's residence. The main residence was located further up the hill, to the southwest of the milling complex, positioned to catch the breezes and out of the flood plain of the creek.

As the nineteenth-century progressed, the spatial relationships of the site became more complicated (see Figure 2-4). Additional structures were constructed and the agricultural and horticultural enterprises were expanded. The long east facing slope was planted with fruit trees. A buffer of forested ridge land separated the orchard from the main transportation route between Peirce Mill and Blagden Mill. Land was cleared west and south of the residence, creating views. Fence lines separated pasture land from the creek and forested areas—further defining the agricultural land.

By 1866 a road connected Peirce Shoemaker's land holdings with Linnaean Hill, another Peirce property, to the south on the west side of the creek (see Figure 2-7). Although spatially divided by forest, the two properties shared this circulation route. During the 1870s, Peirce Shoemaker's milling enterprise reached its height of production. The most extensive land development also occurred at this time. Utilitarian land development was illustrated in the ratio and size of open to enclosed spaces, in the extent of fence lines, and in the large size of the agricultural structure clusters. A survey map dated 1892 reveals a gradually diminishing level of pragmatic land utilization (see Figure

2-10). The millrace, originally extending almost to Broad Branch Road, was shortened. The sawmill no longer appeared on the map. Fences located south of Tilden Street along the creek were removed. The Shoemaker residence, however, expanded. The drive to the home was lengthened, while the road connecting Peirce Mill to Linnaean Hill was abandoned—again separating the two horticultural enterprises.

With the acquisition of the property by Rock Creek Park management in the 1890s, the Peirce Shoemaker land holdings were divided. The residence was separated from the Mill, barn and springhouse. The large barn located to the west of the small wagon barn/stable was razed. The incorporation of the Peirce Mill site into Rock Creek Park initiated a series of changes in the spatial arrangement of the overall landscape. Peirce Mill was converted to a tea house, signaling the end of the utilitarian, horticultural and milling use of the site (see Figure 4-1). Divided from agricultural, horticultural and residential buildings, Peirce Mill no longer retained its physical and functional relationships to these sites.

As a recreational destination within Rock Creek Park, the Peirce Mill complex developed a stronger relationship with the eastern side of the creek. Vegetation along the creek was pruned and views to the Mill from Beach Drive were established. The ford remained east of the Mill and the road to Linnaean Hill was utilized as a bridle trail. A spatial connection between the Mill and the creek was altered with the construction of a picturesque dam, south of the site of the earlier utilitarian dam. Ornamental plantings were installed. Although the connection with the surrounding orchards was diminished by a loss of ownership, the fruit trees were still a major portion of the borrowed scenery to the west. The visual experience of an open site, although not under the same utilitarian uses, was still present.

Between 1900 and 1935 the Peirce Mill site continued to be developed as a picturesque, picnicking and recreation site within the park. During the 1920s, a comfort station was constructed to the north of Peirce Barn. A picnic pavilion and play equipment were constructed immediately south of Tilden Street in 1925. A parking lot was installed between the Mill and the creek. A screened porch was constructed in the location of the previous Mill wheel.

In 1935, Peirce Mill underwent a Works Progress Administration (WPA) sponsored restoration. The relationship between the landscape and the Mill became simplified; its utilitarian aspect again emphasized, although in a sterilized manner. The relationship between the creek and the Mill was recreated with the construction of the raceway (see Figure 4-2). Views remained open to the east and north. Another major change in the spatial relationship between structures on site occurred with the construction of the parking lot to the west of the Mill and the closure of the old road between Peirce Mill and Broad Branch, then called West Beach Drive.

Figure 4- 1: In this image, a hedge is used to separate circulation systems. Foundation plantings include shrubs and trees, and the Mill walls are covered with ivy. (source: Rock Creek Park Historic Photograph Collection PM1-32, 224 written on image, 16.50-3)

Figure 4- 2: The 1936 architectural restoration of Peirce Mill included excavation of the old Mill race and reconstruction of its stone walls. (source: Rock Creek Park Historic Photograph Collection, Peirce Mill finished but empty headrace, 8/5/35, 16.50-3)

The vegetation continued to increase throughout the 1940s and 1950s, at surrounding properties and along the creek edge, diminishing views and screening the residential development occurring at the boundaries of the park. The area became more enclosed as a result.

Summary of Integrity related to Spatial Organization

From the 1960s to the present day, the level of invasive vegetation has risen dramatically on site. Successional forest growth and invasives now cover large areas of the site. A split rail fence and an annual flower bed are located along Tilden Street at the front of the Mill. Suggestions of the spatial organization of both the nineteenth-century and early twentieth century landscape remain. Peirce Mill, the wagon barn and the springhouse are located on their original foundations. The road that connected Peirce Mill and Blagden Mill is still apparent as a multi-use trail. Portions of open spaces which were once grazing land remain open as picnic areas. Views of the dam from the Mill are partially hidden by foliage. However, the sound of rushing water can be heard and serves to diminish the impact of increasing car noise pollution. Circulation systems dating to each period of development crisscross the site. Such historic remnants contribute to the historic integrity of the site however, in some locations their fragmented presence is confusing.

Land Use

During the nineteenth-century the primary land use, milling, occurred on the western bank of Rock Creek. Utilizing the power of the falling water, the placement of the Mill dictated the orientation of the circulation systems, the locations of subsequent buildings and the design of millraces in the surrounding landscape. The current organization of the land reveals portions of this nineteenth-century evolution. Yet the site's use has undergone tremendous change from its early nineteenth-century industrial beginnings. What was once an agricultural, horticultural and milling enterprise is obscured by changes in physical features and land use.

Historical Development related to Land Use

During the early nineteenth-century the most intensive land use occurred close to Rock Creek. Peirce Mill utilized the water power generated by the dam constructed up stream from the building. An 1840 oil painting shows a log house located across Peirce Mill Road to the south, slightly to the west of the Mill (see Figure 2-2). The modest design of the house and its surrounding fencing corresponded to the utilitarian nature of the site. To the west of the Mill, on the east facing slope, orchards grew. The core industrial primary use was tied closely to the creek. By mid-century, however, another use had gained prominence on the site as illustrated by a growing cluster of buildings located to the southwest of the Mill. Situated on higher ground, out of the flood plain of Rock Creek, the residence and three associated outbuildings were tied to the Mill through views and by Peirce Mill Road. Peirce Mill Road served both as a circulation route for local endeavors and as an east-west connection between distant markets and the Peirce Shoemaker's agricultural/horticultural and milling enterprises. Animal husbandry also occurred on site as evidenced by the extensive fencing and large barn constructed prior to

1861. A primary grazing field was located to the east of the creek, north of the Mill. Another fenced field was located south of the Mill.

Around 1866, a sawmill was built immediately north of Peirce Mill, again increasing the intensity of industrial land use in the vicinity of the creek. The sawmill may have utilized part of the Peirce Mill raceway, with a short spur being added for the operation of the sawmill (see Figure 2-7). The area northwest of the Mill under fruit tree cultivation expanded to cover the east facing slope. During these middle decades of the nineteenth-century, the landscape associated with Peirce Mill was at its most extensive, illustrating the profitability of the Mill during this era.

By the late nineteenth-century, the success of the milling enterprise was waning. The sawmill was removed, its raceway evidenced only through a depression in the land. The orchards remained. The grist millrace was shortened, extending northward approximately two hundred feet to a crib dam located down stream from the earlier dam. Yet while the extent of the agricultural and milling landscapes decreased, the residence of the Shoemakers was expanded—its outbuildings placed at intervals on a long entrance drive.

With the acquisition of the Peirce Shoemaker's Mill site by the administration of Rock Creek Park in 1892, the utilitarian areas became separated from the residential area of the site. The northern and southern pastures remained connected politically to the Mill site as areas for picnicking. The orchards, however, fell to the west of the park boundary. As such, the Peirce Mill landscape size decreased dramatically. Its use also underwent dramatic alteration.

By 1905, Peirce Mill was converted into a tea house for the enjoyment of Rock Creek Park visitors. The pragmatic organization of the landscape was partially hidden by the picturesque design of the picnic area associated with the tea house development.

A dam was built in the style of Boulder Bridge, to provide the sound of falling water contributing to the enjoyment of the setting for alfresco dining. The Mill as a tea house served an aesthetic and social function as a recreational destination. Walking and bridle trails were developed both north and south of the Mill. The most intensive trail development occurred in the area of the Melvin Hazen tributary, between Peirce Mill and Linnaean Hill. The open spaces, both south of the Mill and east of the Mill across the creek, were utilized as picnic areas with play structures and a picnic shelter. Such passive recreational use of these open areas has continued until the present day.

Between 1934 and 1936, Peirce Mill was rehabilitated and its landscape altered accordingly. Much of the ornamental foundation plantings were removed to provide a more accurate historic setting for the interpretative program of the newly functioning Mill. However, this interpretation conveyed only certain elements of the Mill’s history. Although the orchards were visible on the east facing bank, their presence was not explained. Although the open meadow used for a picnic area was originally a pasture land, its history was not conveyed. The porch on Peirce Mill was removed, and its use as

a tea house discontinued. Although the restoration of Peirce Mill did recreate the late nineteenth-century millrace, some of the historic topography and circulation system was destroyed. The road leading to Broad Branch Road, was closed and a parking lot was created in its place west of the Mill. By 1958 this “Colonial Revival” rendition of Peirce Mill had also faded. Eventually the mill wheel stopped turning and the millrace was filled in.

Throughout the 1950s, the extent of the open space continued to be diminished by the overgrowth of invasive vegetation. Traffic and parking increased at the Mill and picnic areas, responding to the increases in traffic along Beach Drive. In the early 1970s the living history interpretive approach was again revived. A much abbreviated millrace, one that utilized city water, was installed and the mill wheel turned again for a short while. Peirce Mill continued to function as a destination site in the overall landscape of Rock Creek Park. Also during this period, the wagon barn/stable was converted to an art exhibition space and renamed the "Art Barn."

Summary of Integrity related to Land Use

Although the nineteenth-century land use is suggested by the location of the Mill along the creek bank, the remnant circulation systems and the remaining open space, the landscape does not retain integrity related to this period for land use. The Peirce Mill complex retains integrity of land use for the periods from 1891-1932 and 1933-1950. When viewed as an evolving recreation and interpretive site within Rock Creek Park, the integrity of historic Peirce Mill land use becomes more apparent. The continuity of the use as a social and recreational site has continued from the early twentieth century, until present day.

Cultural Traditions

Despite the property's ability to communicate building traditions diffused from the southeastern Pennsylvania culture hearth, subsequent alterations to the landscape during the twentieth-century have eroded the integrity of the early nineteenth-century landscape. Therefore the integrity of cultural traditions, which may have been conveyed additionally through site planning, has been compromised.

Topography

The topography of the Peirce Mill landscape has shaped the use of the land as much as the topography has been altered by the land’s use. Throughout the history of Peirce Mill, the topography of the site has been altered to allow for the placement of raceways, roads and buildings. Although most large scale topographic features remain from the nineteenth-century, many small grading adjustments have occurred in response to changing site needs. These topographic changes result in a loss of integrity to the nineteenth-century landscape.

The current large scale topography on site is a result of the erosion forces of Rock Creek. The two major topographic features—the flood plain which extends north to south

along Rock Creek and the long east facing slope west of the Mill—remain virtually unaltered from the nineteenth-century. The alignment of the creek, however, has changed over time--as is natural for a creek.

Early in the nineteenth-century the three-story, banked, stone grist mill was constructed in the gently sloping flood plain on the west side of Rock Creek. The millrace ran parallel to the west creek bank, north almost to Broad Branch Road. Crossing through the cleared landscape north of Peirce Mill, between the creek and the road that led to Blagden Mill, the long raceway did not drastically alter the alignment of the creek. Later in the nineteenth-century this race was filled in and a new, shorter race was constructed (most likely at the time of the conversion to a turbine wheel). The crib dam at the headrace was constructed approximately one hundred yards north of the Mill. This late nineteenth-century race altered the alignment of the creek and channeled the water. Briefly during the late nineteenth-century, a sawmill was located to the immediate north of the grist mill. Oriented east to west, it shared the head race of the grist mill. The sawmill was removed by the 1890s. The depression formed by this race was visible into the twentieth century, however.

During the nineteenth-century, the residence of the Peirce/Shoemaker family was located to the southwest of the Mill. The residential building cluster (now outside the park boundary) was located at a higher elevation than the Mill complex below, exposed to the cooling breezes and out of the creek's flood plain. As such, the design of the estate provided for views down to the creek and north to the orchards. The orchards were located on the gentle east-facing slope, west of the Mill. The angled planting surface allowed for greater sun exposure while the tree plantings prevented soil erosion. Open, flat spaces along the creek, to the north, south and east of the Mill were used for grazing.

The early nineteenth-century circulation patterns also took advantage of the topography, following the creek as it cut north to south through the lower portion of the valley. The re-construction of the bridge at Tilden Street in 1905 raised the topography of the road, serving to separate the Peirce Mill site into two individual park areas. The area south of the bridge became identified as a picnic area and the area north of the bridge, the Peirce Mill tea house. What was once a unified, utilitarian site became a visually divided, recreational area. The creation of the Peirce Mill tea house also resulted in a regrading of the topography to enhance the grounds for picnicking and for the tea house. The millraces were filled in. The drive which led from Tilden Street to the ford at Rock Creek was reincorporated into the site as a drive to access the parking lot located to the east of the Mill. With the 1936 restoration of the Mill structure, the landscape was again regraded and the parking lot and the historic road, located to the immediate south of the Mill was removed. The late nineteenth-century millrace was reconstructed and the remnants of the sawmill race filled in. The elevation of the parking lot to the west of the Mill was raised to better intersect with the new bridge at Tilden Street. These two topographic alterations, the increased elevation of both the parking lot and the Tilden Street Bridge, served to further divide the visitor's experience of the Peirce Mill landscape. A series of images of the west elevation of the Mill help to illustrate these changes in topography (compare Figures 4-3, 4-4, 2-28, 4-5, and 4-6).

Figure 4- 3: Peirce Mill, west façade, 1897. (source: Rock Creek Park Historic Photograph Collection PM1-43, Peirce Mill, 16.50-3)

Figure 4- 4: Peirce Mill, west and east elevations, note foundation plantings, vines on the Mill, retaining wall on the right, hedge on the left and rustic bridge behind the hedge on the left, date unknown. (source: Rock Creek park Historic Photograph Collection PM2-66)

Figure 4- 5: Peirce Mill, west elevation, 2008. (source: QEA 2503)

Figure 4- 6: Peirce Mill, west elevation, 2008. (source: QEA 2529)

During the 1930s the northern and southern sections of the site were again joined through the construction of a bridle trail which passed under Tilden Street. This

underpass, however, required major regrading of the western creek bank, east of the Mill (see Figure 4-7). The result was a loss of the integrity of the nineteenth-century relationship between the Mill and the creek. In addition by the late 1960s, the circa 1936 re-construction of the millrace had been filled in. Work was begun on the construction of an abbreviated millrace which ran from the Mill, east to the creek and utilized city water. This millrace remains today, although the mill wheel was removed. The historic integrity of the nineteenth-century topography of the Peirce Mill landscape has been diminished due to alteration during the twentieth century, but integrity related to the later periods of significance is intact.

Figure 4- 7: Underpass multi-use trail and retaining wall at Peirce Mill bridge, facing north, 2008 (source: QEA 2456)

Vegetation

Peirce Mill draws its significance from three periods of development. The first is as a nineteenth-century industrial and agricultural site characterized by a utilitarian openly vegetated landscape surrounding the Mill, and by orchards and pasture land respectively. On the Peirce Mill landscape these uses, though drastically altering the appearance of the landscape, did not incorporate an identifiable overlay of conscious, aesthetic design. Therefore the integrity of the existing plant material from the first period of significance is apparent primarily through the preservation of historically open areas and native plant communities. The second period of significance occurred in the early

twentieth century with the conversion of the Mill into a tea house and the grounds into a picnic area. During this period ornamental plantings were introduced to increase the picturesque appearance of the Mill. Little historic integrity relating to vegetation remains from this period. The final period of significance includes the mid-1930s restoration of the Peirce Mill structures. During this time extensive changes were made to the landscape, including the clearing of vegetation near the Mill. Design concepts from this era remain evident, such as the lawn east and west of the Mill. As a combination of a vernacular nineteenth-century industrial site, an early twentieth century picturesque park destination, and a WPA-era living history museum, the Peirce Mill landscape retains only a small amount of historic integrity of vegetation to all significant periods. Conceptual diagrams illustrating broad changes to vegetation at the Peirce Mill complex are provided in Figures 4-8 through 4-11)

Historical Development related to Vegetation

According to an oil painting of Peirce Mill dating to the early nineteenth-century, native riparian vegetation, including maple and sycamore, grew along Rock Creek (see Figure 2-2). West of the Mill, fruit trees grew on the east facing slope. The land immediately surrounding the base of the Mill was a primary work space of compacted soil cleared of vegetation. As evidence of the expanded agricultural ventures of the Peirce/Shoemaker family, maps from the mid nineteenth-century illustrate a landscape of cleared agricultural land and expanded orchards surrounded on all sides by forest. During this period four separate orchards were located within what is now the Peirce Mill landscape. The largest orchard was located to the northwest of the Mill. Currently, remnants of this orchard remain in the form of gnarled stumps buried in vines on the east facing slope. An orchard also grew between the old wagon barn and the large barn to the west. North of the large barn, another smaller orchard grew. Finally, a small orchard was located to the east of the Peirce/ Shoemaker house near Rock Creek. A narrow strip of forest was located between the large orchard and the road to Blagden Mill—perhaps placed as a buffer between public and private space. Forest was also located to the south of the clearing around the Peirce/Shoemaker house. A large, rectilinear, fenced field was located to the north of the Mill, on the east bank of the creek. The area immediately surrounding the raceway was clear of vegetation, as was the area between the orchard west of the Mill and the orchard to the north.

After the mid nineteenth-century, the Peirce/Shoemaker milling and agricultural enterprises reached their height. According to a map prepared in 1861, an allee of trees was located along the southern edge of Peirce Mill Road, just west of the Mill (see Figure 2-4). Most likely composed of cedars, some of these trees may be extant in the landscape. Although a map drawn in 1892 does not illustrate orchards, most likely portions of the Peirce Shoemaker orchards were still present (see Figure 2-10). The area of the orchard to the north of the Mill was identified as an open area with trees thinly interspersed. The area to the south of the Mill was also open, though vegetation lined the east-west tributary stream flowing into Rock Creek. Interestingly, the line of vegetation on the southern boundary was very angular, illustrating perhaps an adherence to a property line.

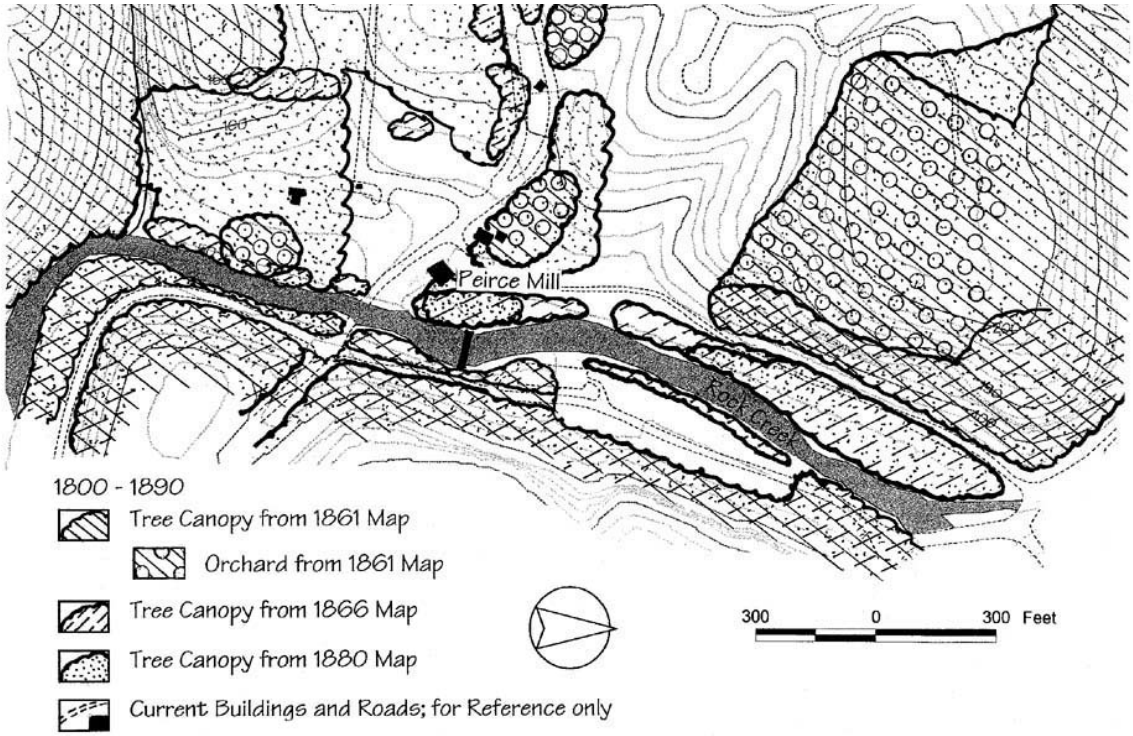


Figure 4- 8: The tree canopy from 1800 to 1890 shows a definite pattern of open fields and meadows. The 1861 map detailed orchards from the period. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3a, page 16)

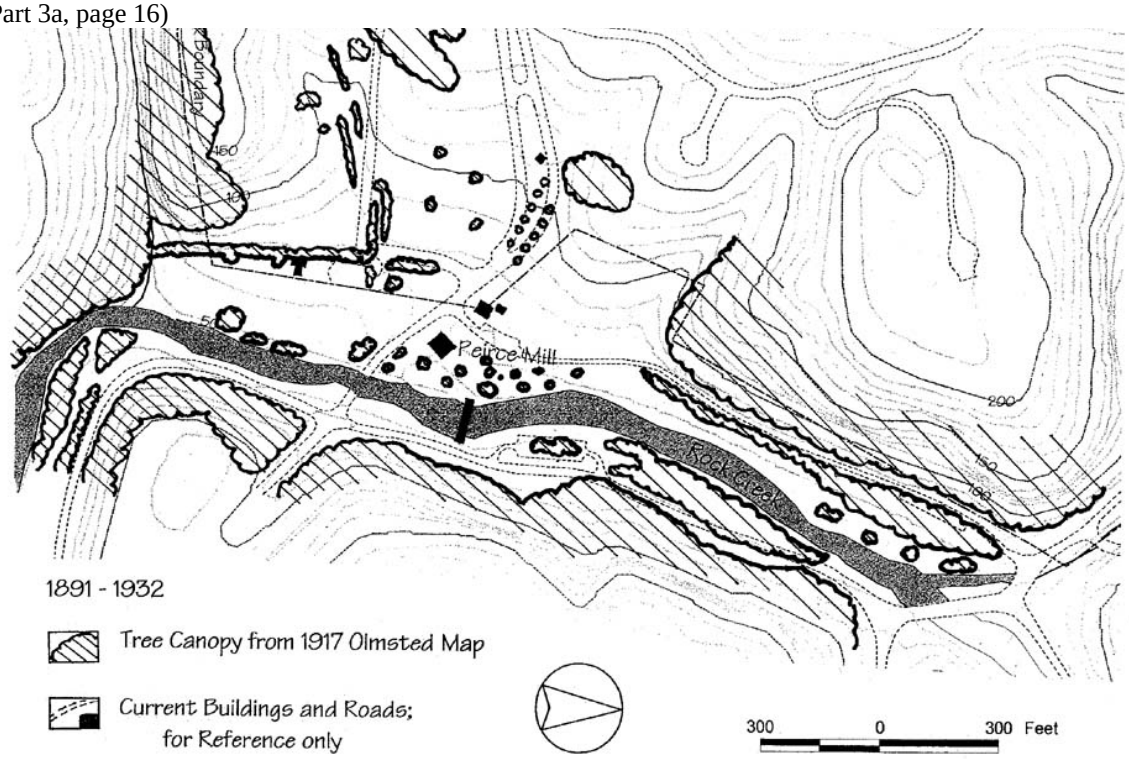


Figure 4- 9: The 1917 Olmsted Firm reconnaissance maps show hedgerows near the park boundary and an allee along Tilden Street. The meadow south of the Mill is open, while the one to the north is lightly wooded. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3a, page 17)

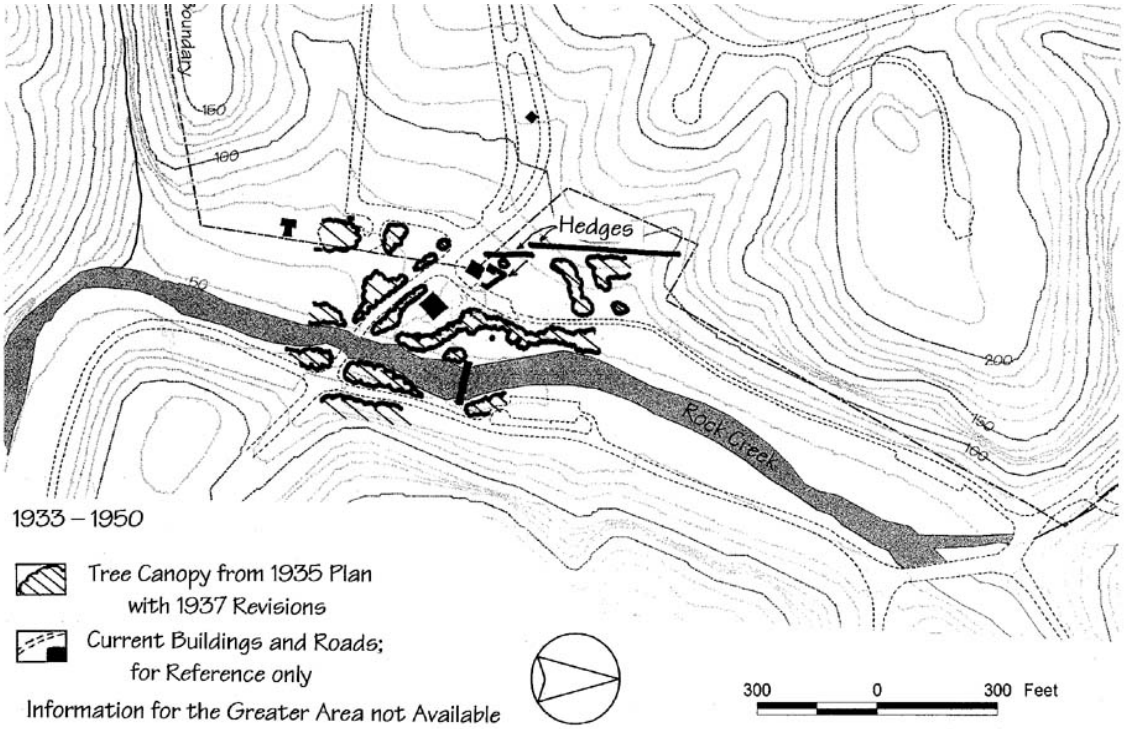


Figure 4- 10: Little information is known for the greater area, but the area adjacent to the Mill is lightly wooded. Hedges were introduced close to Peirce Mill along the bridle trail. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3a, page 17)

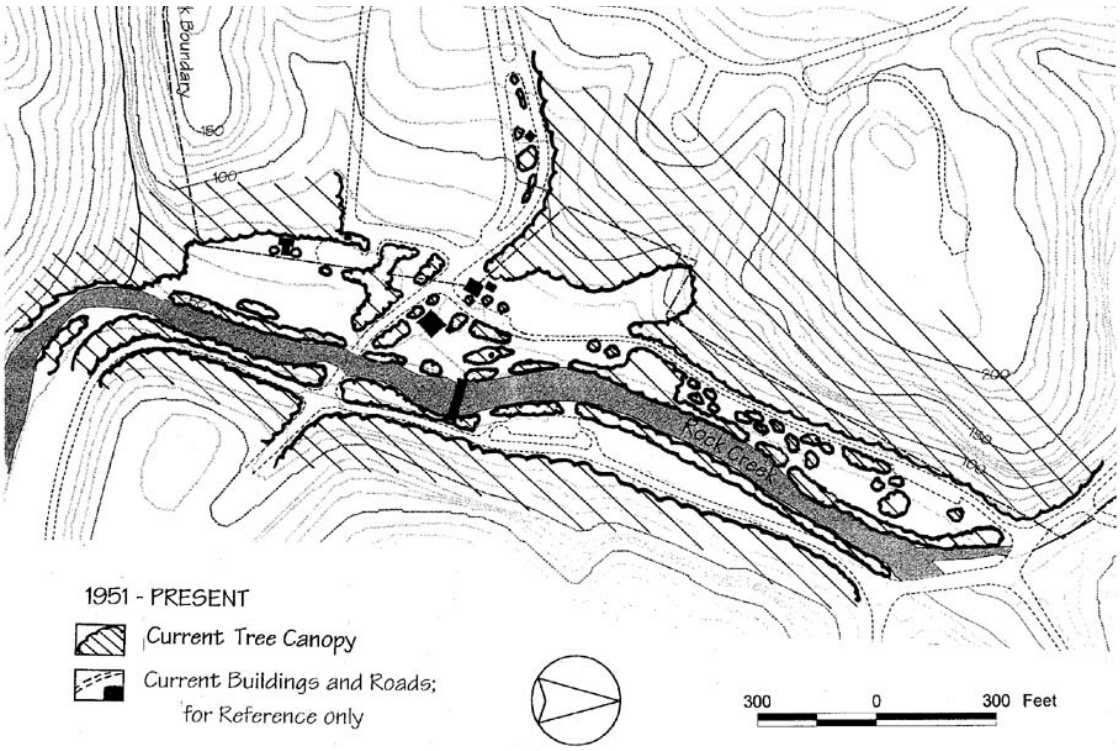


Figure 4- 11: Approximate relationship between wooded areas and open areas currently. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3a, page 18)

The landscape remained utilitarian, however. According to late nineteenth-century photographs, the road to the west of the Mill ran right up to the base of the building, with little room for vegetation. One shrub was located at the northwest corner of the building. A roughly trimmed shrub hedge separated the south Mill entrance from Peirce Mill Road. A fairly dense stand of hardwoods was located to the north and east of the Mill.
By 1900 Peirce Mill had fallen into disrepair. The slope to the west of the carriage house remained clear. The presence of fruit trees was difficult to determine from available historic documentation. A large pine was located to the south of Peirce Mill, against the northern face of the Peirce Mill Road bridge. Groups of trees near the creek bank included birch (Betula sp.) and sycamore (Platanus occidentalis). According to photographic evidence, to the west of the Mill near the miller's house, along Pierce Mill Road, was a grouping of what appears to be American holly (Ilex opaca) or eastern red cedar (Juniperus virginiana). These may still be in existence. Riparian vegetation was located to the east of the Mill along the creek.

With the conversion of the Mill to a tea house around 1905, some clearing in the immediate vicinity of the Mill occurred. In addition non-native ornamental species, shrubs, trees and herbaceous plants, were introduced to improve the picturesque nature of the site. In the area north of the Mill, used as a picnic ground, vegetation was located to frame views of the Mill, creek and dam. Much more tree cover, however, surrounded the Mill than is present today. To prevent views into developing suburban neighborhoods to the west, a buffer of tall vegetation was located along the property line west of what is now Grove 1 area. The eastern facing slope remained relatively clear of vegetation. Thinly spaced vegetation is shown growing near the northern most tributary, south of the Mill. Along Peirce Mill Road, to the west of the barn near the miller's residence, the evergreens remained.

In 1919 architect Horace Peasely proposed a Beaux Arts formal curvilinear design, heavy foundation with plantings and terraces. This design was not implemented. The Olmsted Brothers' firm also made general recommendations for the area in 1918, stating that the meadow south of Peirce Mill was very valuable as an open grassland. In fact, the words "nice meadow" were used to characterize this area. The Olmsted plan recommended that the eastern facing slope remain clear as well. It also stated that riparian vegetation, such as sycamore (Platanus occidentalis), birch (Betula sp.) and hornbeam (Carpinus caroliniana), should be encouraged to grow in an open pattern with a grassy ground cover underneath.

By 1927 a heavy foundation planting was located to the west of the Mill. Shrub plantings extended to the southern elevation. A tightly trimmed hedge, located to the west of the Mill and extending almost its full length, was used to separate the bridle trail from the pedestrian and vehicular circulation. In addition, the road extended to the edge of foundation shrubs and the hedge. As in the nineteenth-century, there was no lawn west of the Mill. Ornamental planting beds were located against the north façade of the Mill. Irises were also planted under a sign identifying the Mill. Vines, such as English ivy (Hedera helix) and Virginia creeper (Parthenocissus quinquefolia), grew on all facades, blending the architecture with its surroundings. To the north of the Mill were large trees

including walnut (Juglans sp.) and oak (Quercus sp.). A hedge was planted to the east of the wagon barn and comfort station. The eastern facing slope remained open except for a few scattered trees. A hedge defined the western boundary of the area.

With the addition of the screened porch to the Peirce Mill tea house in 1931, the area between the Mill and the creek was cleared and used for a short time as a cinder parking lot (see Figure 2-16). The previous foundation planting of small evergreens was removed. A rock garden was located south of the Mill at the base of the Tilden Street bridge abutment. The landscape to the north remained fairly open, with high branched trees over bulbs and daylilies. A formally trimmed hedge was still located to the west of the Mill, separating circulation routes (see Figure 4-11). Bulbs were planted at the base of the building at the eastern elevation. Eastern red cedars (Juniperus virginiana), were near the road intersection southwest of the Mill.

According to historic reconnaissance maps, many cherry trees (Prunus sp.) were located to the northwest of the Mill on the hillside, prior to the restoration of the Peirce Mill buildings in the 1930s. This slope however, was slowly growing up in successional forest growth creating greater levels of enclosure around the site. The area to the south of Tilden Street remained open, though here too, the vegetation at the boundaries increased. With the restoration, foundation plantings were removed from the base of all facades. With the realignment of the road and parking area to the west of the Mill, the space between the road and the western entrance to the Mill, was greatly widened and covered in turf. According to a plan proposed for the area around Peirce Mill in 1935, wildflowers and native plants were to be introduced more fully to the site to “restore Peirce Mill landscape to a natural state” (see Figure 2-20). This planting included natives such as sumac (Rhus sp.) and hazelnut (Corylus avellana) located in clumps to control and direct views to and from the Mill. A wildflower meadow was indicated for the area east of the Mill, and the rock garden to the south of the Mill was to be removed. The plan specified that Virginia creeper (Parthenocissus quinquefolia) would be encouraged to grow on the walls of the Mill race. Foundation plantings of native shrubs were suggested on both the west and south sides of the Mill. The area to the north of the Mill remained primarily open with masses of shrubs and trees. The extent to which this plan was implemented is unknown.

By the early 1960s the once sparse foundation plantings from the 1930s had grown thick on the southern and western walls of the Mill. Vines also grew on the exterior of the Mill walls. A large walnut tree was located to the northwest of the Mill. The majority of the rest of the area around the Mill was covered in turf. By 1965, were no flower beds.

By 1970, most of the vegetation was cleared to the east of the Mill. Two medium sized sycamores (Platanus occidentalis) were located on the east of the structure. On the creek edge, volunteer vegetation had increased and woody plants were encroaching on the slope west of the Mill. In 1971, tulips were planted in a bed between Peirce Mill west side sidewalk and the parking area, east of the Peirce Barn. Rough turf was located to the

east and south of the Peirce Barn. Vines continued to cover the facades of both the Mill and Peirce Barn.

Summary of Integrity related to Vegetation

The exact evolution of the vegetative growth on the Peirce Mill landscape is difficult to trace due to changing use patterns and management philosophies. Integrity of vegetation dating to the nineteenth-century may be found in the preservation of native vegetation, such birch (Betula sp.), sycamore (Platanus occidentalis) and hornbeam (Carpinus caroliniana) along the creek edge. Invasive vines and shrubs currently threaten native vegetation communities, both along the creek and on the boundaries of the site. The eastern red cedars (Juniperus virginiana) near Tilden Street most likely date to the nineteenth-century. It is possible that remnants of orchard trees could be present, however none have been identified. The ratio of open to enclosed spaces also helps to preserve the integrity of the meadow area located to the south of Peirce Mill. However, the level of enclosure near the Mill has been drastically altered from its nineteenth-century appearance. Integrity dating to the era of the tea house is virtually non-existent, as determined thus far. Finally, integrity dating to the 1930s restoration campaign, though difficult to trace, is apparent in the location of some plant material.

Circulation

The circulation system of the Peirce Mill landscape is composed of remnants of nineteenth-century, pragmatically oriented roads, early twentieth-century aesthetically based park roads and trails, and mid twentieth-century interpretative trail design. As such, the historic value of the site lies in the relationships among the developmental stages apparent in the evolution of the Peirce Mill landscape. Conceptual diagrams illustrating broad changes to circulation at the Peirce Mill complex are provided in Figures 4-12 through 4-15)

Historical Development related to Circulation

One of the earliest roads associated with the development of Peirce Mill was Peirce Mill Road constructed between 1801 and 1831. The road ran west from Fourteenth Street to cross the slope north of Linnaean Hill. The road then ran parallel to the east bank of Rock Creek before crossing the creek and heading west.

Another road which served to connect Peirce Mill to Blagden Mill, ran along the west side of Rock Creek, west of the Peirce Millrace, extending to Broad Branch Road. It then crossed Rock Creek and continued northeast in the approximate alignment of the current Beach Drive, to Peirce Mill Road's junction with Blagden Mill Road. A section of this road, from Peirce Mill to Broad Branch Road, remains evident in the current multi-use trail north of the Mill.

Alterations in circulation occurred during the late nineteenth-century in response to increasing traffic generated by suburban development and new land use patterns. For instance, in the early nineteenth-century, Rock Creek was crossed at a ford located to the east of Peirce Mill. In 1872, a wooden truss bridge was constructed at this location. The

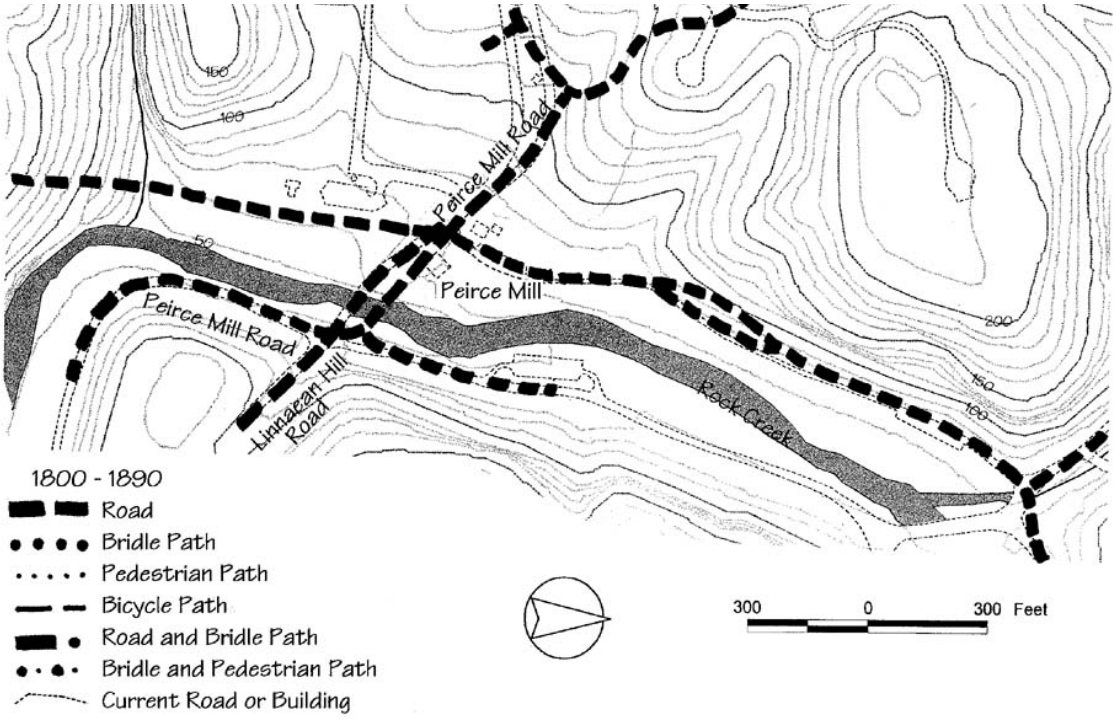


Figure 4- 12: The diagram illustrates the simple circulation patters at the site from 1800-1900.
(source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 5)

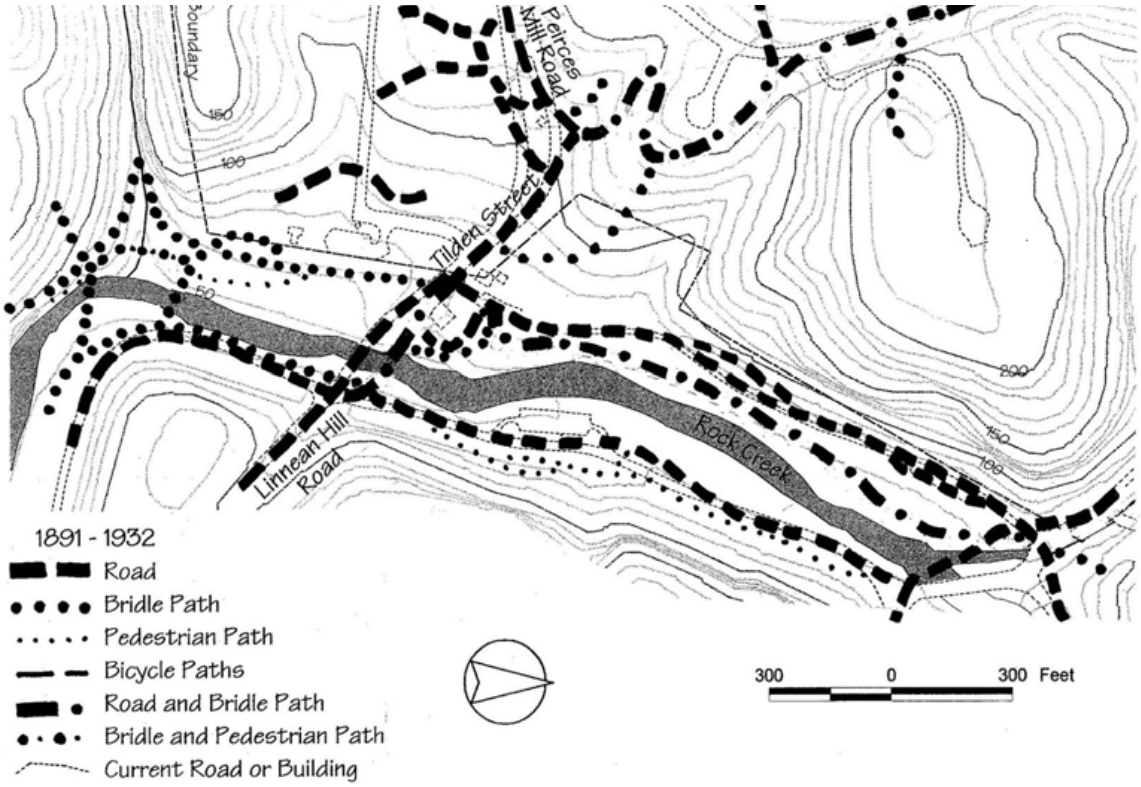


Figure 4- 13: The complexity of circulation between 1891 and 1932 is evident in this illustration.
(source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 5)

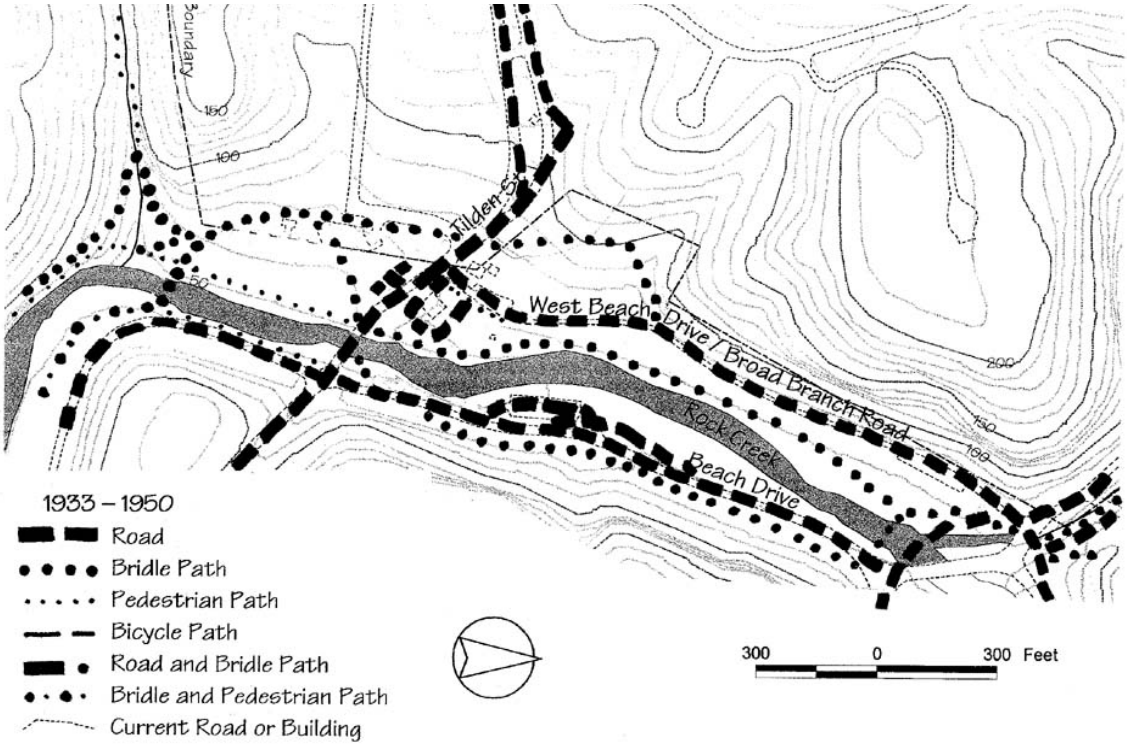


Figure 4- 14: Here are the circulation patterns found at Peirce Mill from 1933 to 1950.
(source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 6)

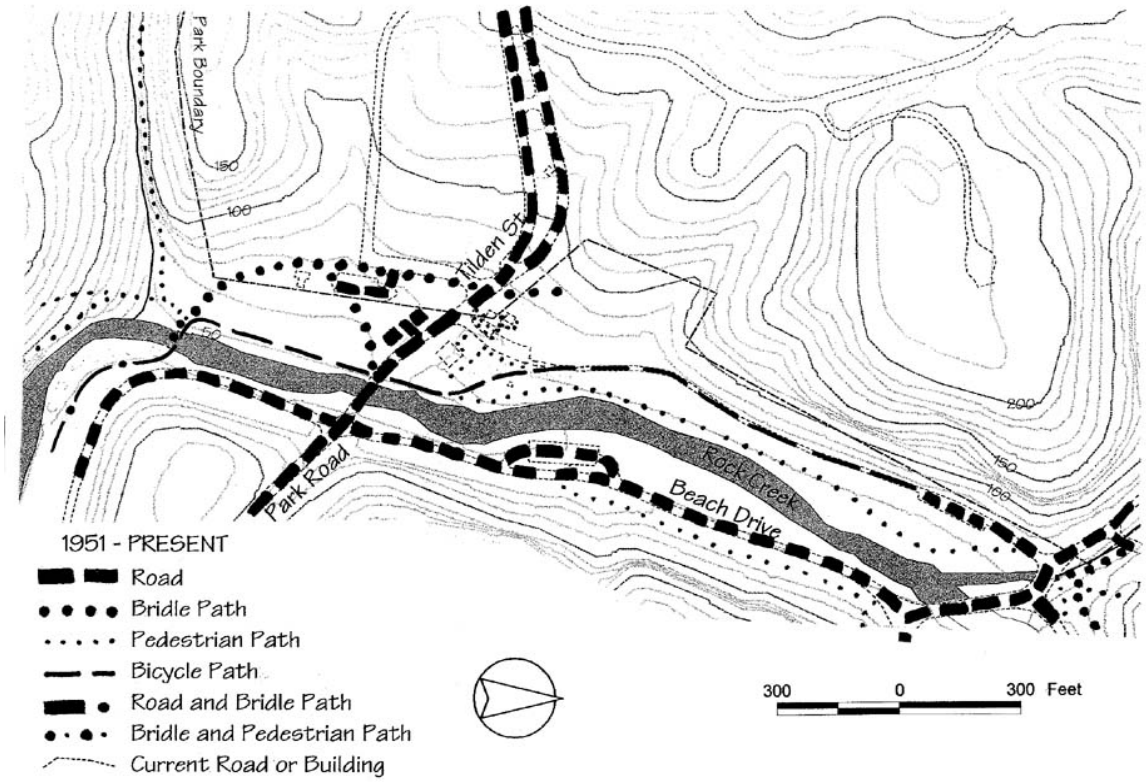


Figure 4- 15: The circulation systems shown here represent the period from 1951 to the present.
(source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 6)

ford and associated drive remained in use until the early twentieth century. The short drive connected with the ford and Peirce Mill Road passed directly south of the Mill. Immediately west of the Mill, the ford drive intersected with Peirce Mill Road and headed straight west across Peirce Shoemaker's property before splitting in two directions. The main branch of Peirce Mill Road headed southwest towards the Rockville Turnpike. A minor branch turned northwest and led to Peirce Shoemaker's orchards before veering south to meet again with the primary Peirce Mill Road. In the mid nineteenth-century a road was constructed which led south from Peirce Mill through the meadow and along the western bank of Rock Creek to Linnaean Hill. Connecting two of the horticultural and agricultural enterprises of the Peirce family, this road was built just prior to the height of the milling industry at Peirce Mill. A road also ran parallel to the east bank of the creek, north of the Mill. It connected Peirce Mill Road at the point of the Mill with a field located to the north.

By 1880 Linnaean Hill Road [present day Park Road] was constructed, creating a more direct east to west connection between Peirce Mill and urban markets, stimulating additional traffic on the cross route. Perhaps in response to this increase in traffic, in 1895 the Peirce Mill Road bridge was again replaced, this time with a bridge of steel girder construction hidden by stone facing. To allow for this type of structure, the grade on both the east and west approaches was raised slightly, beginning the gradual process of increasing separation between the roadways, the mill yard and the Mill. These road alterations imposed by increasing traffic, changed land use patterns and also determined road alignment on site. As agricultural demands of the land gradually decreased during the last quarter of the nineteenth-century, the road systems associated with the outlying fields and orchards were no longer illustrated on maps. For instance, the road that once led to a pasture east of the creek, in the approximate location of the current Grove 2 area, was obliterated by the realignment of the creek due to the construction of the crib dam after 1866. In addition the road that connected Peirce Mill to Linnaean Hill fell into disuse.

In the 1890s, with the acquisition of a portion of the Peirce/Shoemaker property by the government for use as Rock Creek Park, a new type of circulation was introduced into the landscape. No longer simply based on pragmatic concerns, the new roads, bridle and pedestrian trails illustrated more aesthetically based objectives. In 1901 the segment of Beach Drive on the east bank of Rock Creek was completed. Following the creek from Klingle Road, northward, the road was created by early park administration to provide a north to south access route through the park. Peirce Mill became a prominent recreational stop along this pleasure drive. Illustrating this functional change, Linnaean Hill Road was renamed Park Drive, and Peirce Mill Road became Tilden Street by 1910.

Recreational bridle trails were introduced in the twentieth century in response to the new land uses generated by the creation of the park. Some were built on the alignment of nineteenth-century roads. Though northwest of the boundaries of the park, the northwest section of the old Peirce Mill Road, where it branched to reach the northern orchards, was utilized as a bridle trail. The road that ran south from Peirce Mill to connect with Linnaean Hill was also used as a trail. The road that extended from Peirce

Mill Road, south of the Mill, to the ford east of the Mill was used as a bridle trail. This segment was later incorporated into a vehicular entrance for a cinder paved parking lot created during the era in which the Mill was used as a tea house. In contrast, the road that connected Peirce Mill to Blagden Mill during the nineteenth-century, remained in use as a road. The route was asphalted and renamed West Beach Drive. This road remained in use as a road until the 1930s, when the route was blocked to auto and adapted as a trail. Sections were subsequently converted to parking areas.

Bridle trails with new alignments were also created to connect with trails developed in other sections of Rock Creek Park. For instance, a trail was introduced parallel to Beach Drive on the west bank of Rock Creek, in the approximate location of the mid-nineteenth-century millrace. This trail crossed West Beach Drive, passed to the west of the carriage house, crossed Tilden Street at a traffic light, and entered the open meadow to the south (see Figure 4-14). This open meadow, used as a picnic area, was connected to the east bank of Rock Creek through a ford associated with the bridle trail that traversed the area.

Early in the twentieth century, pedestrian trails were also constructed as part of the recreational mission of the park legislation. A pedestrian trail led from the crossing of the first stream south of the Mill, to connect with a bridle trail near a swale located further to the south [currently Melvin Hazen Tributary]. After crossing a bridge, the pedestrian trail continued along the west bank of the creek. No other defined pedestrian trails were illustrated on early park maps, however paths must have existed surrounding the Mill itself.

By 1905 the Mill structure was converted to a tea house. The surrounding circulation systems reflected this use change—from a pragmatically based commercial venture to a aesthetically-designed, recreationally-oriented establishment. One clear indication of this concentration on visual enhancement was in the design of bridges in the vicinity of the Mill. North of the Mill, near the intersection of Beach Drive and Broad Branch Road, were two bridges that exemplified the very picturesque, rustic design prominent in park architecture of the period. Pebble Dash Bridge, a vehicular bridge, was located just north of a ford where Beach Drive crossed Rock Creek. This bridge incorporated native materials, including a line of pebbles set into the stuccoed abutments, accenting the curved lines of the design. A pedestrian bridge was located to the south of this bridge. Designed in the rustic style, this bridge had rough cut stone abutments incorporating stairs leading to a deck of rough sawn boards with unpeeled timber sides. This bridge connected the trails located on the western side of the creek, with the picnic area and spring located to the east. Rustically styled pedestrian bridges were also located in the immediate vicinity of the Mill, bridging the remnant nineteenth-century millrace.

In 1931, the Peirce Mill tea house was expanded and a screen porch was constructed on the north side of the Mill. A parking lot was built to the east of the Mill. The drive that originally led to the ford east of the Mill was incorporated into the parking lot access route. Another entrance drive was located to the north of the Mill, forming a circular drive around the Mill structure. During this period the distances between Peirce

Mill and the surrounding roadways was very minimal. The entrance to the Mill was very near the road, separated by a hedge, but at approximately the same elevation as the surrounding roadways. Such direct spatial relationships would change with the alterations imposed on the site with the 1930s WPA restoration.

With the restoration of the Mill between 1934 and 1936, the millrace dating to the late nineteenth-century was reconstructed. Bridges which crossed the millrace were incorporated into the pedestrian and bridle circulation associated with the development of the site as a living history museum. This program emphasized the interpretation of the nineteenth-century milling industry. The bridle trail system in the vicinity of Peirce Mill was expanded with the creation of the Tilden Street underpass during the 1930s. This allowed for a separation of circulation systems by grade, increasingly important with the growing amount of traffic on Beach and Tilden Streets. The new bridle trail which led south from the existing bridle trail, was located to the east of the Mill and passed under the Tilden Street bridge, west of the creek. The construction of this trail necessitated the building of a large stone retaining wall along the eastern bank of the creek which obliterated the remnants of the early nineteenth-century ford. The dangerous at grade intersection of the bridle and vehicular circulation routes, west of the Peirce Barn on Tilden Street, was removed. West Beach Drive was blocked by bollards and used solely as a trail. A parking lot was constructed in the space between the carriage house and Mill which necessitated a rise in grade to the west of the Mill. The piece of sloping land, which separated the Mill from the roadway, was crossed by a path incorporating stairs. The historic relationship between the Mill and the circulation routes on site was compromised by the introduction of the lawn space to the west of the Mill which separated the Mill from the road. The integrity of the spatial relationship between the Mill and circulation systems was also degraded by the construction of the retaining wall necessitated by the Tilden Street bridle trail underpass.

The configuration of trails described above remained until the late 1960s when the millrace was filled in. The expended effort to improve visitor amenities shifted to the southern section of this landscape during the late 1950s and early 1960s as part of The National Park Service Mission 66. A parking lot was constructed in the mid 1950s at the western edge of the southern meadow, west of the early twentieth-century picnic location. Connected to the surrounding circulation systems by informal trails through the meadow, the design of this picnic area and its paved parking lot, illustrated the concentration on transportation typical of mid twentieth-century design in the park.

By the late 1960s, bicyclists were becoming more prominent in Rock Creek Park. The bridle trail which incorporated the Tilden Street underpass was asphalted from the southern end of the former West Beach Drive all the way south, over the Melvin Hazen Bridge, to connect with the zoo multi-use trail. The nineteenth-century road trace that was paved to become West Beach Drive was officially designated as a multi-use trail during the late 1960s.

The national emphasis on living history, so prevalent during the 1930s, was revived in the late 1960s. Bluestone paths connecting the western Mill entrance to the

mill wheel and the eastern side of the Mill, were installed to assist with interpretation. A staging point was created through a small paved circle near the mill wheel to provide a group gathering place. Although the mill wheel is no longer functional, these paths remain today. Bridges constructed of two-by-four inch treated lumber provided both bicycle and pedestrian crossings of the tailrace, east of the Mill.

Summary of Integrity related to Circulation

The circulation system of the Peirce Mill landscape dates to all periods of significance—from the early nineteenth-century through the 1930s restoration of the site. Portions of the roads and trails from each developmental era exist, as do the alterations made to existing routes. The changes incorporated into the landscape in each successive era illustrate in many respects, the changing objectives and values of the users. For instance, the significance of the nineteenth-century road which connected Peirce Mill to Linnaean Hill clearly lies in the use of the road as a pragmatic agricultural and industrial route. Yet this alignment was adapted in the early twentieth-century as a bridle trail, illustrating the changing orientation of the landscape from a functional purpose to one based more in recreation. This early twentieth-century basis in aesthetics is reiterated in the design of a bridle trail parallel to and with clear views of Rock Creek. As such, the significance of the circulation systems associated with the Peirce Mill landscape is related not only to the nineteenth-century milling use, but also to early twentieth century Rock Creek Park development. The historic integrity relating to nineteenth-century site development, however, was severely diminished by the 1930s restoration. In addition, these designs associated with the WPA restoration, which are significant in their own right, have been severely altered by subsequent park development. As such, the current configuration of circulation systems on site retains only limited integrity to all significance periods.

Buildings and Structures

The land upon which Peirce Mill now stands was first settled in the late eighteenth-century. In 1794, according to written documentation, Isaac Peirce owned a frame house and two story timber frame mill in the Rock Creek valley. By 1810 he had constructed a new residence which was described by contemporaries as a building of oak timbers with a gable roof and vine-covered porch placed on a stone foundation. Peirce Shoemaker built his own house in the same location. The existence of several barns, outbuildings and a distillery/barn was also recorded. Due to the division of the Peirce Shoemaker property in 1890 for the creation of Rock Creek Park, the only nineteenth-century buildings contributing to the historic integrity of the landscape are the Mill, the wagon barn and the springhouse. These buildings were acquired by the government in the creation of Rock Creek Park. Many of the nineteenth-century structures associated with the milling and agricultural enterprises of Peirce Shoemaker's family, which remains private land, have been razed. Subsequent restoration and rehabilitation plans have altered the original appearance of the remaining structures. In addition, buildings have been constructed on the landscape to accommodate Rock Creek Park visitor needs. Conceptual diagrams illustrating broad changes to buildings and structures at the Peirce Mill complex are provided in Figures 4-16 through 4-19)

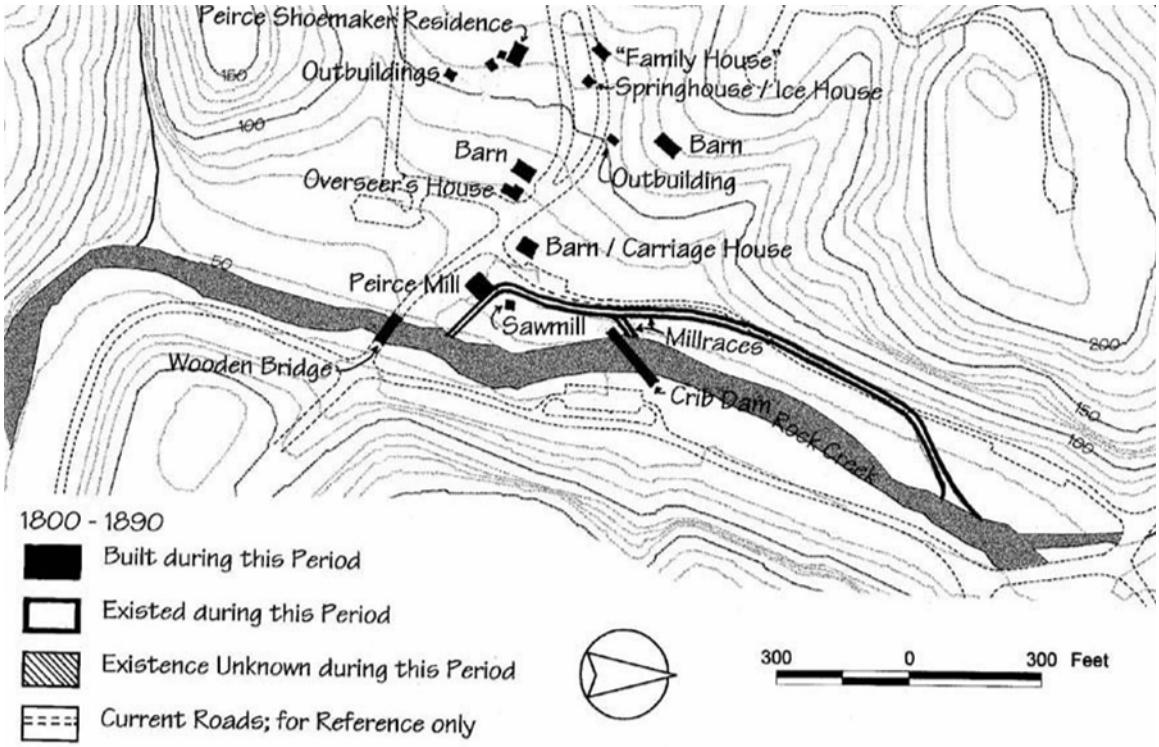


Figure 4- 16: Structures built on the site between 1800 and 1890. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 13)

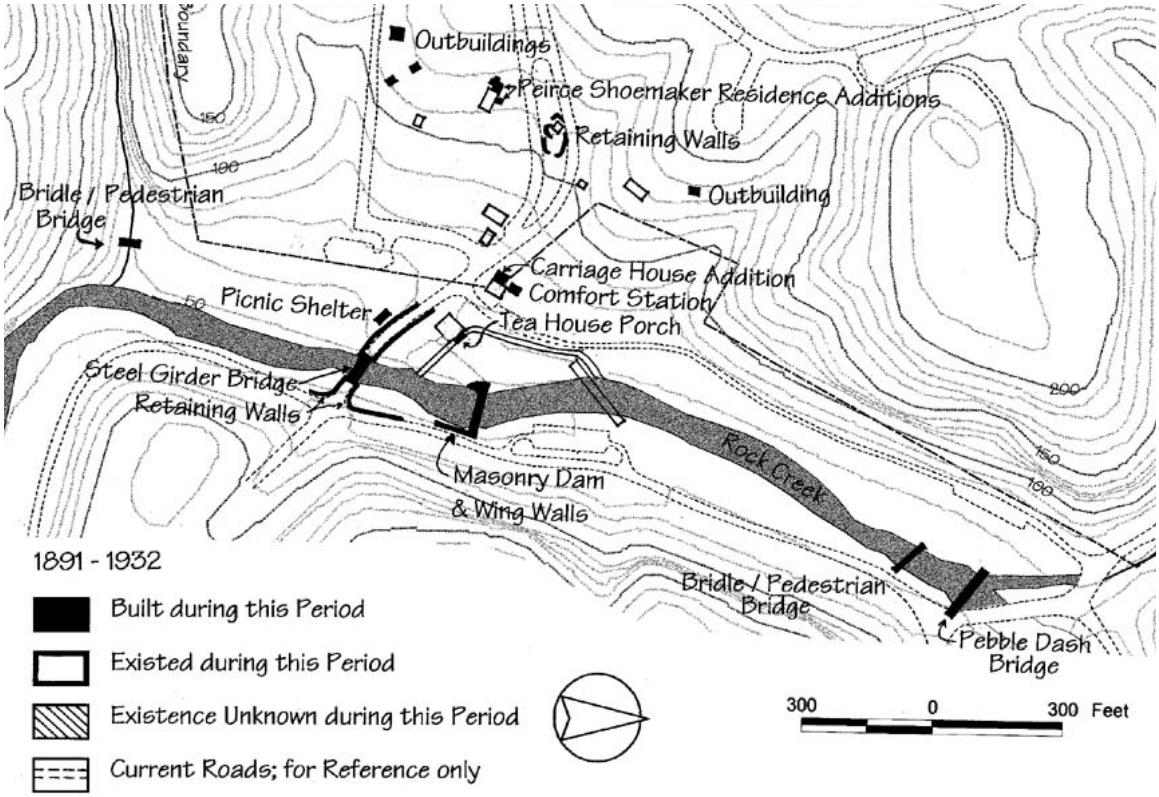


Figure 4- 17: Structures present between 1891 and 1932. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 13)

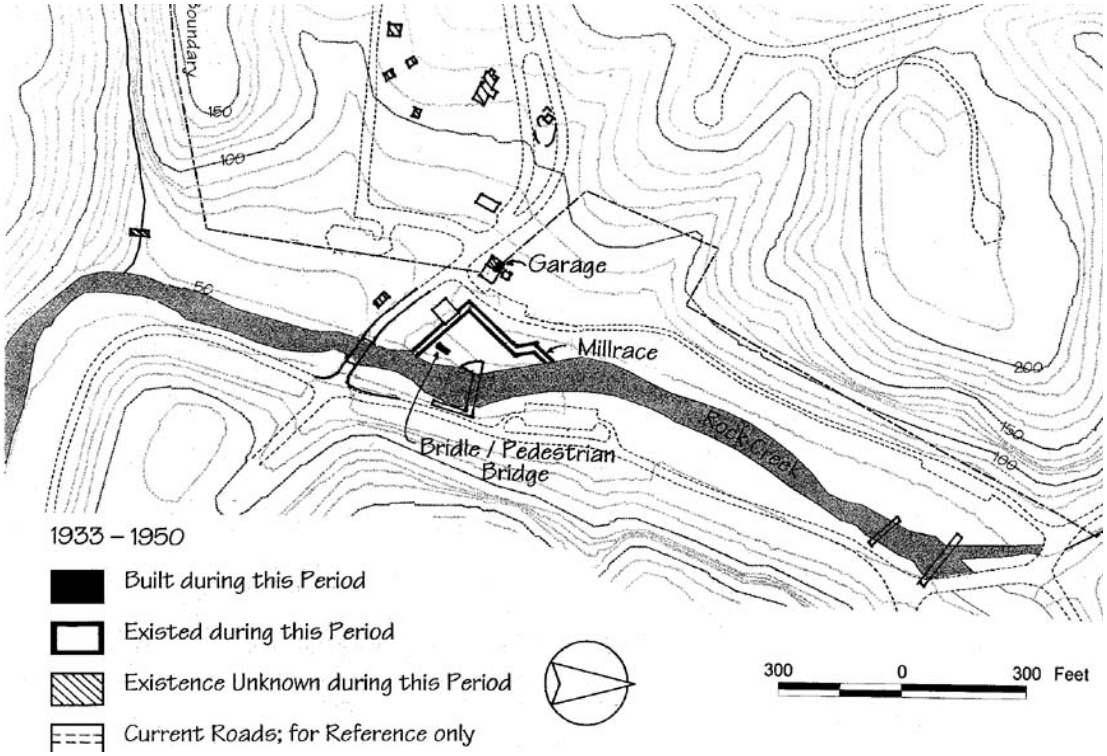


Figure 4- 18: Structures present between 1933 to 1950. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 14)

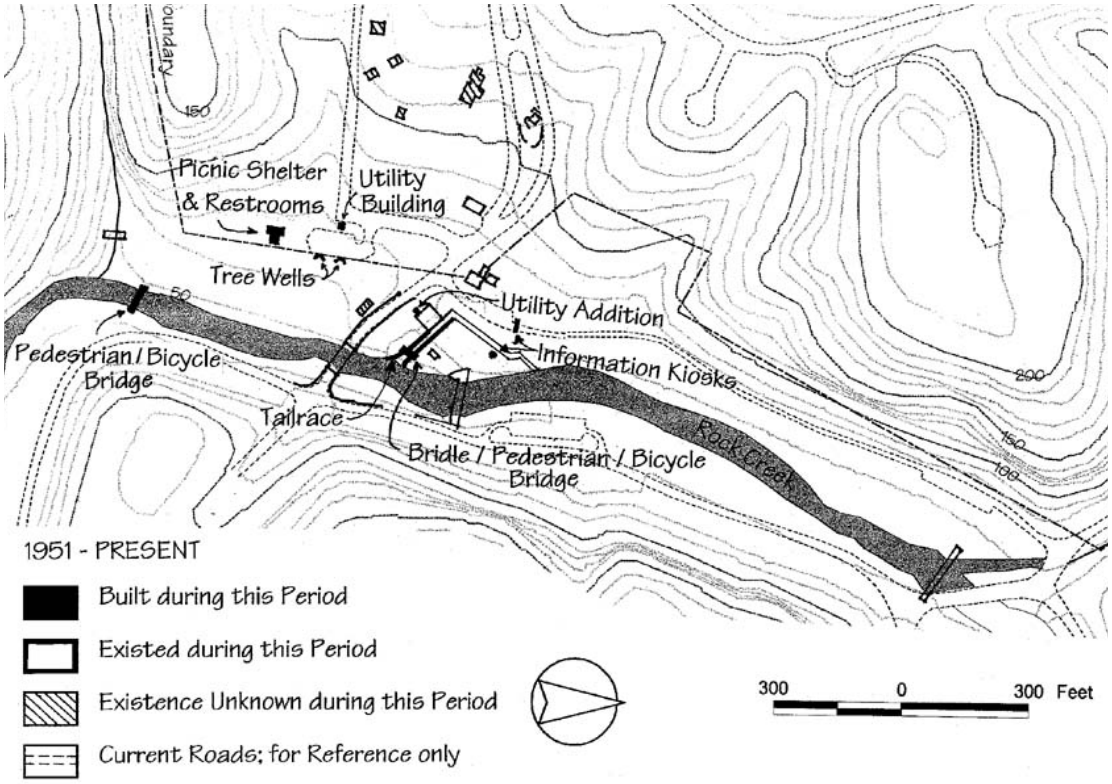


Figure 4- 19: Structures present between 1951 and today. (source: Cultural Landscapes Inventory, Peirce Mill, Part 3b, page 14)

Historical Development related to Buildings and Structures

The chronology of the evolution of the structures associated with Pierce Mill is based on an analysis of historic maps, written text and late nineteenth-century and twentieth-century images. Further study of these primary and secondary resources is needed to establish the exact sequence of building alterations.

One of the earliest known images of Peirce Mill is an oil painting, circa 1840. According to this painting, Peirce Mill was oriented toward the creek. The image also reveals the existence of a one-story, log structure located to the south and slightly west of Peirce Mill. Oriented with its central door toward the creek, it had a wood shake gable roof. This log structure is no longer extant.

By the mid nineteenth-century, Isaac Peirce owned between 1600-2000 acres of land and is believed to have had two mills in the vicinity—Peirce Mill or the grist mill, and a sawmill. According to written secondary sources, by 1847 the sawmill located at the junction of the stream leading down from Linnaean Hill [now Melvin Hazen] and Rock Creek, was in ruins. The construction date of this sawmill is not known. In 1851 Peirce Shoemaker, a relative of Isaac Peirce, inherited the land and improvements. It was under Peirce Shoemaker's management that Peirce Mill was most successful. This success was reflected clearly in the number of structures built on the landscape and in the extent of the agricultural improvements on the land.

The Peirce Barn was constructed before the Peirce Mill. A large stone building was located to the west of the Peirce Barn. The exact date of its construction and architectural appearance is not known, though the building appears on maps dating from the mid nineteenth-century. A historic image suggests that this building had a gable roof and may have been a forebay barn. Extensive fencing surrounded this structure. Located to the west of the current park boundaries, this building was razed in the early twentieth century. To the south of the Mill, across Peirce Mill Road was the Mill overseer's house. Another stone barn was located to the northwest of the house. The house appears in late nineteenth-century photographs as a single story, clapboard covered, gable-roofed structure. Historic maps indicate that the building was located in approximately the same place as the much earlier log building. Therefore, this house may have been simply an altered version of the original structure. The barn, identified as the miller's barn in 1864, became a distillery shortly thereafter. It was returned to use as a barn by 1878. Around the turn of the century, the building was renovated as a residence. This structure is still extant.

The primary residence of the Peirce/Shoemaker familes was located to the west and slightly south of the Mill, on a hill overlooking the creek flats of the flood plain. Historic maps suggest that there were two outbuildings associated with this complex—a large barn and a small unidentified building. As the Shoemaker family prospered, their house was enlarged. The number of outbuildings increased to four by 1893. Further research is needed to determine the exact appearance of the residence. By 1864, the house had a porch extending the length of the eastern façade, illustrating the incorporation of the exterior landscape into living space, as at the residence at Linnaean Hill the other

Peirce property along Rock Creek. To the southeast of the point where Peirce Mill Road split to head north and south were two buildings. The smaller of the two was identified as an ice house according to a 1864 map. The other building was identified as the "family house." The appearance of these building is not known. One most likely became the current "springhouse" and one building was razed.

During the height of the Shoemaker milling enterprise a second sawmill was built. Located to the immediate north of the grist mill, the sawmill was constructed during the 1860s. The sawmill was removed by 1890.

In 1892 the Peirce/Shoemaker property was divided. A portion of the land, that upon which the Mill, Peirce Barn and springhouse sat, was acquired by the government. The rest of the property remained in private holdings.

By 1897, the Mill had stopped operation due to a broken mechanical part. In addition, the lease-holders of the Mill realized that the extent of government control over the milling enterprise would most likely prevent the continued success of the Mill. Peirce Mill, remained empty for a number of years, suffering slight vandalism. According to A late nineteenth-century photograph, the Mill had six-over-six double-hung, wood sash windows. An angled, enclosed brick chimney and two symmetrically placed dormer windows were located on the eastern elevation (see Figure 2-8).

About 1905 Peirce Mill was rehabilitated for use as a tea house. Alterations were made to the interior and exterior of the Mill. Two-over-two double-hung wood sash windows replaced the six-over-six sash. Window boxes were added on all facades. The two dormers were retained from the previous era, as was the brick chimney. A metal chimney pipe projecting from the roof on the west façade, and another extending out of the chimney revealed the new requirements of the recreational site. The millraces associated with the sawmill and the grist mill were filled in during the first decade to allow for more extensive picnic area development. In the early 1920s a rustic picnic shelter was constructed just south of the Tilden Street Bridge. Utilizing peeled logs and rough cut timber, this gable roofed structure clearly illustrated the rustic park architectural design in use throughout the park. This structure is no longer extant. In 1912 a temporary structure, of an unknown design, was built for use as a comfort station. In ca. 1920 this comfort station was replaced with a comfort station at the north side of the Peirce Barn. The Mill remained relatively unaltered, save for a new roof in 1919, throughout the first few decades of the twentieth century. In 1931 a one-story screened porch was attached to the north façade of the Mill. Stripped awnings shaded the visitors in the summer time. In 1913 the springhouse was surrounded on three sides by a horseshoe shaped dry laid granite retaining wall to protect the building within the newly constructed Tilden Street median strip.

During the first few decades of the twentieth-century, extensive residential development was occurring on the hillsides west of the Mill. The large barn was razed as was the timber framed Mill overseer's house and the springhouse was rehabilitated.

In 1934 a Historic American Buildings Survey (HABS) study was completed, detailing the history and composition of the Peirce Mill, Peirce Barn and springhouse. In an effort to recreate the nineteenth-century milling industry as a living history interpretive site, these buildings underwent extensive restoration. The first alteration was the removal of the screen porch at Peirce Mill. A new roof was then added. The dormers were removed and the chimney altered to reflect its late nineteenth-century appearance. The two-over-two double hung, wood sash windows were replaced with nine-over-six double hung sash. A water wheel was constructed on the north façade of the building. A millrace was reconstructed in the approximate location of the late nineteenth-century alignment and the boulder dam was raised eight inches to facilitate the milling mechanics and to increase the noise screen generated by the falling water. The Peirce Barn and springhouse also underwent exterior façade restoration. At this time a garage was added to the southwest corner of the wagon barn. The stone was repointed. The interiors were altered to allow use as park offices and residences.

By the late 1950s, the millrace and mill wheel had again fell into disuse. The race was filled in during the late 1960s. The buildings remained relatively unaltered until 1968 when a new roof was installed on Peirce Mill. In addition, the garage was removed from the wagon barn/stable and another addition was built in the northwest corner, near the comfort station. Shortly after this building campaign, another was instigated to re-establish a living history interpretation of the milling site. A new millrace was built. In 1970, the wagon barn was converted to an art space, necessitating slight changes to the interior and exterior of the building. In the 1990s a small gable-roofed, irregularly-laid stone shed was attached to the south elevation of the Mill. In 1997, the northern corner of the springhouse suffered extensive damage caused by a car collision. The structure was repaired in 1998. Other than these actions, the three buildings have not undergone large scale alteration since the 1960s.

Figure 4- 20: Peirce Mill, view from east, 2008. (source: QE|A, 2449, 2450 and 2451)

Summary of Integrity related to Buildings and Structures

The structures that remain on the Peirce Mill landscape retain elements from the first and third periods of significance—the nineteenth-century milling/agricultural era and the 1930s period of restoration.

Cluster Arrangement

Cluster arrangement on the Peirce Mill landscape has been determined by the site topography and the creek alignment. During the nineteenth-century three primary building clusters were apparent, defined by unique functional use. They were, the industrial cluster whose primary building was the grist mill; the residential cluster including the main Peirce/Shoemaker house and associated outbuildings; and the agricultural/horticultural cluster which included a large barn, a springhouse and an ice house.

Currently, the only cluster that remains visible and integrated into the Rock Creek Park landscape is the industrial cluster including the grist mill and wagon barn. These structures were located on the west bank of Rock Creek close to major transportation routes, just north of Tilden Street (previously Peirce Mill Road.) During the nineteenth-century, a miller's residence and distillery/barn were located across the road, west of the Mill. In addition, a sawmill was located immediately north of the grist mill. Built within the flood plain of Rock Creek, the placement of these structures took advantage of available water power. The miller's residence and sawmill are no longer extant. The distillery/barn associated with the miller's house was renovated as a residence early this century and is outside of boundary of Rock Creek Park.

The second building cluster apparent during the nineteenth-century was the residential cluster of the Peirce/Shoemaker family. Located to the southwest of the milling area, the house and associated outbuildings were placed at a higher elevation than the Mill, out of the flood plain of Rock Creek and within reach of cooling breezes. Oriented west toward Peirce Mill Road, the house sat at the end of an entrance drive. Three outbuildings stepped down the east facing slope behind the house. The land upon which the Peirce Shoemaker buildings were once located is not under National Park Service ownership.

The final cluster comprised the agricultural and horticultural buildings located to the west of the Mill, south of the orchards. This loose cluster of buildings was defined by a large barn, a springhouse, and/or an ice house and a corral. Once evidence of the wide variety of activities undertaken by Peirce/Shoemakers on the Peirce Mill landscape, only the springhouse remains.

With the acquisition of Peirce Mill by Rock Creek Park administration in 1892, the residential and agricultural clusters were divided from the commercial milling cluster. The property to the west of the Peirce Mill carriage house and the southern meadow was developed into residential subdivisions. Although the springhouse was preserved, it was isolated within a road median, with the surrounding landscape altered drastically.

Currently the only historic cluster of buildings that dates to the nineteenth-century is the milling cluster located near Rock Creek. Additional structures were added to this cluster during the early part of the twentieth century to accommodate a growing emphasis on park visitors.

Separated from its nineteenth-century context, the milling cluster loses some of its integrity as a nineteenth-century milling site. The loss of the millyard, historically located between the barn and the Mill, contributes to the loss of historic integrity. However, as a recreational interest point within the landscape of Rock Creek Park, this cluster, surrounded on the east north and south by early twentieth century picnic areas, retains integrity relating to both of its twentieth-century significance period. Though associated nineteenth-century building clusters have been lost, the development occurring since park acquisition, illustrates the transition of the site, from a practical commercial enterprise to a recreational park destination.

Views and Vistas

The views apparent during the nineteenth-century arose from the utilitarian nature of the landscape. Though most likely not consciously designed, the broad views available on the cleared land, from both the Peirce/Shoemaker residence and the Mill, served to connect various use areas. Beginning in the early twentieth-century, with the transfer of the property to the management of Rock Creek Park, views were designed to enhance the picturesque landscape—providing connections, not between utilitarian areas, but between Peirce Mill as a destination and the broader Rock Creek Park landscape. A conceptual diagram illustrates existing and non-extant views at the Peirce Mill complex (see Figure 4-21).

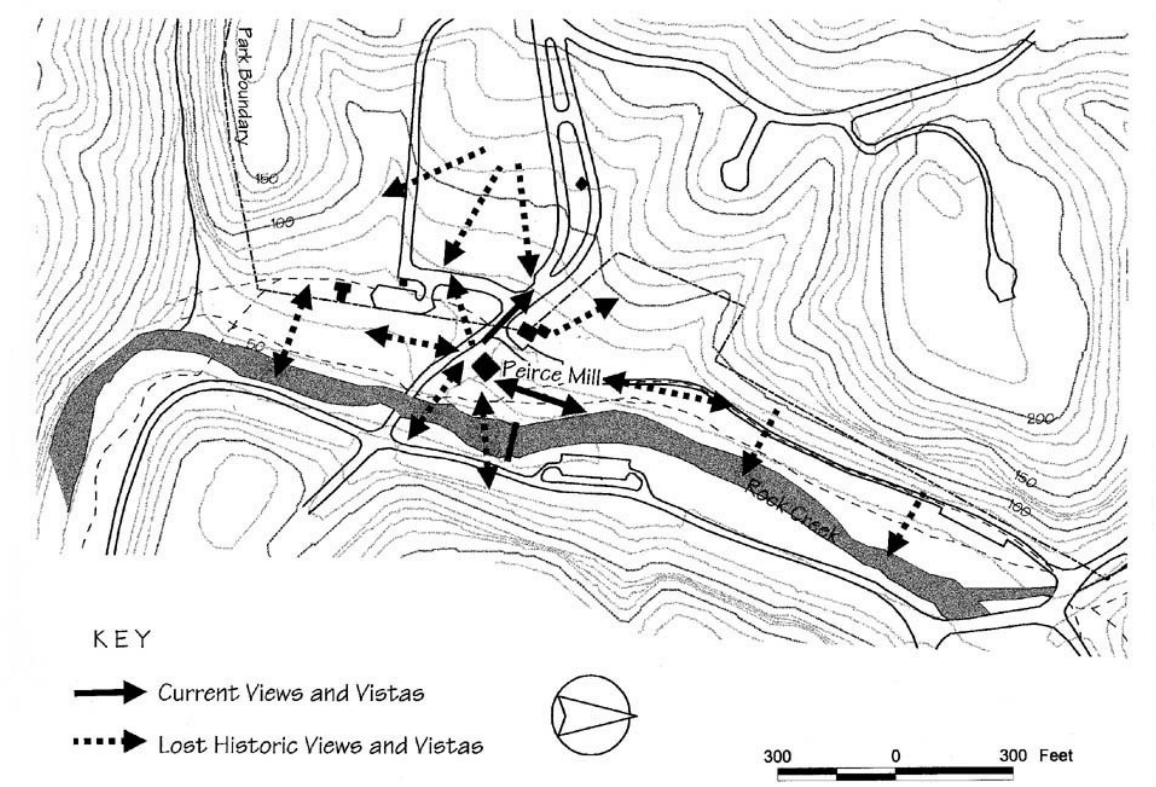


Figure 4- 21: Views and Vistas (Source: Cultural Landscape Inventory, Peirce Mill, Part 3b, page 20).

Historical Development related to Views and Vistas

Historically, the vegetation of the Peirce Mill landscape was much more open, which allowed expansive views in many directions. Beginning in the early nineteenth-century, the once wooded landscape surrounding Peirce Mill began to be cleared. An oil painting dating to around 1840 illustrates a view west from the ford over Rock Creek, up the eastern facing slope of Peirce Mill Road [currently Tilden Street]. Riparian vegetation appears to frame the Mill with fruit trees growing in lines, barely visible in the background. Such views, though allowing for the painter's artistic license, were not the affect of design decisions, but instead were the result of pragmatic land alteration generated by agricultural and horticultural uses.

By 1861, most of the woody vegetation had been cleared in the area around the Mill and the Peirce/Shoemaker. The large meadow east of the Peirce Shoemaker residence was used for grazing. The relatively high elevation of the residence would have allowed for panoramic views. In contrast, due to the low elevation of the Mill, views from this area would have been limited. The westward view presented the orchards ascending the east facing slope bounded by hedgerows of cedar and split rail fences. A narrow view through the alignment of the ford over Rock Creek, would have allowed visibility to the opposite bank and up the road to the west. Views north toward Broad Branch Road through the area cleared for the millrace, also would have been apparent. Views along the road that led to Blagden Mill, and from the road to the creek and meadow would have also been possible.

By the late nineteenth-century, the Peirce/Shoemaker residence was increasingly enclosed by trees, screening views into surrounding areas. Views south from Peirce Mill into the meadow area were also truncated due to a rise in the elevation of the Tilden Street Bridge. Tree growth also increased north of the Mill. Westward, the vegetation remained open, the orchard trees and agricultural buildings visible, though surrounding residential development on the distant hillsides was screened.

Beginning in the early years of the twentieth-century, the Peirce Mill landscape underwent drastic change, both programmatically and physically. Due to the division of the property with the formation of Rock Creek Park, adjacent land once visible from the Mill became blocked by woody vegetation (see Figure 4-22). Yet though the vegetation levels in the vicinity of the Mill were allowed to increase, their location was controlled to create vistas in the landscape. For instance, when the Peirce Mill dam was created in 1904, vistas framed by vegetation accented the picturesque qualities of its boulder structure (see Figure 4-23). New bridle and pedestrian paths were introduced. From these circulation routes, views were created, placing the Mill as a recreational destination within the park setting. While the Mill and wagon barn themselves were accented, the agricultural and horticultural aspects of the landscape were relatively ignored. Successionary vegetation and invasives continued to grow and partially hide views to the once open land east across the creek.

Figure 4- 22: Dam with Mill and Barn in background facing west, 2008. (source: QEA)

Figure 4- 23: Dam with Mill and Barn in background, facing west, 1966. (source: Rock Creek Park Historic Photograph Collection PM2-63, January 27, 1966, 9571-A)

Summary of Integrity related to Views and Vistas

With the rehabilitation of Peirce Mill in the 1930s much of the vegetation immediately surrounding the Mill was cut back. The landscape east of the Mill spread flat to the water's edge, held up by a retaining wall. The view of the historic ford across the creek was lost. Since this rehabilitation, views have continued to be lost to invasive and successional growth. The boulder dam, once an integral part of the Peirce Mill landscape, is visible only through tiny breaks in the grape vines which cover much of the riparian vegetation along the creek banks. This loss of historic views greatly diminishes the integrity of the Peirce Mill landscape.

Constructed Water Features

There are three primary constructed water features which were integral to the development of the Peirce Mill landscape that retain some integrity through physical evidence on the landscape. These were the late nineteenth-century crib dam, the circa 1904 boulder dam and the 1935 millrace. Though the landscape retains only faint traces of the millrace and crib dam through soil depressions and rock piles respectively, each played an important roll in the evolution of land use at Peirce Mill. The historic integrity of the boulder dam, though subsequently altered, has been preserved to a great extent.

The configuration of the earliest millrace on the property, most likely dating around 1830, is not known. By 1861, maps illustrate the millrace as a line running parallel to Rock Creek, extending from the mill wheel on the north façade. The head gates appear to have been located almost as far north as the intersection of Broad Branch and the road that ran north from Peirce Mill to Blagden Mill on the west side of the creek. During the mid-1860s a sawmill was constructed just north of the Peirce grist mill. This structure most likely utilized the millrace associated with the grist mill. The 1866 Michler Map reveals the general arrangement of the mills. By 1890 this saw mill had been removed and the millrace, which once extended north almost to Broad Branch Road, had been drastically shortened. Running parallel to the road, the altered millrace extended to the head gates, located just upstream from a crib dam. The race was constructed with irregular, dry-laid stone walls. The crib dam, the current remnants of which still reveal its location in the creek, crossed Rock Creek at an angle, approximately one hundred yards north of Peirce Mill. The dam was constructed by forming an interlacing basket of timbers. The timber frame was then filled with stones to improve strength and stability. This extensive dam realigned the creek—pushing its course eastward. This dam remained in place through the last years of the commercial mill enterprise in the late nineteenth-century. Sometime between 1899 and 1904, the crib dam was washed out in a flood. In addition historic maps indicate that in the late nineteenth-century a circular pool was constructed to the west of the distillery/barn associated with the miller's house. The purpose of this constructed water feature is not known.

With the acquisition of the Peirce property by Rock Creek Park administration, new recreational uses were introduced onto the landscape. Peirce Mill was converted into a tea house and the surrounding landscape was engineered with picturesque features to

improve its scenic qualities. The dam was constructed in 1904 by Otto Strange at a cost of approximately four thousand dollars. The boulder dam, designed in much the same style as Boulder Bridge (circa 1902), reflects the Picturesque aesthetic, prominent during the time period. Utilizing native materials and a rustic building technique, the dam was constructed purely as a means of improving the beauty of the Peirce Mill picnic area and tea house by providing a focal point in the landscape. The sound of falling water provided a pleasant background noise. The dam, built on a foundation of concrete with a field stone facing on the downstream side, served no milling function. The still extant dam is one hundred feet long and has a spillway of forty feet was located in the center. Masonry wings were added to the dam in 1905. During the 1930s restoration of Peirce Mill, the height of the dam was increased and the boulders were repointed by the Civilian Conservation Corp. Few other alterations have been made to the dam itself, but recently a fish ladder was constructed adjacent to the eastern end of the dam.

During the early twentieth century, alterations were also made to the nineteenth-century remnant millraces. To accommodate the picnicking visitors, in 1908 the sawmill raceway was filled in. In 1914 the rest of the millrace which extended to the previous location of the crib dam was also removed, though deep depressions remained in the landscape to reveal the previous race location. The depressions adjacent to the north of the Mill, however, were removed with the construction of the screen porch in 1931. Between 1934 and 1936 Peirce Mill underwent extensive restoration. The millrace was reconstructed. The race was located in the approximate location of the late nineteenth-century millrace which had extended from the mill wheel to the crib dam. The walls of the race were constructed of mortared, regularly cut and laid stone. The boulder dam was also raised at this time to allow for the use of the water wheel. This race remained in place until the late 1960s when it too was filled in. In the late 1960s the desire for a working Mill spurred the construction of another millrace of a far more modest design. The design, without historical precedent, extended from the mill wheel east to the creek and used city water for power. This race, like the 1930s raceway, is constructed of regularly laid and mortared, cut stone. This head race remains today, and is not historically significant. The tailrace reflects the historic alignment and is a contributing feature.

The various generations of raceways and dams influenced the development of the Peirce Mill landscape in many ways. The alignment and construction method of each millrace and dam reflected the technology and later, the restoration philosophy, of the time in which it was created. For instance, the boulder dam created in the earliest years of Rock Creek Park illustrated the era's emphasis on the beauty of the natural landscape and on the desire to embellish that landscape to improve visitor experience. The 1930s restoration of the Mill and alteration of the landscape also reflected the apparent desires of the park visitor. The building, landscape and raceway were altered to create a 1930s vision of a nineteenth-century utilitarian landscape. For example, the millrace was reconstructed with methods and in a style more formal that ever existed in the nineteenth-century in order to recreate the process of nineteenth-century milling. As such, successive alterations to the landscape are important in understanding the evolution of programmatic

change on the Peirce Mill site, though individually not all alterations are historically significant.

Figure 4- 24: Dam from west, 2008. (source: QE|A 2433 and 2434)

Figure 4- 25: View of the Dam from the south is obscured by vegetation in some areas, 2008. (source: QE|A 2452)

Figure 4- 26: Dam from south, 2008. (source: QE|A 2453)

Figure 4- 27: West elevation of Peirce Mill and small scale features (note head race in middle left of image), 1965. (source: Rock Creek Park Historic Photograph Collection PM2-62, Peirce Mill, west façade, clean-up day, Boy Scouts, August 1, 1965, 9336-L)

Small Scale Features

The small scale features currently located on the Peirce Mill landscape originated during the twentieth-century. These include signage, fencing, guard rails, lighting fixtures, an outdoor fireplace, utilities and site furniture.

Historical Development related to Small-scale Features

The known small-scale features associated with the nineteenth-century development of the landscape surrounding Peirce Mill, reflected the practical requirements of the agricultural, horticultural and milling enterprises. The earliest evidence of small-scale features is from an oil painting dating to the 1840s. Though allowing for artistic license, this painting suggested a split rail fence running parallel to the creek in front of a log structure located to the south of the Mill (see Figure 2-2). The Boschke Map (1861) illustrated extensive use of fencing for agricultural and husbandry purposes (see Figure 2-4). Fencing also divided the creek from the pasture south of the Mill. Defining the boundaries of the pasture north of the Mill, a fence also formed a rectilinear space in the landscape. Corrals or barnyards were located near the two large barns on the site—one near the barn associated with the Peirce Shoemaker residence and one near the barn located to the west of the carriage house and Mill. A fence also divided the area between the orchard and the surrounding pasture land. The appearance and construction methods of the fencing are not known, except as garnered from the representation given in the early nineteenth-century painting.

Much of the previously described fencing configuration, which during the mid nineteenth-century defined areas of pasture land, no longer appeared on a map of the area in 1893. Instead fencing was concentrated around agricultural buildings, creating large pens. In addition a fence was located to the immediate west of the road that led from Peirce Mill to Blagden Mill, in the vicinity of the carriage house (see Figure 2-10).

Most of the evidence of late nineteenth-century and early twentieth-century small-scale features on site is drawn from a photographic analysis of Peirce Mill and the surrounding area. A photograph of the west elevation of the Mill, circa 1897, shows a stone post, approximately three feet high, located to the southwest of the building (see Figure 4-6). Perhaps used as a hitching post or as a block to prevent carts from hitting the edge of the building, this post most likely dates to the era in which Peirce Mill was an industrial enterprise.

With the renovation of Peirce Mill into a tea house in the early twentieth-century, small-scale details were added to the site to fulfill the needs of visitors. Moreover, embellishment of the site to improve its picturesque appearance also stimulated the additions. These additions reflected the rustic-style picturesque aesthetic, characteristic of the time period and used elsewhere in Rock Creek Park. For instance, in 1927 a rustic sign was located just west of Peirce Mill (see Figure 4-28). With an unpeeled log frame surrounding a map of Rock Creek Park and a small timber edged planting bed at its base, the sign reflected this popular design style. Window boxes were added to all windows early in the century. Rustic styled footbridges spanned the depressions left by the

nineteenth-century millraces. A wood hitching post with a metal horse head was located at the northwest corner of the building. The planting bed at the base of the west elevation was defined through the use of an iron "hoop" edging. Finally, a rustic style wood bench was located on the western bank of the creek, positioned to have a view of the boulder dam (see Figure 2-17). Save the bench (although in a different location) none of the described features are extant.

The introduction of small-scale features was also associated with the development of the picnic areas surrounding the Mill. North of the Mill, near the headrace of the late nineteenth-century dam, a stone fireplace was built during the 1920s. It is no longer extant. A stone fireplace and stone grill were also located on the eastern bank of the creek, in the picnic area north of Peirce Mill and are still extant (see Figures 4-29 and 4-30). The stone fireplaces were designed in the Rustic style and constructed throughout Rock Creek Park. Six remain in the park including the one at East Grove 2 as well as others at picnic areas 6a, 6b, 7, 8 and 13.[2] These structures exemplified the fireplace types advocated by Albert H. Good in the design source book, *Park and Recreation Structures*.[3]

Figure 4- 28: Rustic sign, window boxes, shutters, and hedge at Peirce Mill, post 1927. (source: National Park Service, National Capital Regional Office, PM1-34)

Figure 4- 29: Rustic Fireplace at East Grove 2 Picnic Area, facing east, 2008 (source: QEA 2393)

Figure 4- 30: Stone Grill at East Grove 2 Picnic Area, facing north, note the close proximity to the creek bank, 2008 (source: QEA 2395)

Wood picnic tables and benches were also associated with the picnic area development. The exact appearance of these early twentieth-century site furnishings is not known. In 1926 metal playground equipment, including a swing set and a teeter-totter, was installed, south of the Mill across Tilden Street. "Washington" benches were introduced to the site by the 1930s (see Figure 4-31). An iron drinking fountain was located near the northwest corner of the Mill during this time period, as was a trellis on the south end of the west façade. Following the rehabilitation of the Mill in the late 1960s, other additions were made. To the west of the Mill, bordering the eastern edge of the parking area, a drinking fountain was installed. Of uncut, mortared stone construction, this fountain is still extant. In the picnic area south of Peirce Mill, multiple container, brown painted metal waste receptacles in the "tulip" style were installed during the 1960s as well. These are no longer extant. Currently wood picnic tables with metal braces and recycled plastic tables are located in Grove 1 area, south of Peirce Mill. Picnic tables are also located at the other two picnic areas.

Figure 4- 31: Washington Bench and flagstone steps and pavement at the west entrance to Peirce Mill, 2008. (source: QEA 2505)

Small-scale features were also associated with the development of circulation systems on the Peirce Mill landscape. According to early twentieth-century photographic documentation, the light standards which bordered Tilden Street, conformed to those in other areas of the park. The cast iron posts were topped with a curvilinear design accented by a center acorn droop. These light standards have been removed. Timber

guard rails were also used extensively during the 1920s and 1930s to separate circulation and parking areas. A timber guard rail, approximately two feet high, was located to the south of Tilden Street on the bridge approach. Guard rails also divided the parking area, located to the east of the Mill and used from 1931 to 1936, from the surrounding pedestrian spaces (see Figures 2-16 and 2-17).

A guard rail also defined the parking area located to the west of the Mill. This railing replaced the boulders utilized before the construction of the screen porch in 1931, and has since been removed. With the construction of the current picnic pavilion in the late 1950s, a parking area was constructed south of Tilden Street. Boulders were used to define the edge of this cinder paved area. A portion of this "boulderization" remains. Two cut stone tree wells were also built into the east facing slope of the parking lot. The northern tree well is in moderately good condition; the southern one is severely damaged.

Additional signage was developed during the 1960-1980s to assist in the interpretation of the site. The current signage around the Peirce Mill landscape includes informational signs, regulatory signs, and interpretive signs and waysides. Informational signs are brown metal signs with white lettering, mounted on brown posts (see Figures 3-29 and 4-32). Regulatory signs are also mounted on brown posts and are metal signs, but their colors and symbols respond to standards for traffic and directional signs (see Figure 4-32). Interpretive signs and waysides vary to include the kiosk north of the Mill (see Figure 3-30), a simple interpretive sign with text on the west side of Peirce Mill (see Figure 4-33), and waysides with color graphics (see Figure 4-34).

Figure 4- 32: Informational and Regulatory signs at the Peirce Mill Barn, 2008. (source: QEA 2522)

Figure 4- 33: Interpretive sign, headrace, and fences at Peirce Mill, facing east, 2008. (source: QEA 2511)

Figure 4- 34: Wayside with information about the fish ladder at Peirce Mill, 2008 (source: QEA 2381)

Summary of Integrity related to Small-scale Features

The integrity of the small-scale features of the Peirce Mill landscape has been severely diminished by the loss of historic site furniture, signage and lighting fixtures. Currently the design and placement of signage and small-scale features on site does not contribute to a sense of historic continuity within the landscape. Instead such features detract from the historic character of the site.

Table 4-1: Peirce Mill Buildings and Landscape Features

Buildings and Landscape Features	Contributing or Non-Contributing	Rationale
Peirce Mill	contributing	Primary building related to each period of significance.
Barn	contributing	Primary building related to each period of significance.
Comfort station	non-contributing	Constructed after end of period of significance.
Grove 1 picnic shelter	non-contributing	Constructed after end of period of significance.
Utility building at Grove 1	non-contributing	Constructed after end of period of significance.
Springhouse (outside project area)	contributing	Primary feature related to the earliest period of significance, 1800-1890.
Stone walls at Springhouse	contributing	Primary feature related to the earliest period of significance, 1800-1890.
Rock Creek	contributing	Primary feature related to all periods of significance.
Parking lot and sidewalks at Peirce Mill	non-contributing	Constructed after end of period of significance.
Historic road alignment	contributing	Primary feature related to each period of significance.
Remnant of ford	contributing	Primary feature related to earliest period of significance, 1800-1890.
Mature canopy trees	contributing	Selected plants are related to the latest period of significance, 1933-1950.
Cedars at Tilden across from Barn	contributing	Similar trees were present in this location during the latest period of significance, 1933-1950.
Extant tailrace north and east of Mill	contributing	Primary feature related to latest period of significance, 1933-1950, and representative of all periods of significance.
Millrace west of Mill	Non-contributing	Alignment added after 1950.
Archeological feature- 1930s millrace	contributing	Constructed during 1933-1950 period of significance.
Archeological feature – old millrace	contributing	Related to earliest period of significance, 1800-1890.
Bike path from tunnel at Tilden to parking lot	Non-contributing	Alignment added after 1950.

Buildings and Landscape Features	Contributing or Non-Contributing	Rationale
Bridge over millrace	Non-contributing	Added after 1950, however there was a pedestrian bridge over the millrace during the 1933-1950 period of significance.
Retaining wall at creek edge near Tilden	Non-contributing	Constructed after end of period of significance.
Tilden Street	Contributing	Although the alignment dates to the second period of significance, the current elevation of the road is significantly higher today than it was historically.
Tilden Street Bridge	Contributing	Although the alignment dates to the second period of significance, the current elevation of the bridge is higher today than it was historically.
Multi-use trail underpass at Tilden Street	contributing	1930's alignment
Kiosk	non-contributing	Constructed after end of period of significance (pos).
Dam	contributing	Primary resource related to 1891-1932 and 1933-1950 periods of significance.
Remnants of crib dam	contributing	Primary feature related to earliest period of significance, 1800-1890.
Retaining wall and headgate	contributing	Primary feature related to earliest period of significance, 1800-1890.
Unpaved path along creek edge	Non-contributing	No documentation regarding this alignment during the periods of significance.
Retaining wall south of Mill	Non-contributing	Constructed after end of pos.
Dense vegetation south of Mill	Non-contributing	Constructed after end of period of significance.
Signs	Non-contributing	Constructed after end of period of significance.
Split-rail fence, bollards, and other site furniture	Non-contributing	Added after end of period of significance.
Open area north of barn	contributing	Related to two earliest periods of significance, 1800-1890 and 1891-1932 when orchards and open fields were prevalent on the slope.
Woods on east facing slopes	Non-contributing	Evolved after end of period of significance.
North Grove 2 parking lot	Non-contributing	Constructed after end of period of significance.
Vegetation along creek edge	Majority is non-contributing	Species and character of vegetation along creek bank has changed and is impacting views.
North Grove 2 area	Non-contributing	Evolved after end of period of significance.
East Grove 2 parking lot	Non-contributing	Constructed after end of period of significance.

Buildings and Landscape Features	Contributing or Non-Contributing	Rationale
East Grove 2 area	Contributing	Contains features related to the latest period of significance, 1933-1950.
Stone fireplace and fire pit at Grove 2	contributing	Related to the latest period of significance, 1933-1950.
Fish ladder and retaining wall	Non-contributing	Constructed after end of period of significance.
Grove 1 parking lot	Non-contributing	Constructed after end of period of significance.
Unpaved path at Grove 1	Non-contributing	Evolved after end of period of significance.
Bike path at Grove 1	Non-contributing	Constructed after end of period of significance.
Pedestrian/bike bridge at south end of project area	Non-contributing	Constructed after end of period of significance.

[1] Of particular use are the following documents: Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan, *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques*, 1998; Charles A. Birnbaum and Christine Capella Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, 1996; and Linda Flint McClelland, J. Timothy Keller, Genevieve P. Keller, and Robert Z. Melnick, *National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes*.
[2] Bushong, 1990, 183.
[3] Albert H. Good, *Park and Recreation Structures*, 1938 (New York: Princeton Architectural Press).

Chapter 5: National Register

Chapter 5: National Register

National Register Status

The Peirce Mill historic landscape is located within the Rock Creek Historic District, or reservation 339, which was listed on the National Register in 1991. Peirce Mill, the barn, and the springhouse were listed on the National Register in 1969 as individual structures. Although it has not been formally nominated, the landscape associated with the property is historically significant under National Register criterion A.

There are three periods of significance for the Peirce Mill landscape, spanning the years 1800 to 1951. The three periods of significance correspond to the first three periods of significance for Rock Creek Park overall (1800-1890, 1891-1932, and 1933-1951). During the first period of significance, 1800 to 1890, the milling operation was redeveloped and agricultural enterprises were established on the property by Isaac and Abner Peirce and Peirce Shoemaker. The landscape was utilitarian in character with developments directly related to the milling and agricultural activities. From 1891 until 1933 the site was used for passive recreation, equestrian trails, and as a picturesque tea house and picnic grounds important in the development of early Rock Creek Park recreational and interpretive programs. The associated picturesque landscape included ornamental plants, fences, and other features designed specifically to enhance the scenic beauty of the site. The final period of significance spans from 1934 to 1951, an era during which the mill was restored and the surrounding landscape was designed to compliment the mill's use as a living history museum. The rehabilitation, funded by the Works Progress Administration as part of the New Deal legislation, was undertaken by the Civilian Conservation Corps and overseen by Thomas T. Waterman, considered a master of architectural restoration by his contemporaries. The landscape was manipulated to compliment the structures and provide a representation of the functional relationship between the creek and the mill as well as to serve the visitors in a park-like environment. The emphasis on the landscape was not to restore it to its historic conditions. Since 1951 the landscape at the site has undergone other substantial changes, resulting in the current assemblage of landscape elements.

Overview of Integrity

The Peirce Mill landscape retains significant landscape elements related to the nineteenth-century utilitarian landscape, the early twentieth century picturesque design and the mid twentieth-century living history interpretative site. These eras are overlaid with the current landscape management approach. This layering of historic land use has resulted in a site which retains limited integrity to any one period of significance, but provides a mosaic of landscape elements relating to multiple development periods. The following section provides an overview of the integrity of the Peirce Mill landscape related to the Secretary of Interior's seven aspects of historic integrity, with an overall summary of integrity provided at the end of the chapter.

Location

The primary resources related to the Peirce Mill complex, including the mill, creek, historic road route and barn, have remained in their locations throughout each historic period. The vegetative patterns, dam, and recreational trail alignments retain integrity related to the twentieth-century periods of significance.

Design

Although elements of the nineteenth-century milling and agricultural landscape remain, the historic spatial organization of the agricultural and milling landscape has been degraded due to the removal of historic structures, changes to topography, circulation, and views, and the loss of historic land use related to milling, agriculture, recreation, and transportation. The main impacts related to the aspect of design are associated with alterations to Tilden Street and the addition of the driveway and parking lot between the mill and barn. These changes eliminated the historic road and mill yard and obscured the route to the ford that crossed Rock Creek at the mill. Another impact to the integrity of design at the site occurred in the loss of the historic functioning raceway(s) that brought the water from the creek to the mill.

Setting

The relationship between the mill and the creek; the general topography of the overall project area, and the hardwood forest on the northern, eastern, and southern slopes, have remained consistent from the earliest period of significance to today. These aspects create a broad setting that retains integrity. On the other hand, some aspects of the setting at Peirce Mill were changed multiple times during the historic periods and since.

Integrity of setting at Peirce Mill has been lost for the earliest period of significance, due to alterations to the physical landscape as well as loss of the industrial activities related to milling and agricultural production. Examples include the demise of the orchard on the east facing slope above the mill and the absence of the mill yard and ford in the immediate area surrounding the mill. The overall landscape no longer retains the utilitarian character associated with the 1800-1890 period. In relation to the second period of significance, from 1891 through 1932, the setting at the Peirce Mill site no longer includes key elements related to the designed pastoral landscape associated with the tea house and equestrian trails. However, the significant relationship between Peirce Mill and Rock Creek Park remains intact as do many features from this period. The overall result is that the landscape at Peirce Mill retains integrity of setting related to the final period of significance, from 1933 to 1951.

Materials

Although several buildings and landscape features associated with the Peirce Mill landscape during the nineteenth-century and early twentieth-century are no longer extant, several primary structures which defined the milling and the later park character (i.e. the mill, barn, springhouse, and dam) remain intact. Although the loss of nineteenth-century agricultural and residential structures, in particular outbuildings, the

mill race(s), and the ford, historic road, and mill yard, has reduced the integrity of materials associated with the landscape, the extant buildings and features contain sufficient materials related to each period of significance to retain integrity. The loss of historic vegetation, views, millraces, and the road may be mitigated in the future with restoration efforts.

Workmanship

The mill, barn, springhouse, and dam at Peirce Mill retain integrity of workmanship and are reflective of the cultural traditions associated with the architecture significant to the property. The integrity of workmanship associated with the nineteenth and early twentieth-century landscape has been compromised due to the loss of historic characteristics formerly revealed in the spatial relationships of the landscape, however reintroduction of these features into the landscape is possible.

Feeling

Although the Peirce Mill site is no longer utilized as a milling operation, tea house, or living history museum, the buildings, structures, historic circulation systems, materials, organization, and open space at Peirce Mill contribute to the historic feeling at the site. The aspect of feeling is diminished related to the earliest period of significance, due to the loss of the milling and agricultural activities at the site. Restoration of the milling operation and a small orchard would enhance this aspect of integrity.

Association

The Peirce Mill landscape retains integrity of association related to the recreational and aesthetic aspects of the 1891-1933 and 1934-1951 periods of significance. The association between the Peirce Mill landscape and the milling and agricultural industry has been halted resulting in a lack of integrity related to the earliest period of significance.

Summary of Significance and Integrity

The Peirce Mill landscape is significant under criterion A for its representation of custom milling and agriculture from 1800 to 1890, a picturesque landscape used for refined recreation from 1891 through 1933, and a National Park Service living history museum from 1934 until 1951. Related to each of the periods of significance, the Peirce Mill landscape retains integrity of location, materials, workmanship, and feeling. In relation to the period of significance from 1934 to 1951 the landscape also retains its historic setting.

The integrity of the Peirce Mill landscape is degraded due to the loss of historic features and imposition of invasive and overgrown vegetation which reduces historic views. The current invasive growth also threatens historic vegetation. In addition, the integrity of the nineteenth-century milling and agricultural enterprise and the early twentieth-century park landscape has been diminished through insensitive grading, altering historic relationships among site structures, circulation patterns, and Rock

Creek. Removal of contributing structures and unsympathetic structural rehabilitation further compromise the site's integrity and condition. Yet features that define the historic landscape evolution remain. These include contributing roads, water features, structures, meadows, and limited vegetation. They illustrate both the early utilitarian landscape character and the design intent apparent during the early twentieth-century park enhancement.

Chapter 6: Management Philosophy

Chapter 6: Management Philosophy

Landscape Management Areas

The Cultural Landscape Inventory for Peirce Mill identifies three types of landscape character areas within the property, including picnic groves, naturalistic environments, and areas that are defined by historic resources. Landscape character areas are defined by their physical qualities (such as landforms, vegetation, and topography) and the cultural resources present.[1] The Peirce Mill landscape character areas serve as a framework for defining landscape management areas for the property.

Eight landscape management areas have been identified to organize the discussion of treatment alternatives. They are illustrated in Figure 6-1. Three landscape management areas are defined by historic resources. These include: 1) the historic core; 2) the springhouse area; and 3) the historic road and headrace area. Two landscape management areas are defined by naturalistic environments, including: 1) the wooded buffer area; and 2) the Rock Creek area. The three landscape management areas that are defined by picnic grounds are: 1) the north Grove 2 area; 2) the east Grove 2 area; and 3) the Grove 1 area.

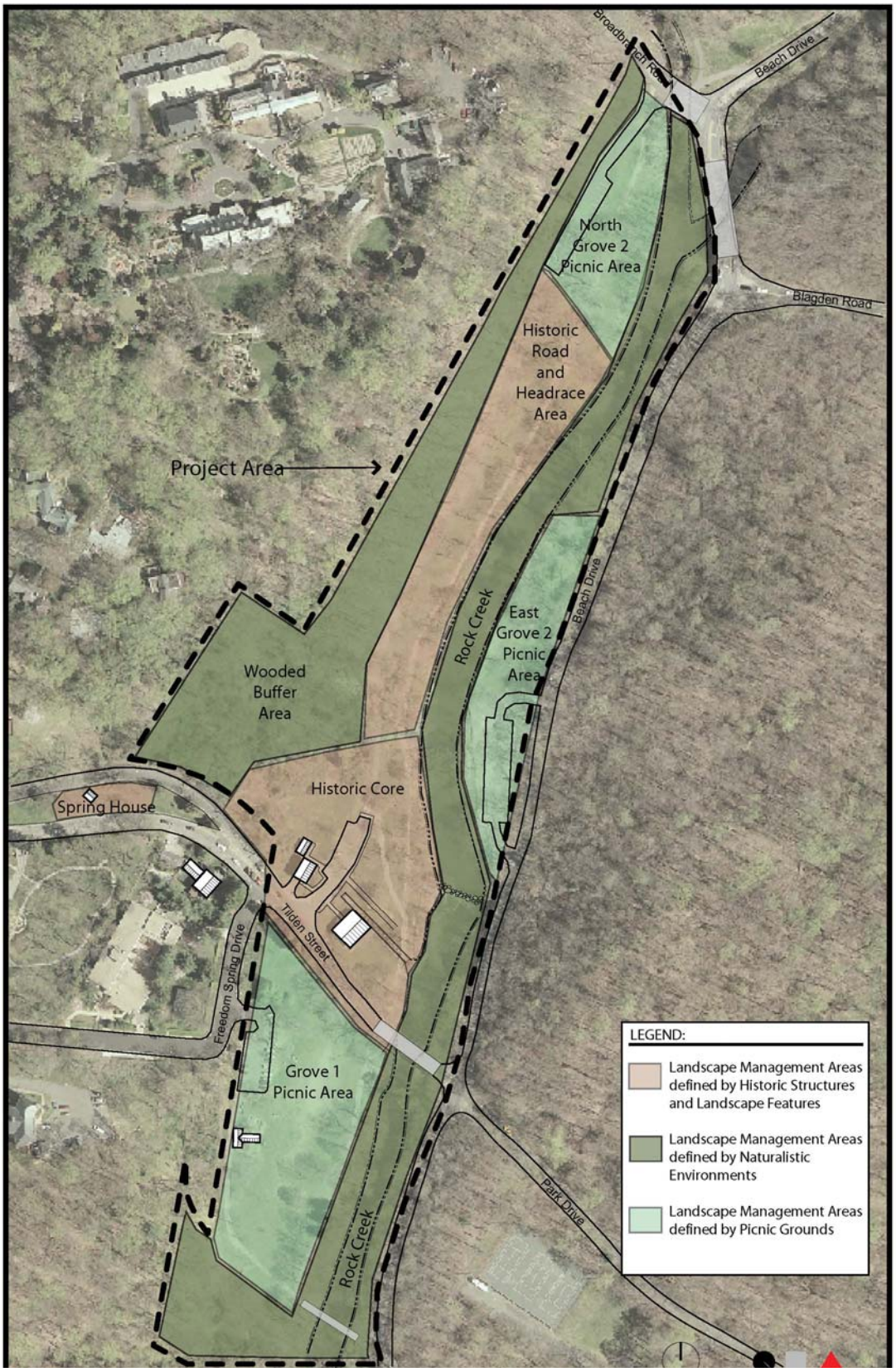


Figure 6- 1: Peirce Mill Landscape Management Areas.

Landscape Management Philosophy

The publication, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, provides professional standards and guidance for treatments to cultural landscapes listed in or eligible for the National Register of Historic Places. The document defines four types of treatment for historic landscapes, including preservation, restoration, reconstruction, and rehabilitation.[2] Each of the philosophies is described herein and discussed in relation to the historic landscape at Peirce Mill.

Preservation

Preservation involves applying measures to sustain the *existing* form, integrity, and materials of (the contributing features of) a historic property. This approach focuses upon stabilizing and protecting extant historic resources, rather than replacing missing elements. It is appropriate when a historic property is essentially intact and does not require extensive repair or replacement and when continuing or new use does not require additions or alterations. Depiction at one particular period of time is not appropriate.[3] Although a preservation management approach could be applied to the Peirce Mill landscape, it is not the most suitable philosophy for this site. An overall preservation philosophy precludes the introduction of new elements that will be utilized to improve the visitor experience and help to clarify the historic landscape.

Restoration

Restoration is the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period in time. This includes reconstruction of missing features from the restoration period, and removal of features from all other periods. The approach can be considered only when the property's significance during a particular period of time outweighs the loss of extant elements from other historical periods; and when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned.[4] Although a restoration approach can be suitably applied to select historic landscape elements at Peirce Mill, such as the mill wheel and head race, it is not the most fitting philosophy for the overall landscape. The significant extant features relate to more than one historic period, adequate documentary evidence does not exist to restore the property to one period, and contemporary needs require some alterations.

Reconstruction

Reconstruction is the act or process of using new construction to depict a non-surviving site, landscape, building, structure, or object as it appeared at a specific period of time in its historic location. The approach is appropriate only when the property's significance during a particular period of time outweighs the potential loss of extant features that characterize other historical periods. In addition, there must be substantial physical and documentary evidence for the work, and the work must be clearly identified as a contemporary re-creation.[5] As a whole, the Peirce Mill historic landscape is not eligible for reconstruction because significant extant features relate to more than one

historic period, adequate documentary evidence does not exist to reconstruct the property to one period, and contemporary needs require some alterations.

Rehabilitation

The act or process of rehabilitation allows repairs, alterations, and additions necessary to enable a compatible use for a property, as long as the portions or features which convey the historical, cultural, or architectural values are preserved. This approach is appropriate when depiction at one particular period of time is not appropriate; repair or replacement of deteriorated features is necessary; and alterations or additions are needed for a new use.[6]

Rehabilitation has been selected as the most appropriate overall management philosophy for the historic landscape at Peirce Mill in Rock Creek Park. This philosophy has been selected because of the existence of features that relate to more than one period of significance, the need for alterations to accommodate visitor services, and the need to protect the historic resources. This philosophy will allow for preservation, restoration, and reconstruction of selected features, as appropriate. Three alternative rehabilitation treatment approaches have been developed.

Endnotes

[1] Page, Robert R., Cathy A. Gilbert, and Susan A. Dolan, 1998. A Guide to Cultural Landscape Reports: Contents, Process, and Techniques (Washington, DC: U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program), 75. The document defines landscape character areas as: "defined by the physical qualities of a landscape (such as landforms, structural clusters, and masses of vegetation) and the type and concentration of cultural resources. Character areas are based on the existing condition of the characteristics and features that define and illustrate the significance of the landscape."
[2] Birnbaum, Charles A. and Christine Capella Peters, 1996. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Washington DC: Department of the Interior, National Park Service, 3-5.
[3] Ibid., 17-18.
[4] Ibid., 89-90.
[5] Ibid., 127-129.
[6] Ibid., 47-48.

Chapter 7: General Management Recommendations

Chapter 7: General Management Recommendations

This chapter provides an overview of landscape management goals and objectives as well as management issues and general recommendations related to the historic landscape at Peirce Mill. Management issues and recommendations for addressing those topics are outlined for each landscape characteristic, including spatial organization and cluster arrangement, land use, topography and drainage, vegetation, circulation, buildings and structures, views, constructed water features, and small scale features. Chapter 8, Recommended Treatment, provides more detailed design guidance for the Peirce Mill project area and historic core and Chapter 9, Phasing Plan, provides direction for implementing the recommendations.

Landscape Management Goals and Objectives

Landscape Management Goals:

- Provide guidance for future management of the landscapes within the Peirce Mill project boundary by developing management guidelines for the overall property.
- Provide schematic design recommendations for the overall project area and the historic core.

Landscape Management Objectives:

- Preserve the extant historic resources within the project area.
- Utilize the landscape to enhance visitors' experience and understanding of the historic activities at the site.
    - Restore the existing millrace.
    - Interpret the historic millrace, headgate, dam, and dam remnants.
    - Interpret the relationship between the creek and the Mill.
- Enhance the relationships between the Mill and the surrounding landscape.
- Provide a gathering space for visitors between the Mill and barn.
- Reduce circulation conflicts between pedestrians, bikes, and vehicles.
- Improve visitor safety, especially related to crossing busy roads.
- Provide universally accessible routes to the primary features at the site.

Management Issues and General Recommendations

Spatial Organization and Cluster Arrangement

Management Issues:

1. The historic relationship between the Mill, barn, mill yard, and road is difficult to envision due to the presence of the parking lot, sidewalks and related elements.
2. An outdoor gathering space and interpretive experience is necessary for accommodating visitors while they wait to enter the Mill.

General Recommendation:

1. Remove the parking lot between the Mill and the barn and establish an interpretive space in the area where the historic road and mill yard were located.

Land Use

Management Issues:

1. Land use at some adjacent properties is not compatible with the historic character of the Mill site.
2. Land use at adjacent properties not owned by the National Park Service is subject to change.
3. Visitors come to the site to visit the historic resources, picnic, use the open grass area, walk dogs, walk, bike, and as part of a bicycle commuter route. The needs of all users and potential conflicts between users need to be taken into account.

General Recommendations:

1. Retain vegetative buffers to screen non-compatible adjacent land use.
2. Retain vegetative buffers to protect from potential visual impacts due to incompatible development.
3. Retain the facilities associated with the picnic and athletic activities and consider their use in planning for increased use at the historic core. Circulation issues are addressed in the Circulation section.

Topography/Drainage

Management Issues:

1. When Tilden Street was raised, the relationship between the Mill and the road was permanently altered. AS a result, a retaining wall was required along the north edge of the road between the Mill and the road. The prominence of the Mill is diminished due to this relationship.

2. The road and parking lot between the Mill and barn are at a higher elevation than the Mill, diminishing the prominence of the building and visitors' understanding of its historic relationship to the landscape.
3. The Mill is located at a low point on the site and floods frequently, with water entering from the surface at the east doors and windows and at the mill race.
4. Storm drainage from the surrounding area enters the Mill, contributing to moisture problems.
5. Storm drainage, flooding, and visitor activities have created erosion issues near the creek banks in some areas.

General Recommendations:

1. Consider altering the grades between the Mill, barn, and Tilden Street to strengthen the relationship between the Mill and the surrounding landscape.
2. Remove the parking lot between the Mill and the barn and establish an interpretive space in the area where the historic road and mill yard were located.
3. Consider providing water barriers at the doors and windows on the east side of the building to deter flood waters from entering.
4. Regrade the area above the Mill to divert storm water runoff from higher elevations and so that it does not reach the Mill. Where necessary, install drains to capture and divert stormwater from the building.
5. Plant low shrubs that are native to stream banks to help reduce erosion.

Vegetation

Management Issues:

1. Historically, the broad landscape surrounding the Mill included open fields and orchards. Today, much of this area is forested, resulting in an overall character of an enclosed valley.
2. Invasive plants are impacting desirable plants throughout the site.
3. Opportunistic vegetation growing along the creek banks is impacting historic views.

General Recommendations:

1. Establish defined edges for open/wooded areas and keep open areas clear through routine maintenance. Enlarge the open area located northwest of the barn by removing woody vegetation. Consider establishing a small representative orchard in the resulting clearing northwest of the barn.
2. Remove invasive plants listed on the park's invasive plant species list however, if non-native plants are in an area with historic resources, carefully consider if they are impacting significant

resources. Take heed that there may be exotic ornamentals that are historic in nature. If they are not impacting significant resources, they do not need to be removed.

3. Continue to recruit volunteers to remove invasive species. Continue to seek funding sources to enable large scale removal.
4. Identify key locations to re-establish views by altering vegetation along the creek. Replace large shrubs with native low growing shrubs and canopy trees to allow views.

Circulation

Management Issues:

1. The vehicular access at Tilden Street and parking lot between the Mill and barn diminish the historic character of the site.
2. There is a need for a drop-off area at the historic core of the site for ADA/universally accessible design.
3. Pedestrian access to the Mill site from other nearby parking areas needs to be improved and defined for visitors.
4. Vehicles traveling on Tilden Street move swiftly past the site and have limited sight distances. This results in a dangerous pedestrian crossing between the Historic Core and the Grove 1 area.
5. There are conflicts between pedestrians, bicycles, and vehicles in the historic core due to shared and crossing paths and drives.
6. Two parking lots near the Mill have the same name, Grove 2. This is confusing for visitors.
7. The pedestrian/bike crossing at Broad Branch Road needs to be more prominent to provide a safe route.
8. The sidewalk from the east Grove 2 parking lot is narrow and there is no barrier between it and Beach Drive, leading to concerns regarding safety.
9. Universally accessible routes are needed to provide access to the primary features at the site.

General Recommendations:

1. Remove the parking lot between the Mill and the barn. Replace the two universally accessible parking spaces in an arrangement that allows for the creation of a pedestrian gathering space between the barn and the Mill.
2. Add a drop-off area for buses near the barn.
3. Improve parking signage to indicate multiple parking areas that may be used by Peirce Mill visitors. Improve pedestrian links between all parking lots and the Mill site.
4. Work with DDOT to design and implement traffic calming measures along Tilden Street.
5. Realign the pedestrian, bike and vehicle routes near the historic core to minimize circulation conflicts.

6. Change the names of the Grove 2 parking lots (and the signs and park maps that refer to the parking lots) to distinguish between them.
7. Enlarge and improve the pedestrian/ bike crosswalk at Broad Branch Road.
8. Develop universally accessible parking and routes to the barn, outdoor gathering space, and bottom two levels of the Mill.

Buildings and Structures

Management Issues:

1. The park has determined that the existing comfort station must be removed. At least one universally-accessible restroom is needed within the historic core to serve mobility-challenged visitors, park employees and volunteers at Peirce Mill.
2. The main visitor restroom for the site is at the picnic shelter at Grove 1. This may create conflicts if the shelter is in use when a group is visiting the site.

General Recommendations:

1. Consider providing one universally accessible restroom in the barn for use by mobility-challenged visitors, park employees and volunteers.
2. Consider constructing a new, ADA accessible, comfort station in the approximate location of the existing comfort station.

Views

Management Issues:

1. Vegetation has obscured views between the Mill and the Creek. Of particular concern is the loss of historic views of the dam and the old dam site at the extant headgate.
2. Vegetation screens incompatible land use to the north and west of the site. Thinning or removal of the vegetation could open views to incompatible land use.
3. Grove 2 parking lot on the east side of the creek is directly across from the historic headgate, a key interpretive feature on the site. Views of the parking lot are not compatible with the historic character of the historic core.

General Recommendations:

1. Re-establish views between the Mill and the Creek and the historic dams within the Creek. Remove large shrubs and understory plants, replacing them with low native shrubs and canopy trees.
2. Maintain a vegetative buffer at site boundaries.
3. Plant native shrubs and native understory trees along the west side of the east Grove 2 parking lot to buffer views of it from the west side of the creek.

Constructed Water Features

Management Issue:

1. Historically significant constructed water features are an important part of the Peirce Mill landscape; however they are not actively maintained.

General Recommendation:

1. Continue to conduct routine inspections of the headgate, remnants of the old dam, and the dam near the Mill to ensure that they are in sound structural condition.

Small-Scale Features

Management Issue:

1. A variety of styles of site furniture, including signs, lights, benches, picnic tables, trash receptacles, and bollards, exist throughout the project area. The multiple types detract from the aesthetic and historic character of the landscape.

General Recommendation:

1. Develop a standard palette for site furniture at the Peirce Mill site, preferably using standards common to Rock Creek Park.

Chapter 8: Recommended Treatment Plan

Chapter 8: Recommended Treatment Plan

Historic Core Recommended Treatment

The recommended site design for the historic core of the Peirce Mill property focuses on providing a comprehensive visitor experience as part of an organized tour sequence for the property while preserving extant landscape features and incorporating them into an educational program. It is expected that field trips to the site will be incorporated into the Washington, D.C. area elementary school curriculum. Although the site will be programmed to serve a wide variety of users, the need to accommodate curriculum-based school groups has had a considerable influence in the site planning process. Tours of the Mill building will include up to thirty visitors at a time, fifteen on the first floor and fifteen on the lower floor. The barn also accommodates a group of fifteen people. Since school groups generally include about eighty people, there is a need to extend the large group program into the site.

The recommended treatment design for the historic core enhances the ability of the site to represent the historic activities and creates a pedestrian oriented experience for visitors. Appendix A provides an overview of the treatment alternatives that were developed and evaluated as part of the project process. The recommended treatment plan represents a combination and refinement of features presented in alternatives B, D, and E (see Appendix A).

A pedestrian gathering space, or mill yard, is established between the Mill and barn emphasizing a strong relationship between the Mill, mill yard, and the extant route of the historic road. Vehicular traffic and parking is removed from the area between the Mill and barn and replaced with a pedestrian gathering space with routes that are accessible for visitors with mobility impairments to the main and lower levels of the Mill, barn, new comfort station, parking, drop-off and all of the waysides. The grade at the mill yard is lowered to relate more directly to the Mill, as it would have before Tilden Street was raised. The elevation of the mill yard is approximately three feet lower than Tilden Street. An accessible route from the mill yard to Tilden slopes at 4-1/2% grade. In addition, steps lead down from Tilden Street to the mill yard following an alignment that reflects the general route of the historic road. An ADA accessible replacement comfort station, measuring approximately fourteen feet by sixteen feet, is located to the north of the barn near the visitor drop-off and accessible parking area.

Bus Drop-off and Accessibility

A vehicular drop-off located immediately west of the barn meets design criteria for a 45’x9’ intercity bus to accommodate tour groups. Alternately, the drop-off has capacity for two 39’ x 8’ school busses. The following design standards for these vehicles were utilized:
School bus:
Length = 39’ (allow 45’ drop-off length)
Width = 8’

R = 43'-6" (outside radius)
R1 = 26'-0" (inside radius)
T = 30'-0" (tangent minimum)
D = 19'-5" (width of aisle)
C = 1'-0" (gutter)

Intercity bus:
Length = 45' (allow 51' drop-off length)
Width = 9'
R = 55'-0
R1 = 33'-0
T = 30'-0"
D = 22'-6"
C = 1'-0"

The turning radius, tangent, and aisle dimensions for the larger vehicle were used to lay out the drop-off area. The slope and cross-slope of the drop-off area do not exceed two percent. An eight foot wide sidewalk parallels the road and barn at the drop-off.

Two accessible parking spaces are provided on the northwest side of the barn at the northern end of the drop-off. The accessible routes have a minimum of five foot width, and do not exceed 4-1/2% running slope and 2% cross slope. Accessible routes lead from the accessible parking spaces to the barn, comfort station, and all waysides and points of interest, with the exception of the Springhouse located to the west of the parking area.

The Springhouse is located in an island on an approximately 15% slope on Tilden Street. No reasonable solution for providing a safe accessible route to this site without heavily impacting the historic resources, and requiring re-grading of Tilden Street, has been identified.

Visitor Experience

All participants in organized tours begin their experience of the site at the barn. Visitors arriving in private passenger vehicles may park in the Grove 1 parking lot, or in the accessible parking spaces adjacent to the barn. Overflow parking is provided at the Grove 2 East and Grove 2 North parking lots. From the Grove 1 parking lot, visitors will walk along a paved path to a crosswalk at Tilden Street. Visitors who wish to participate in an organized tour will proceed to the barn. Since the buildings will be open only during limited hours, visitors may wish to explore the site independently during off-hours. Waysides are located at key positions on the site to provide interpretive information about the historic resources.

Large groups, or any passenger wishing to be dropped off, will utilize the drop off area on the northwest side of the barn. A typical visitor sequence at the site will include experiencing several landscape resources. Site orientation information is provided at the wayside at the barn as well as the wayside at the mill yard. These waysides will inform

visitors about the historic landscape features that they may see. From the barn, visitors will walk around the barn to the west and north to view the restored orchard. A wayside and interpretive node provide information about historic agricultural activities. An accessible trail provides two options for further exploring the site. Visitors may choose to continue to the northeast and learn about the millrace and headgate while enjoying a walk through the site. Other visitors may choose to curve to the south and visit the mill yard. The mill yard provides a gathering space for a large group and may serve as a staging location for tours of the mill. The mill yard wayside will also include information about the historic road and activities that would have occurred in the mill yard.

The ten foot wide pedestrian trail extends to the north from the mill yard following the route of the historic road that was used to transport materials to and from the mill in the earliest period of significance (see Figures 8-1 and 8-2 for the pedestrian trail location). In later years the road was used for recreational purposes. Following the path to the north, visitors may view the restored millrace to the east. Alternately, they may turn right to walk along an accessible route to the lower level of the Mill. An overlook is positioned to provide visitors with a vantage point for viewing the operating mill wheel. An interpretive wayside explains how the millwheel and millrace operate.

The pedestrian route joins the multi-use trail north of the bridge over the millrace. In this location, the pavement is thirteen feet wide, to accommodate an eight-foot multi-use trail alongside a five-foot walking path. Painted symbols indicate walk and bike lanes to help reduce circulation conflicts. The bridge over the tailrace is raised to an elevation of 57.5 feet (based on existing conditions survey elevations) and is thirteen feet wide to accommodate both bikes and pedestrians. The bridge design accommodates the need for park maintenance to be able to move the bridge floor to allow the raceway to be cleaned.

The multi-use trail is a paved route near the western bank of the creek. Bike parking is accommodated with a bike rack near the extant headgate. The routes of the historic millraces are indicated on the ground with a textured surface made of crushed stone with a flush stone edge on either side. Information about the historic millraces and headgate is provided at a wayside on the northern end of the historic core near the location where the 1930s millrace turned to the east and met the extant headgate.

Springhouse Area

Pedestrian access is provided to the Springhouse Area via a sidewalk on the north side of Tilden Street and a crosswalk across Tilden near the Springhouse. Traffic calming measures applied along Tilden to the east of the Springhouse will help to improve the safety at this crossing location.

Historic Road and Headrace Area

In the recommended alternative, the route of the historic road is utilized for a pedestrian path between the North Grove 2 parking lot and the historic core. A stone pattern located on the ground indicates the routes of two historic headraces. One terminates at the creek near the North Grove 2 parking lot and the other ends at the

headgate near the remnants of the old dam. The headrace route is close to the historic road route, which is used for a pedestrian trail providing opportunities for interpreting the historic movement of water through the site.

A multi-use trail traverses the landscape from the North Grove 2 parking lot to the historic core along the western edge of Rock Creek continuing past the Mill and under Tilden Street. Bike racks are provided at the south end of the North Grove 2 parking lot and on the east side of the bike path near the Dam. The main pedestrian and multi-use trails do not cross in this scenario. However, people will be interested in the creek, headgate, dam, and fish ladder, and are likely to wander toward the creek edge. This may result in conflicts between pedestrians and bikers.

Wooded Buffer Area

The Wooded Buffer Area includes steep slopes covered with forest vegetation. Although the woods do not reflect the historic character of the open fields present during the periods of significance, they do help to buffer views to adjacent properties that are not compatible with the historic character of the site. Implementation of a monitoring program to keep track of storm drainage that enters the property will ensure that erosion problems do not increase. Continued evaluation of vegetation and removal invasive species will improve the conditions of the native plants at the site.

Rock Creek Area

A monitoring program is implemented to track changes to the creek and determine whether actions need to be taken to protect the historic and natural resources along its banks. The signs warning visitors to stay out of the creek are maintained. Information about the creek is incorporated into the site interpretive program. Native stream bank vegetation is added to improve areas of erosion along the creek banks. Views between the Mill and the Creek are re-established by removing large shrubs and understory plants and replacing them with small shrubs and canopy trees. Native shrubs and ornamental trees are planted along the west side of the east Grove 2 parking lot to buffer views from the west side of the creek.

North Grove 2 Area

The name of this area is changed to North Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. A multi-use crosswalk at Broad Branch Road is designed with input from DDOT and installed. A pedestrian sidewalk from Broad Branch Road along the east side of the entrance drive to the parking lot is installed. A line is painted parallel to the western edge of the parking lot, eight feet from the edge, with bike lane symbols to provide a designated lane for bikes. An information sign and bike rack are provided at the south end of the North Grove 2 parking lot.

The picnic area is enhanced by planting low native shrubs near the parking lot to screen views of the cars and plant canopy trees for shade. Selected views to Rock Creek are opened and picnic tables are provided in this area. The social trail between the

parking area and the creek is removed. Interpretive waysides with information about the historic headrace and former location of the headgate are provided.

East Grove 2 Area

The name of this area is changed to East Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. The parking lot and picnic area are maintained at this location. The historic stone fireplace and fire pit are stabilized and relocated to protect them from being further damaged by erosion. Native shrubs and canopy trees are planted along the western side of the parking lot to screen views of the cars from the west side of the creek.

Grove 1 Area

The picnic shelter, restrooms and open grass area/meadow at this location are retained. The parking lot is expanded by adding seven spaces to replace those removed from the historic core. All existing parking spaces are retained, including the two ADA accessible parking spaces. A paved path from the parking lot to a pedestrian crosswalk at Tilden Street is provided. The bike path and the unpaved path at the south end of this area are maintained.

Bus Drop-off and Traffic Calming at Tilden Street

Curb cuts are provided on Tilden Street to accommodate a bus drop-off loop road. Signs are provided on Tilden Street directing eastbound bus drivers to turn south onto Linnean Avenue NW and follow the loop drive past the Grove 1 area to its intersection with Tilden Street. A sign is provided directing bus drivers to turn left and use the drop-off lane. In coordination with DDOT, a bus pull-off parking lane is established along Linnean Avenue near the Grove 1 area and two pedestrian crosswalks are provided at Tilden Street with traffic calming measures along Tilden toward the bridge and up the hill on the west.

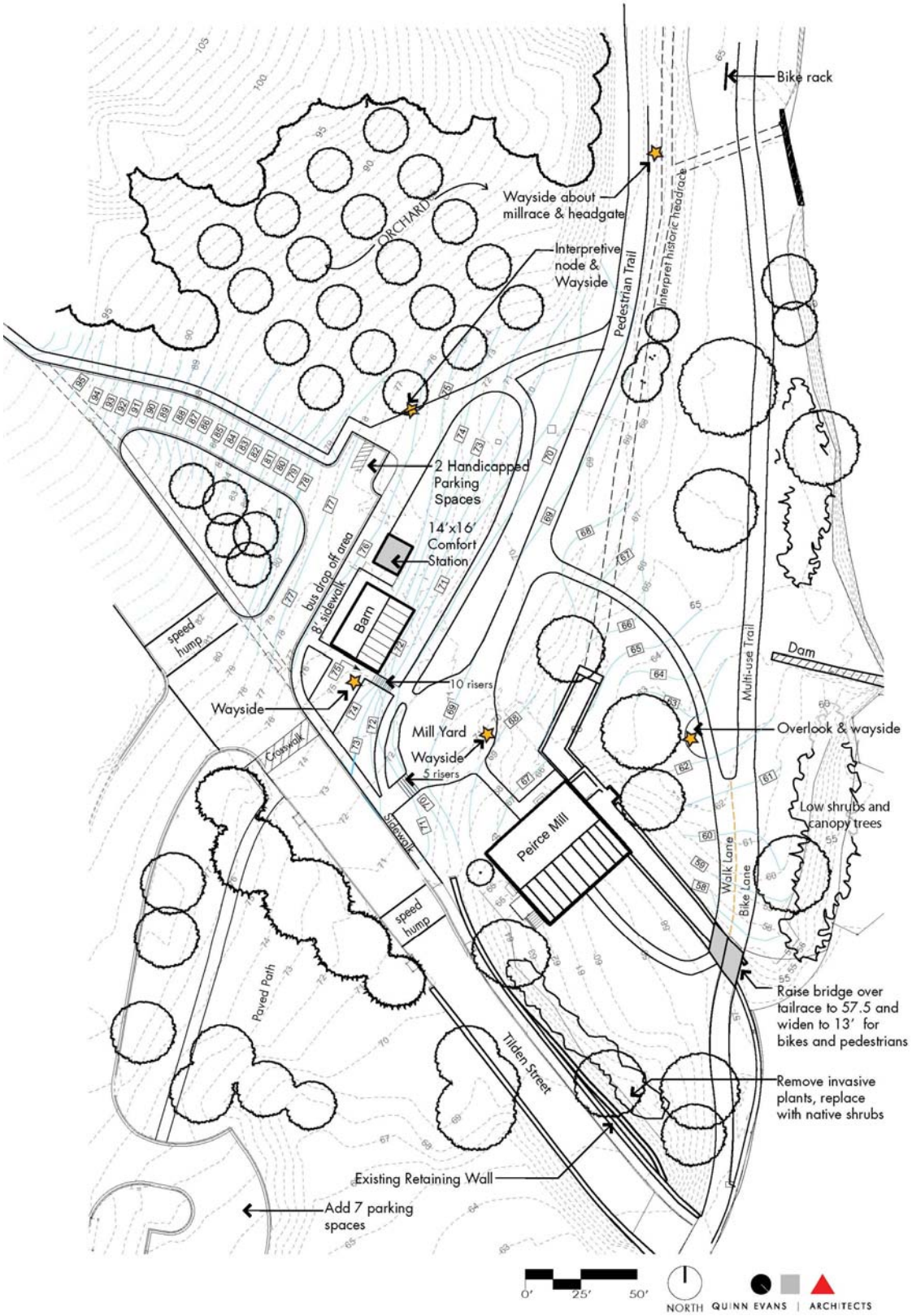


Figure 8- 1: Historic Core Recommended Treatment Plan.

Next Page: Figure 8- 2: Project Area Site Design Recommended Alternative.

Insert 11 x 17 Project Area Site Design Recommended Alternative

Chapter 9: Project Phasing

Chapter 9: Project Phasing

Project A: Implement Traffic Calming Measures on Tilden

- Work with DDOT to get speed humps or other traffic calming measures installed along Tilden Street.
- Paint a crosswalk on Tilden for pedestrian circulation.
- Construct a paved pedestrian trail from the crosswalk to the Grove 1 area.

Project B: Rehabilitate Historic Core

- Remove the existing driveway and parking lot located between the Mill and the barn.
- Re-grade the area and install the mill yard, pedestrian trails, and steps.
- Construct the bus drop-off loop and handicap parking as well as the associated sidewalks.
- Enlarge the Grove 1 parking lot adding seven parking spaces.

Project C: Implement Circulation Routes northeast of Mill

- Construct the pedestrian trail between the mill yard and the North Grove 2 parking lot. Although most of the trail is paved, change the surface to reflect the surface material used for the mill yard.
- Construct pedestrian trail from mill yard area to lower level of Peirce Mill.
- Pave multi-use trail along west side of creek and install bike rack.
- Add bike rack.
- Raise and widen bridge over tailrace.

Project D: Implement pavement along millrace alignment

- Conduct non-intrusive archeological investigations to verify location of millrace and provide recommendations for preserving the associated resources.
- If the archeological recommendations concur, install filter fabric and flush stone edges with crushed stone/gravel between edges along the millrace alignment.

Project E: Construct Comfort Station

- Remove the existing comfort station.
- Construct a 14’ x 16’ comfort station with two universally accessible unisex stalls.
- Construct sidewalk to the comfort station.

Project F: Design and Implement Waysides

- Prepare a Wayside Plan for the Peirce Mill Complex.
- Design the waysides.
- Install the waysides.

Project G: Restore Historic Orchard

- Determine fruit tree species appropriate for the site. Consult with horticulturalist or specialist familiar with historic fruit trees to determine a variety that will do well in the site environment.
- Clear woody vegetation.
- Prepare soil and plant the trees.
- Maintain the orchard (consider utilizing volunteers)

Project H: Rehabilitate Vegetation South of Mill

- Remove invasive plants and replace with native shrubs.

Project I: Rehabilitate Vegetation along Creek

- Remove invasive plant and plant native stream bank vegetation to improve areas of erosion along the creek banks.
- Re-establish views between the Mill and the creek by selectively removing large shrubs, understory plants, and removing all invasive vegetation. Plant small shrubs and canopy trees in masses to create masses and voids and direct views.
- Plant native shrubs and ornamental trees along the west side of the Grove 2 parking lot to buffer views from the west side of the creek.

Project J: Improve North Grove 2 Area

- Install multi-use crosswalk at Broad Branch Road.
- Install pedestrian sidewalk from Broad Branch Road along the east side of the entrance drive to the parking lot.
- Paint a bike lane.
- Install a bike rack at the south end of the parking lot.
- Remove social trail in picnic area. Add four inches of topsoil and seed to re-establish rough lawn.
- Plant low native shrubs and canopy trees near the parking lot.
- Install picnic tables.
- Open selected views to the creek by removing invasive vegetation and installing low native shrubs and canopy trees.

Project K: Stabilize Stone Features

- Have an experienced mason assess the stone fireplace and fire pit and provide recommendations for stabilizing the masonry.
- Clear vegetation away from the features.
- Stabilize the creek banks.

Project L: Improve Access to Springhouse

- Construct a sidewalk along the north side of Tilden Street from the bus drop-off loop to the Springhouse area.
- Paint crosswalk lines on Tilden Street.

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Appendix A: Treatment Alternatives

Appendix A: Treatment Alternatives

Treatment Design Alternatives

In January 2009, three alternative landscape treatments (Alternatives A, B, and C) were submitted to the National Park Service for the project area and the historic core. Alternatives A, B, and C are presented in this chapter. Alternative B was determined to be the recommended approach for the overall project area.

Upon review of the three alternatives for the historic core, the need for further consideration of development of a universally accessible bus drop-off for visitors was recognized. A series of sketches illustrating other possible bus drop-off solutions were considered, these are described herein as Alternatives D, E, F, G, and H. Through contemplation of Alternatives A through H the program for the historic core landscape was gradually refined. The need for a universally accessible drop-off to accommodate one tour bus or two school busses on the north side of Tilden Street was established. In addition, the need for an accessible restroom facility near the barn was confirmed. Also, a better understanding of the ways the site may be used by visitors was developed. The recommended treatment plans for the overall project area and the historic core are presented in Chapter 8.

Alternatives for the treatment of historic landscape features within the Peirce Mill Complex are addressed herein at two scales. At a broad scale, conceptual design alternatives are provided for the project area. At a more detailed scale, conceptual design alternatives are provided for the historic core of the Peirce Mill Complex. The boundaries of the project area and the historic core are provided in Chapter 1. Features shown on the plans are conceptual, meaning that they provide a general location and layout.

Alternative A – Rehabilitation with an emphasis on Minimizing Landscape Change while addressing the project goals.

Historic Core

This design focuses on providing a sequence of outdoor spaces to be used as an integral part of the interpretive experience at the site, with minimal changes to the existing topography (see Figure: Historic Core Site Design Alternative A). Vehicular traffic is removed from the area between the Mill and barn and replaced with a pedestrian gathering space to be used for visitor orientation. This area includes an interpretive sign with basic visitor information, a map of the site, and an interpretive overview. Universally-accessible pedestrian routes lead to the barn, parking, and main and lower levels of the Mill.

A lower gathering space is provided adjacent to the front of the Mill for tour staging (see Figure: Historic Core Site Design Alternative A). There is a six-foot change in elevation between the upper and lower gathering spaces. An accessible sidewalk traverses the grade change following the routes of the historic road (current parking lot) to the north, then angles down the slope at a five percent grade south to the Mill entrance. An interpretive overlook along the route provides views of the Mill and mill race. A set of twelve steps provides a more direct route between the two gathering spaces. A retaining wall along the southeast side of the upper gathering space extends to the north as it tapers to grade.

Vehicular access to the two universally-accessible parking spaces is provided from Broad Branch Road through the north Grove 2 parking area and along the paved multi-use trail. Woody vegetation in the area north of the barn is cleared and replaced with a maintained meadow. The once extensive agricultural fields that surrounded the Mill are interpreted.

Springhouse Area

Pedestrian access is provided to the springhouse Area via a sidewalk on the north side of Tilden Street and a crosswalk across Tilden near the springhouse. Traffic-calming measures are applied along Tilden to the east of the springhouse to improve the safety at this crossing.

Historic Road and Headrace Area

In Alternative A, the route of the historic road is utilized for a multi-use trail and vehicular access route to the universally-accessible parking lot at the north end of the historic core. This vehicular route provides a continuation of the historic use, while eliminating the vehicular access and parking that is currently located between the barn and Mill. The proposed accessible parking area is less than forty feet north of the current handicap parking spaces. North of the accessible parking area, the multi-use trail curves to the southeast, meeting the current trail to cross the tailrace and pass under Tilden Street. A pedestrian trail traverses the landscape from the North Grove 2 parking lot to the historic core along the western edge of Rock Creek. The pedestrian and multi-use trails cross each other near the accessible parking area.

The locations of the historic headraces are indicated on the ground with a flush gravel surface edged by stone. The locations of the historic race routes will be determined using non-invasive archeological techniques. Figure 7-3: Project Area Site Design Alternative A illustrates the probable routes of the races. Interpretive waysides are provided at each of the start points.

Wooded Buffer Area

The Wooded Buffer Area includes steep slopes covered with forest vegetation. Although the woods do not reflect the historic character of the open fields present during the periods of significance, they do help to buffer views to adjacent properties that are not compatible with the historic character of the site. Implementation of a monitoring

program to keep track of storm drainage that enters the property will ensure that erosion problems do not increase. Continued evaluation of vegetation and removal invasive species will improve the conditions of the native plants at the site.

Rock Creek Area

A monitoring program is implemented to track changes to the creek and determine whether actions need to be taken to protect the historic and natural resources along its banks. The signs warning visitors to stay out of the creek are maintained. Information about the creek is incorporated into the site interpretive program. Native stream bank vegetation is added to improve areas of erosion along the creek banks. Views between the Mill and the Creek are re-established by removing large shrubs and understory plants and replacing them with small shrubs and canopy trees. Native shrubs and ornamental trees are planted along the west side of the east Grove 2 parking lot to buffer views from the west side of the creek.

North Grove 2 Area

The name of this area is changed to North Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. A multi-use crosswalk at Broad Branch Road is designed with input from DDOT and installed. The picnic area is enhanced by planting low native shrubs near the parking lot to screen views of the cars and plant canopy trees for shade. Selected views to Rock Creek are opened and picnic tables are provided. The parking lot is widened add a bike lane to eliminate bike traffic through the picnic area. The path near the creek is realigned as a pedestrian route, avoiding the picnic area. Interpretive waysides are provided with information about the historic headrace and former location of the headgate. An informational sign is provided at the south end of the parking lot.

East Grove 2 Area

The name of this area is changed to East Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. The parking lot and picnic area are maintained at this location. The historic stone fireplace and fire pit are stabilized and relocated to protect them from being further damaged by erosion. Native shrubs and canopy trees are planted along the western side of the parking lot to screen views of the cars from the west side of the creek.

Grove 1 Area

The picnic shelter, restrooms and open grass area/meadow at this location are retained. The parking lot is expanded by adding seven spaces to replace those removed from the historic core. A paved path from the parking lot to a pedestrian crosswalk at Tilden Street is provided. The multi-use trail and the unpaved path at the south end of this area are maintained.

Pedestrian Drop-off and Traffic Calming at Tilden Street

Curb cuts are provided on Tilden Street to accommodate a bus drop-off loop road. Signs are provided on Tilden Street directing eastbound bus drivers to turn south onto Linnean Avenue NW and follow the loop drive past the Grove 1 area to its intersection with Tilden Street. A sign is provided directing bus drivers to turn left and use the drop-off lane. In coordination with DDOT, a bus pull-off parking lane is established along Linnean Avenue near the Grove 1 area and two pedestrian crosswalks are provided at Tilden Street with traffic calming measures along Tilden toward the bridge and up the hill on the west.

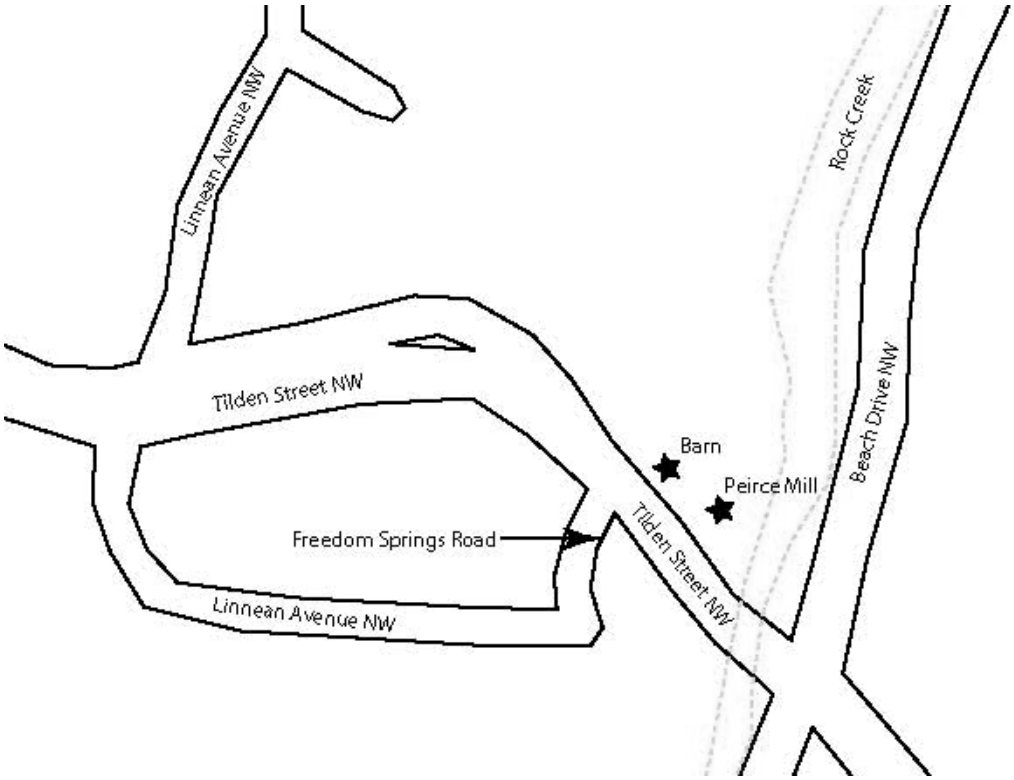

Figure 7- 1: Streets used for bus circulation.

Figure 7- 2: Historic Core Site Design Alternative A, Conceptual Grading.

Next Page: **Figure 7- 3: Project Area Site Design Alternative A.**

Insert 11 x 17 Project Area Site Design Alternative A

Back of Project Area Site Design Alternative A

Alternative B– Rehabilitation with an emphasis on re-establishing a strong relationship between the Mill and the Mill Yard Area.

Historic Core

This design focuses on establishing a pedestrian gathering space, or Mill Yard Area, between the Mill and barn and emphasizing a strong relationship between the Mill and Mill Yard Area. Vehicular traffic is removed from the area between the Mill and barn and replaced with a large pedestrian gathering space with universally accessible routes to the main and lower levels of the Mill and the lower level of the barn. The grade at the Mill Yard Area is lowered and retaining walls are constructed on its southwest side (parallel to Tilden Street) and northwest side (near the barn). This strengthens the relationship between the Mill and the adjacent landscape—which once served as the Mill Yard.

In this scenario, visitors to the site are channeled to the existing barn entrance. Once inside the barn, orientation information is available. After going to the barn, visitors are directed to the Mill Yard. Two universally accessible parking spaces are provided on the northwest side of the barn. A driveway from Tilden Street provides access to the parking area. Access to the barn is provided with a level sidewalk to the front (southeast corner) of the building. A lift in the barn provides access to the lower level of the Mill yard at the northeast corner of the building. In the area north and northwest of the barn, clear woody vegetation and establish a representative orchard. Interpret the once extensive agricultural fields and orchards that surrounded the Mill.

Springhouse Area

Pedestrian access is provided to the springhouse area via a sidewalk on the north side of Tilden Street and a crosswalk across Tilden near the springhouse. Traffic calming measures applied along Tilden to the east of the springhouse will help to improve the safety at this crossing location.

Historic Road and Headrace Area

In Alternative B, the route of the historic road is utilized for a pedestrian path between the North Grove 2 parking lot and the historic core. A stone pattern located on the ground indicates the routes of two historic headraces. One headrace terminates at the creek near the North Grove 2 parking lot and the other ends at the headgate near the remnants of the old dam. The headrace route is close to the historic road route, which is used for a pedestrian trail. This provides opportunities for interpreting the historic movement of water through the site.

A multi-use trail traverses the landscape from the North Grove 2 parking lot to the historic core along the western edge of Rock Creek continuing past the Mill and under Tilden Street. The pedestrian and multi-use trails do not cross in this scenario. However, people will be interested in the creek, headgate, dam, and fish ladder, and are likely to

wander toward the creek edge. This may result in conflicts between pedestrians and bikers, but will still be a reduction in conflicts compared to the current situation.

Wooded Buffer Area

The Wooded Buffer Area includes steep slopes covered with forest vegetation. Although the woods do not reflect the historic character of the open fields present during the periods of significance, they do help to buffer views to adjacent properties that are not compatible with the historic character of the site. Implementation of a monitoring program to keep track of storm drainage that enters the property will ensure that erosion problems do not increase. Continued evaluation of vegetation and removal invasive species will improve the conditions of the native plants at the site.

Rock Creek Area

A monitoring program is implemented to track changes to the creek and determine whether actions need to be taken to protect the historic and natural resources along its banks. The signs warning visitors to stay out of the creek are maintained. Information about the creek is incorporated into the site interpretive program. Native stream bank vegetation is added to improve areas of erosion along the creek banks. Views between the Mill and the Creek are re-established by removing large shrubs and understory plants and replacing them with small shrubs and canopy trees. Native shrubs and ornamental trees are planted along the west side of the east Grove 2 parking lot to buffer views from the west side of the creek.

North Grove 2 Area

A small, universally accessible comfort station is constructed at the south end of the North Grove 2 parking lot to replace the comfort station near the barn. An informational sign is provided near the comfort station. The name of this area is changed to Peirce Mill Parking Lot and Picnic Area and visitors are directed to use this as a primary access point for the Mill.

A multi-use crosswalk at Broad Branch Road is designed with input from DDOT and installed. The entrance road is widened to the parking lot and a bike lane is added on the eastern side of the driveway. The bike lane is linked to the multi-use trail at the northeastern corner of the parking lot. The path near the creek is re-aligned, avoiding the picnic area, and paved for a multi-use trail.

The picnic area is enhanced by planting low native shrubs near the parking lot to screen views of the cars and plant canopy trees for shade. Selected views to Rock Creek are opened and picnic tables are provided in this area. Interpretive waysides with information about the historic headrace and former location of the headgate are provided.

East Grove 2 Area

The name of this area is changed to East Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. The parking lot and picnic area are maintained at this location. The historic stone fireplace and fire pit are stabilized and relocated to protect them from being further damaged by erosion. Native shrubs and canopy trees are planted along the western side of the parking lot to screen views of the cars from the west side of the creek.

Grove 1 Area

The picnic shelter, restrooms and open grass area/meadow at this location are retained. The parking lot is expanded by adding seven spaces to replace those removed from the historic core. A paved path from the parking lot to a pedestrian crosswalk at Tilden Street is provided. The bike path and the unpaved path at the south end of this area are maintained.

Pedestrian Drop-off and Traffic Calming at Tilden Street

Curb cuts are provided on Tilden Street to accommodate a bus drop-off loop road. Signs are provided on Tilden Street directing eastbound bus drivers to turn south onto Linnean Avenue NW and follow the loop drive past the Grove 1 area to its intersection with Tilden Street. A sign is provided directing bus drivers to turn left and use the drop-off lane. In coordination with DDOT, a bus pull-off parking lane is established along Linnean Avenue near the Grove 1 area and two pedestrian crosswalks are provided at Tilden Street with traffic calming measures along Tilden toward the bridge and up the hill on the west.

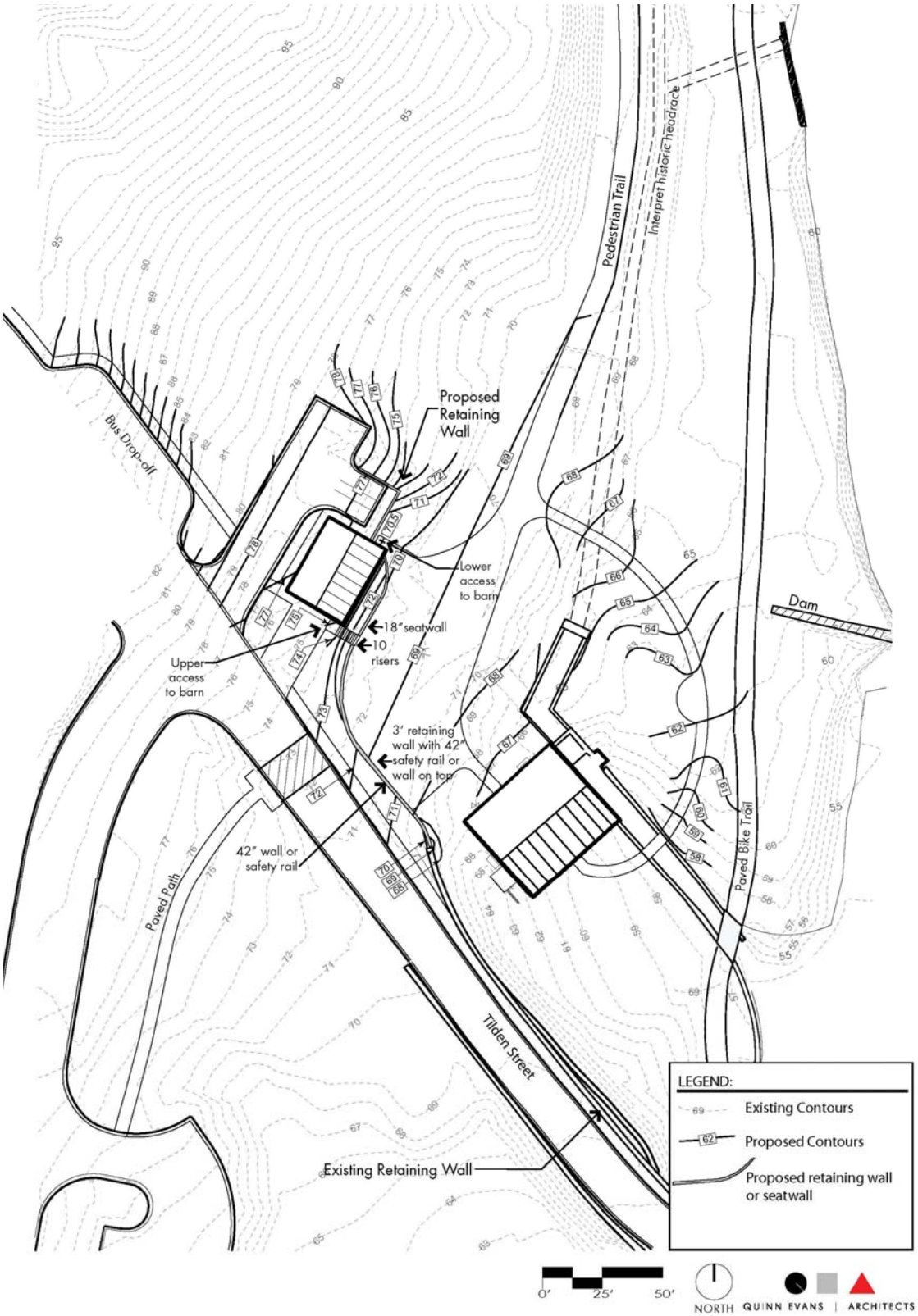

Figure 7- 4: Historic Core Site Design Alternative B, Conceptual Grading.

Next Page **Figure 7- 5: Project Area Site Design Alternative B.**

Insert 11 x 17 Project Area Site Design Alternative B

Back of Project Area Site Design Alternative B

Alternative C—Rehabilitation with an emphasis on re-establishing a strong relationship between the Mill and the Mill Yard Area with parallel parking on Tilden Street.

Historic Core

This design focuses on establishing a pedestrian gathering space, or Mill Yard Area, between the Mill and barn and emphasizing a strong relationship between the Mill and Mill Yard Area. Vehicular traffic is removed from the area between the Mill and barn and replaced with a large pedestrian gathering space with universally accessible routes to the main and lower levels of the Mill and the lower level of the barn. The grade at the Mill Yard Area is lowered and retaining walls are constructed on its southwest side (parallel to Tilden Street) and northwest side (near the barn). This strengthens the relationship between the Mill and the adjacent landscape—which once served as the Mill Yard.

In this scenario, visitors to the site are channeled to the existing barn entrance. Once inside the barn, orientation information is available. After going to the barn, visitors are directed to the Mill Yard. Two universally accessible parking spaces are provided on Tilden Street, along with one additional parallel parking space. Access to the barn is provided with a level sidewalk to the front (southeast corner) of the building. A lift in the barn provides access to the lower level of the Mill yard at the northeast corner of the building. In the area north and northwest of the barn, woody vegetation is cleared and a representative orchard is established. The once extensive agricultural fields and orchards that surrounded the Mill are interpreted.

Springhouse Area

Pedestrian access is provided to the Springhouse Area via a sidewalk on the north side of Tilden Street and a crosswalk across Tilden near the Springhouse. Traffic calming measures applied along Tilden to the east of the Springhouse will help to improve the safety at this crossing location.

Historic Road and Headrace Area

In Alternative C, the historic road is utilized for a multi-use trail from the North Grove 2 parking lot to a southern location roughly west of the headgate and old dam remnants. At this point, the multi-use trail curves to the southeast then continues to the south near the west bank of the creek. A pedestrian trail traverses the landscape from the North Grove 2 parking lot to the headgate near the old dam along the western edge of Rock Creek. At this point, a proposed bridge provides pedestrian access across the creek to the east at the East Grove 2 parking lot. Alternately, the pedestrian trail bends to the west and parallels the historic headrace route to the historic core. The pedestrian and multi-use trails intersect at the point where each trail bends.

A stone pattern located on the ground indicates the routes of two historic headraces. One terminates at the creek near the North Grove 2 parking lot and the other

ends at the headgate near the remnants of the old dam. Interpretive waysides are provided at each of the termination points.

Wooded Buffer Area

The Wooded Buffer Area includes steep slopes covered with forest vegetation. Although the woods do not reflect the historic character of the open fields present during the periods of significance, they do help to buffer views to adjacent properties that are not compatible with the historic character of the site. Implementation of a monitoring program to keep track of storm drainage that enters the property will ensure that erosion problems do not increase. Continued evaluation of vegetation and removal invasive species will improve the conditions of the native plants at the site.

Rock Creek Area

A monitoring program is implemented to track changes to the creek and determine whether actions need to be taken to protect the historic and natural resources along its banks. The signs warning visitors to stay out of the creek are maintained. Information about the creek is incorporated into the site interpretive program. Native stream bank vegetation is added to improve areas of erosion along the creek banks. Views between the Mill and the Creek are re-established by removing large shrubs and understory plants and replacing them with small shrubs and canopy trees. Native shrubs and ornamental trees are planted along the west side of the east Grove 2 parking lot to buffer views from the west side of the creek.

North Grove 2 Area

The name of this area is changed to North Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. A multi-use crosswalk at Broad Branch Road is designed with input from DDOT and installed. A pedestrian sidewalk from Broad Branch Road along the east side of the entrance drive to the parking lot is installed. A line is painted parallel to the western edge of the parking lot, eight feet from the edge, with bike lane symbols to provide a designated lane for bikes. An information sign and bike rack are provided at the south end of the North Grove 2 parking lot.

The picnic area is enhanced by planting low native shrubs near the parking lot to screen views of the cars and plant canopy trees for shade. Selected views to Rock Creek are opened and picnic tables are provided in this area. The social trail between the parking area and the creek is realigned, avoiding the picnic area, and paved. Interpretive waysides with information about the historic headrace and former location of the headgate are provided.

East Grove 2 Area

The name of this area is changed to East Grove 2 parking lot and picnic area to alleviate confusion caused by having two Grove 2 areas. The parking lot and picnic area are maintained at this location. The historic stone fireplace and fire pit are stabilized and relocated to protect them from being further damaged by erosion. Native shrubs and canopy trees are planted along the western side of the parking lot to screen views of the

cars from the west side of the creek. A pedestrian bridge is constructed over the creek to the north of the remnants of the old dam.

Grove 1 Area

The picnic shelter, restrooms and open grass area/meadow at this location are retained. The parking lot is expanded by adding seven spaces to replace those removed from the historic core. A paved path from the parking lot to a pedestrian crosswalk at Tilden Street is provided. The bike path and the unpaved path at the south end of this area are maintained.

Pedestrian Drop-off and Traffic Calming at Tilden Street

Curb cuts are provided on Tilden Street to accommodate a bus drop-off loop road. Signs are provided on Tilden Street directing eastbound bus drivers to turn south onto Linnean Avenue NW and follow the loop drive past the Grove 1 area to its intersection with Tilden Street. A sign is provided directing bus drivers to turn left and use the drop-off lane. In coordination with DDOT, a bus pull-off parking lane is established along Linnean Avenue near the Grove 1 area and two pedestrian crosswalks are provided at Tilden Street with traffic calming measures along Tilden toward the bridge and up the hill on the west.

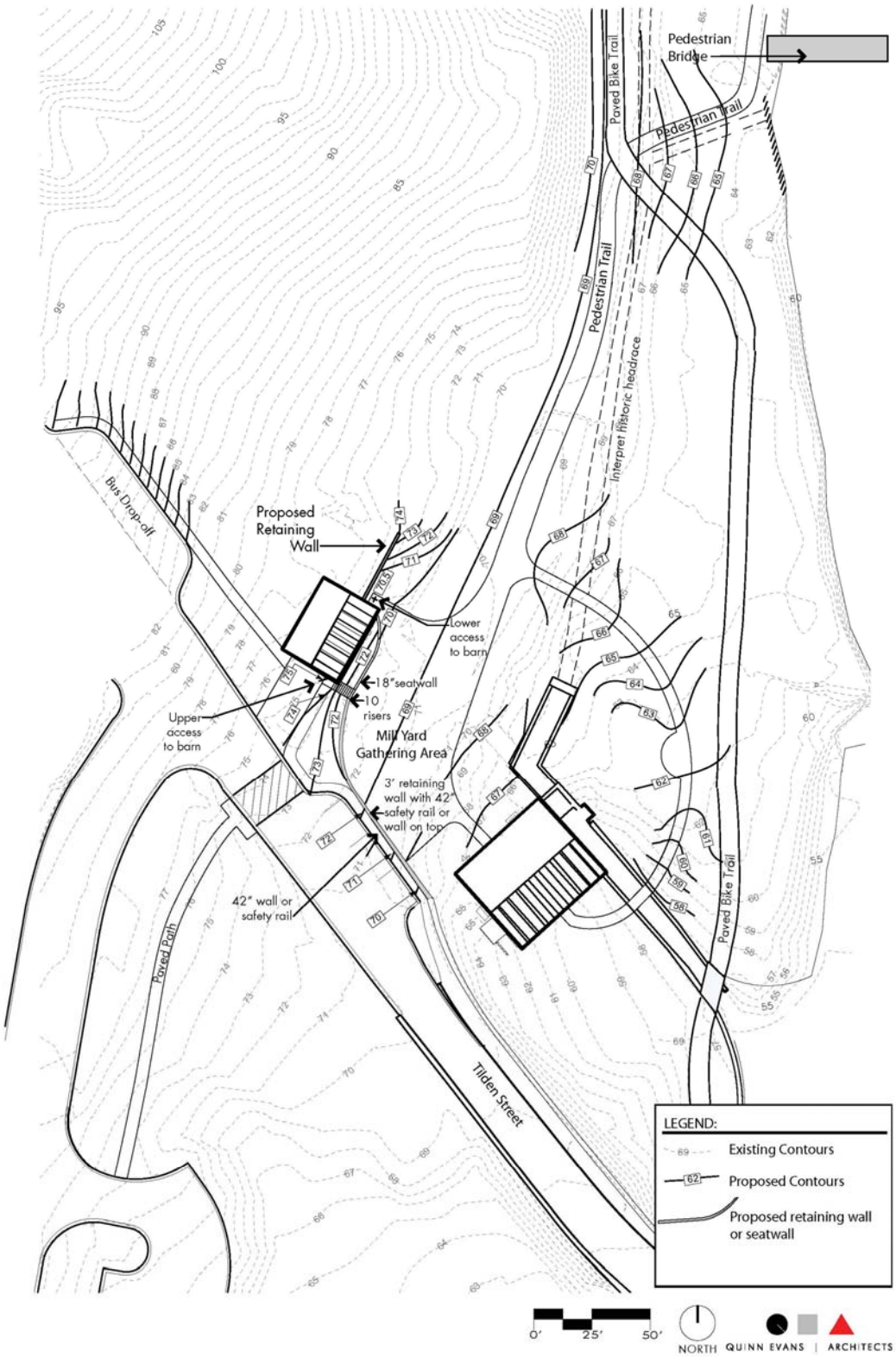

Figure 7- 6: Historic Core Site Design Alternative C, Conceptual Grading.

Next page: **Figure 7- 7: Project Area Site Design Alternative C.**

Insert 11 x 17 Project Area Site Design Alternative C

Back of Project Area Site Design Alternative C

Alternative D—Parallel Bus Drop-off at Tilden Street

Historic Core

Alternative D is illustrated in Figure 7-8. This design is similar to Alternative B with a few alterations to improve access for visitors with mobility impairments while limiting impacts to the historic landscape. A pedestrian route not exceeding 4-1/2 percent slope provides a link from the bus drop-off to the pedestrian trail at the level of the mill yard. This scenario was rejected because the bus drop-off area would need to be at the same grade as Tilden Street, approximately fourteen percent, and would limit the type of vehicle that could drop-off visitors with mobility impairments. In addition, this layout would require visitors parked in the handicap parking spaces to take a circuitous route to reach the mill yard and mill.

Figure 7- 8: Historic Core Site Design Alternative D, Conceptual Grading.

Alternative E—School bus drop-off Parallel to Barn.

Historic Core

In this alternative, illustrated in Figure 7-9, the bus drop-off area is designed to accommodate one school bus with room for a passenger vehicle to pass the bus. A loop road takes advantage of the existing topography to accommodate passenger drop-off. The drop-off area is adjacent to the west side of the barn and connected with paved walkways to the barn entrance and the mill yard area. The walkways do not exceed 4-1/2 percent slope. Two handicap accessible parking spaces are provided on the north end of the loop road, allowing easy access to the accessible walkways, buildings, and site features. Also, the size of the mill yard has been reduced, eliminating the need for retaining walls along its south and west sides, and better reflecting a possible historic size. The form of the mill yard was modified to soften the edges.

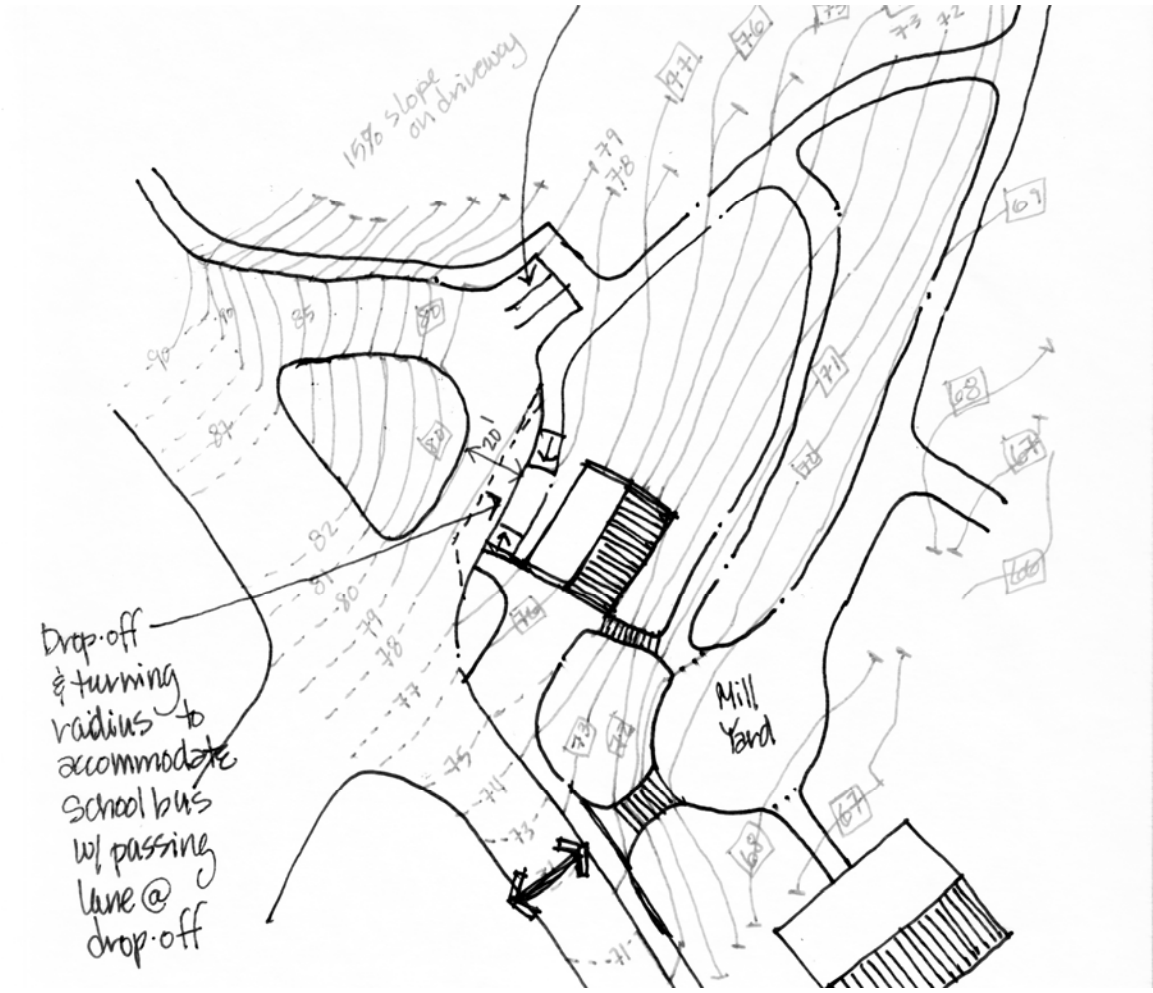

Figure 7- 9: Conceptual Drop-off Design Alternative E, Conceptual Grading.

Alternative F—School bus drop-off loop parallel to Tilden.

Historic Core

This scenario provides a bus drop-off to accommodate one school bus in a loop configuration parallel to Tilden Street. This scenario was rejected because it would require extensive grading and would not provide an optimal sequence for visitors.

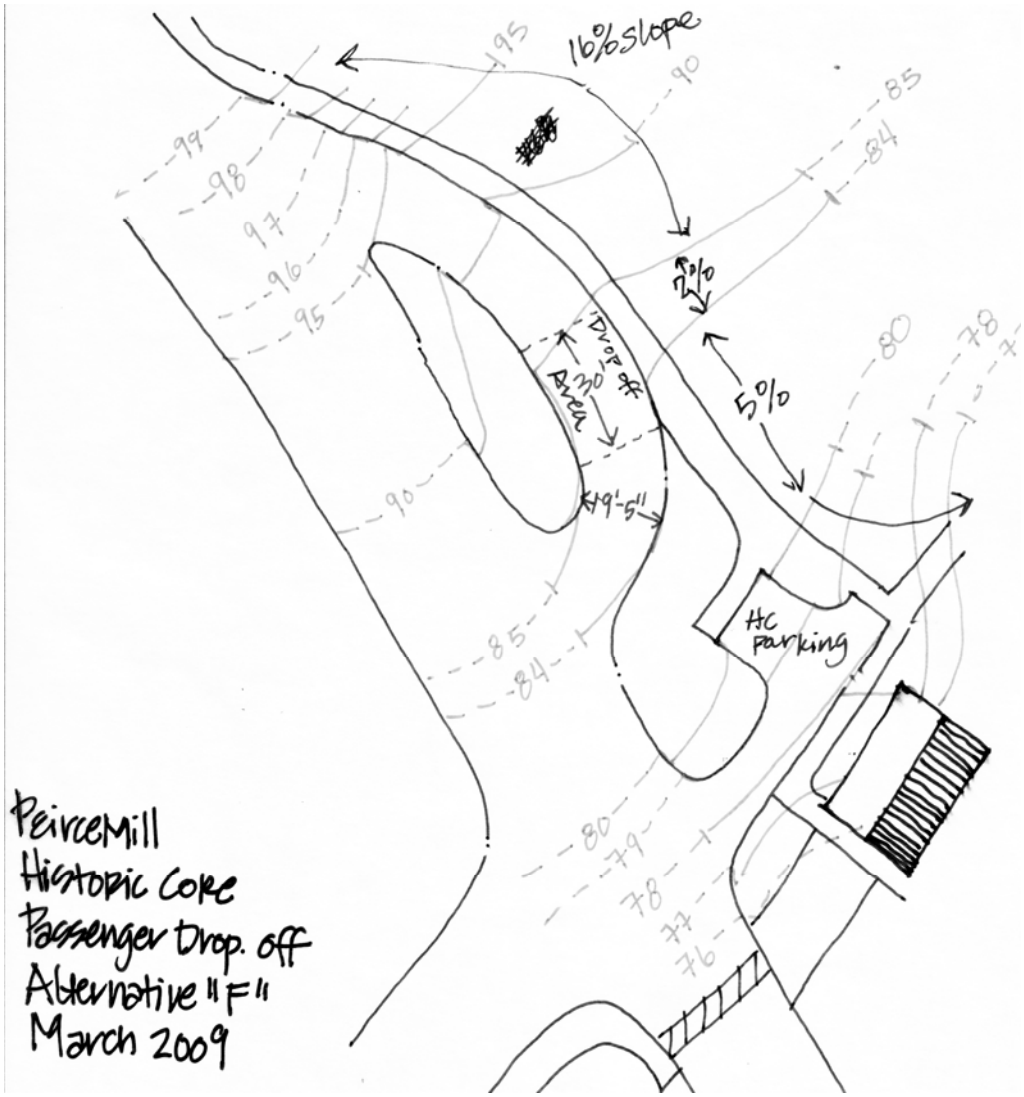

Figure 7- 10: Conceptual Drop-off Design Alternative F, Conceptual Grading.

Alternatives G and H—School bus drop-off on Freedom Springs Road.

Historic Core

Alternatives G and H explore the concept of providing the bus drop-off on Freedom Springs Road. The main difference between the two is that Alternative G, illustrated in Figure 7-11 provides a drop-off area for one school bus and Alternative H, seen in Figure 7-12, provides space for two school busses. After disembarking from the bus, visitors would go across Tilden Street to the Peirce Mill Complex via an accessible pedestrian route. The topography is better suited for pedestrians, as it is much less steep. However, Tilden Street accommodates many vehicles that move quickly with limited sight lines, making it a dangerous crossing location for pedestrians. The underpass at the bridge provides an option for able-bodied visitors, but does not accommodate visitors with mobility impairments. These alternatives were rejected due to concerns about requiring large groups of school children to cross Tilden Street.

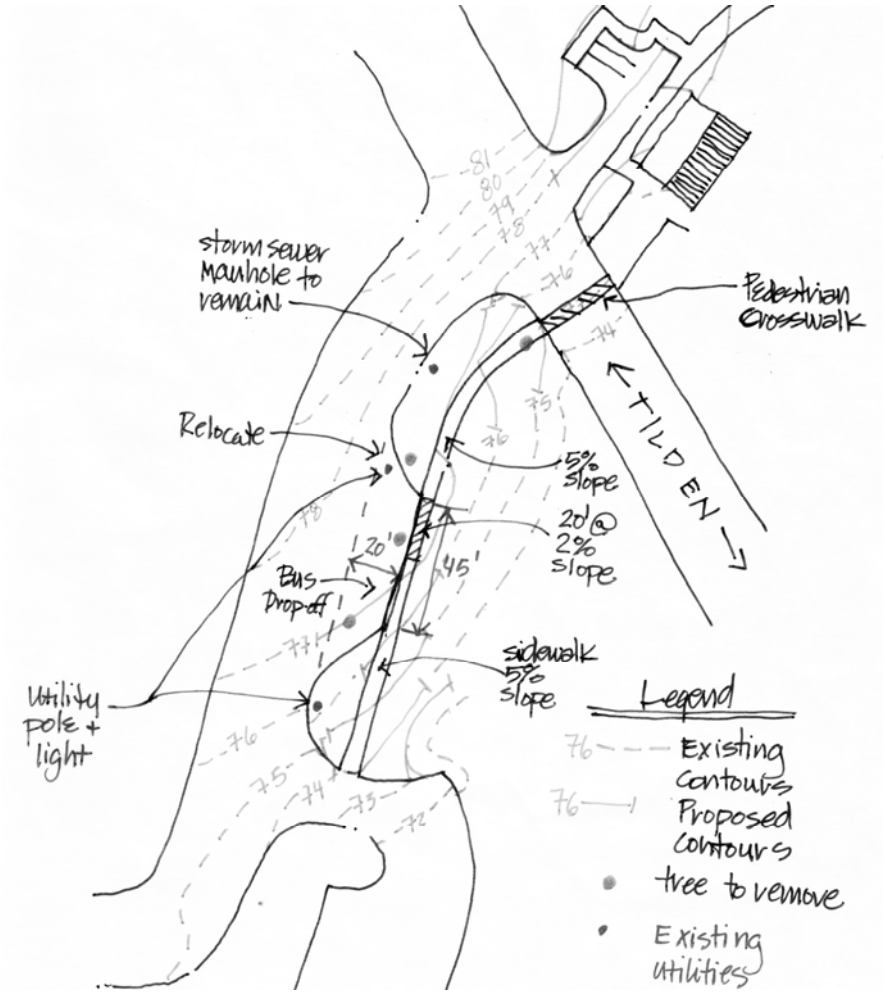

Figure 7- 11: Conceptual Drop-off Design Alternative G, Conceptual Grading.

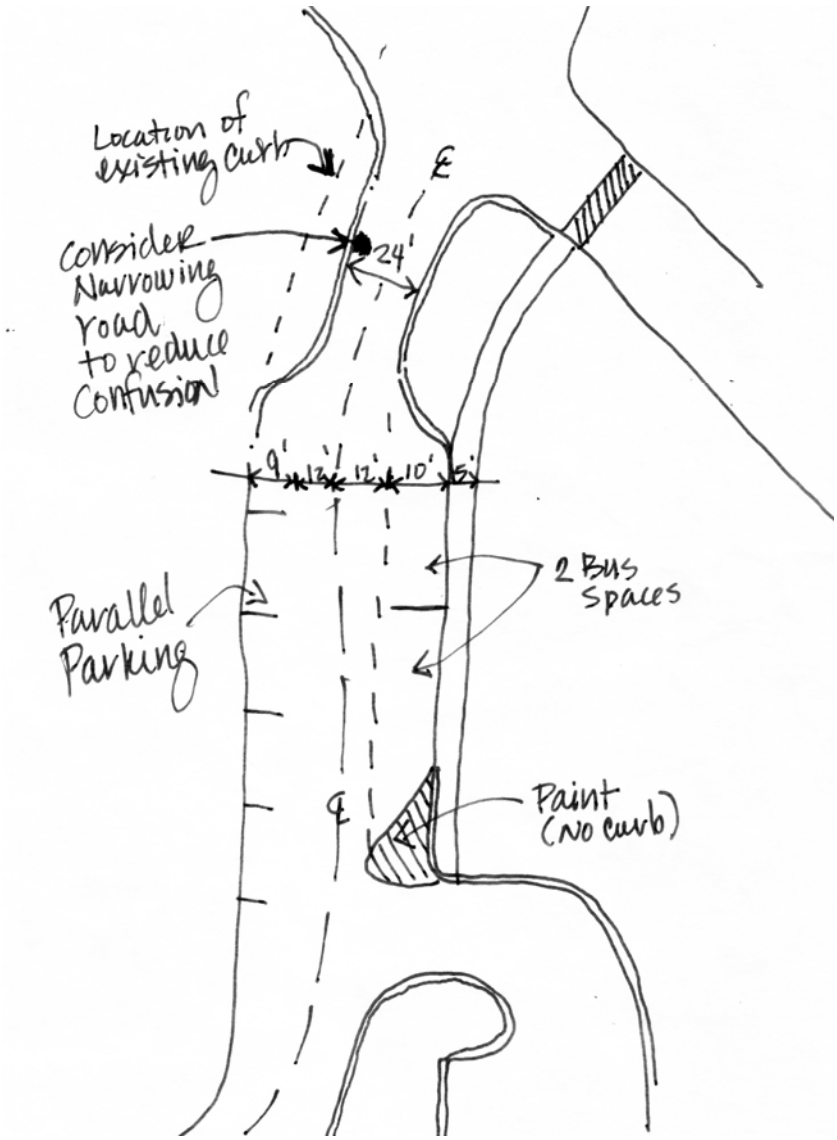

Figure 7- 12: Conceptual Drop-off Design Alternative H.

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