

ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES

HALS No. DC-40

(Rock Creek and Potomac Parkway/Waterside Drive

*Plantanus occidentalis and Fraxinus americana*)

Rock Creek and Potomac Parkway

Reservation No. 360

Waterside Drive Median

Washington

District of Columbia

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN LANDSCAPES SURVEY

National Park Service

U.S. Department of the Interior

1201 I Street NW

Washington, DC 20005

## HISTORIC AMERICAN LANDSCAPES SURVEY

### ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE SYCAMORE AND WHITE ASH TREES (Rock Creek and Potomac Parkway/Waterside Drive *Plantanus occidentalis* and *Fraxinus americana*)

HALS No. DC-40

- Location: Rock Creek and Potomac Parkway, median between northbound and southbound lanes near the Waterside Drive exit and entrance ramps, Washington, D.C.; Lat: 38.912733 Long: -77.053592 (Historic site of Lyons Mill, Google Earth, Simple Cylindrical Projection, WGS84)
- Owner/Manager: U.S. Government, National Park Service
- Significance: The Waterside Drive sycamore and ash trees are significant because of their size, age, and association with the site of Lyons Mill and the design of Rock Creek and Potomac Parkway.
- Author & Discipline: Patti Kuhn, Architectural Historian; David Plakorus, Environmental Scientist, The Louis Berger Group, Inc.
- Date: July 2012
- Project Information: This study is part of an Environmental Assessment for the rehabilitation of Rock Creek and Potomac Parkway in the vicinity of Waterside Drive. The project was initiated to improve traffic flow and to minimize the number of accidents along the Parkway near Waterside Drive. Proposed improvements include a new acceleration lane along Rock Creek and Potomac Parkway where the southbound ramp from Waterside Drive merges. The purpose of this task is to provide HALS mitigation documentation for a group of five witness trees that may be impacted by the realignment of Waterside Drive where it meets the southbound lanes of Rock Creek and Potomac Parkway.

#### PART I. HISTORICAL INFORMATION

These three sycamore and two white ash trees shade a median adjacent to Waterside Drive that was once the location of an eighteenth-century mill, most commonly referred to as Lyons Mill, on Rock Creek in Washington, D.C. (Figure 1). During the planning of Rock Creek and Potomac Parkway, careful attention was taken to avoid the site of the mill. Although the age of these trees is unknown, they may have been present when the mill was extant or could possibly be the offspring of trees that once stood on the mill property. An 1892 United States Coast and Geodetic Survey [USCGS] map overlaid with the current locations of the trees indicates that the three trees clustered in the southeastern portion of the median (two sycamores and a white ash)

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 3**

stand southeast of the mill site (Figure 2). The sycamore and white ash trees located in the western portion of the median stand close to the mill site, along its south and west sides. The diameter breast heights of the trees are as follows (see Figure 1 for location): (1) white ash, 33.5 inches; (2) sycamore, 34.7 inches; (3) sycamore, 59.8 inches; (4) ash, 34.4 inches; (5) sycamore, 40.5 inches.

Lyons Mill was the first and largest of the mills constructed along Rock Creek, built between 1780 and 1813 as a grist, paper, and textile mill. In 1795 Joseph Rowles, Jr. acquired the property and named it Federal Mills. A group of investors, including John Lyons and John Kurtz, administered its operations until it was purchased by Lyons and Kurtz in 1813. The mill flourished during the early nineteenth century as wheat replaced tobacco as a local cash crop. However, a flood and the invention of steam-powered milling equipment and the decline of wheat production caused the mill to cease operations in 1870s or 1880s.<sup>1</sup>

An 1889 description of Rock Creek and its environs in the *Washington Post* gave the following description of Lyons Mill and stated that the mill was still in use at that date:

On the same bank with Kalorama, standing in the white glare of the mid-day sun is Lyons' Mill. The brick in its high walls show it to be an old building. In fact, it was built in 1757 and its rumbling mill-stones have ground many harvests that grew where marble public buildings and palatial homes of fashion now stand. For a long time it was the only mill in the region, and wheat came long distances to be ground here. Even from Virginia, ferrying across the Potomac in broad, flat scows thousands of bushels came to Lyons' Mill. For eighty years it has belonged to two generations of the family. It is still grinding its daily grist, the old-fashioned over-shot wheel being turned by water brought from the dam a quarter of a mile up-stream.<sup>2</sup>

After the establishment of Rock Creek Park in 1889, plans for the Rock Creek and Potomac Parkway emerged and became a principal component of the comprehensive park system for Washington, D.C. Conceived in 1901-1902 by the Senate Park Commission, the new parkway closely followed the ideals of the City Beautiful Movement and linked the Mall and Potomac Park to the National Zoological and Rock Creek parks. When completed in 1936, the parkway became the first in the metropolitan region and one of the earliest in the country.

The 1902 report of the Senate Park Commission, *The Improvement of the Park System of the District of Columbia*, offers vivid imagery of the condition of the lower Rock Creek Valley at the turn of the twentieth century. It emphasized the natural beauty of the lower valley above Q Street

---

<sup>1</sup>Eve Barsoum, *National Register Nomination, Rock Creek and Potomac Parkway* (Washington, D.C.: 2005): 8-3, 8-4.

<sup>2</sup> *Washington Post*, "Historic Rock Creek, The Wild Sylvan Stream that Beautifies Washington", August 18, 1889.

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 4**

as “very attractive” and praised its “sylvan character” that was similar to Rock Creek Park.<sup>3</sup> The Commission of Fine Arts, the successor of the Senate Park Commission, later shared their admiration for the northern section of the lower valley and said, “No words can adequately describe the beauty of this valley in summertime; even in winter there is majesty in the spreading trees.”<sup>4</sup>

Early plans for the Rock Creek and Potomac Parkway included plans to preserve the mill, its historical importance often noted. The presence of sycamore trees in the area was mentioned as part of the mill’s picturesque allure. The 1908 “Report Upon the Improvement of the Valley of Rock Creek from Mass Ave to the Mouth of the Creek” included estimates for improvements to the Rock Creek Valley, including Lyons Mill (Figure 3). The report justified the mill’s retention by stating that, “Lyon’s mill, a historic landmark of rustic beauty, with its fine sycamores, is a treasure in the memory of many of the citizens of Washington who, in their youth, have enjoyed the generous hospitality of the Lyons family, and should not be removed....”<sup>5</sup>

In 1913, the same year that Congress authorized the construction of Rock Creek and Potomac Parkway, Lyons Mill collapsed, leaving only “tottering portions of the north and west wall” and “a mass of debris.”<sup>6</sup> In a sentimental description of the lost mill, the *Washington Post* specifically described the trees:

Out of the Jungle of willows and scrubby trees that grow among this part of Rock Creek rise three magnificent sycamores. No finer specimens of this tree may be found in the District. Two stand off from the south wall of the mill and one to the west of the ruin.<sup>7</sup>

Despite the mill’s collapse, modified plans of the parkway in 1916 avoided the mill site, leaving it “undisturbed in its present quiet and restful state, merely adapting necessary walks and drives to fit natural conditions.”<sup>8</sup> Plans for the Rock Creek and Potomac Parkway underwent additional modifications during the 1920s and 1930s; however, the plans continued to emphasize the preservation of the natural landscape. A 1935 planting plan of the Waterside Drive overpass

---

<sup>3</sup> Charles Moore, ed., *The Improvement of the Park System of the District of Columbia, Report of the Senate Committee on the District of Columbia; Report of the Park Commission, 57<sup>th</sup> Congress, 1<sup>st</sup> Session, Senate Report No. 166* (Washington, D.C.: Government Printing Office, 1902).

<sup>4</sup> Timothy Davis, “Rock Creek and Potomac Parkway, Washington, DC: The Evolution of a Contested Urban Landscape,” *Studies in the History of Gardens and Designed Landscapes* 19, no. 2 (1999): 145.

<sup>5</sup> United States Congress, Senate, “Report Upon Improvement of Valley of Rock Creek, from Massachusetts Avenue to Mouth of the Creek,” 60<sup>th</sup> Congress, 1<sup>st</sup> Session, Senate Document No. 458 (Washington, D.C.: U.S. Government Printing Office, 1908): 8-18.

<sup>6</sup> *Washington Post*, “Lyons Mill Collapses: Old Landmark Near Rock Creek Park Almost Catches Farmer in Falling,” June 29, 1913.

<sup>7</sup> *Ibid.*

<sup>8</sup> *Washington Post*, “Park Link Plan Ready: Secretary McAdoo Gives Details in Rock Creek Improvement,” July 23, 1916.

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 5**

illustrates that existing woods were retained in the median and under planted with small trees and shrubs (Figure 4). The adapted designs once again avoided the mill ruins, leaving a grassy median shaded by several mature trees, including three massive sycamores and two large white ash trees, which are amongst the oldest in the area of the mill site.

## PART II. BIOLOGICAL INFORMATION

### American Sycamore (*Plantanus occidentalis*)

In the United States the native range of the American Sycamore (*Plantanus occidentalis*) is widespread in the eastern part of the country, except in Maine. It occurs as far west as eastern Texas into Nebraska, Iowa, and Wisconsin, and as far south as northwestern Florida. *Plantanus occidentalis* is a deciduous tree belonging to the *Platanaceae* family, characterized by its mottled exfoliating bark. Leaves are typically 4 to 13 inches long, alternate, and are roughly star-shaped with three to five sharp lobes. The blades are often as broad or broader than they are long. Flowers typically bloom in March or April, shortly after the leaves begin coming back. The flowers are small and green, with each blossom containing approximately six to eight petals.<sup>9</sup>

*Plantanus occidentalis* is a fast-growing tree, often reaching 25 to 28 feet after 10 years. Thereafter, the tree grows at a steady pace until it is full grown, typically 50 to 60 feet with a maximum potential of 100 feet. This species grows to a larger diameter than any other North American hardwood and can reach 9 to 12 feet.<sup>10</sup> The trunk is long, straight, and free of branches for approximately half its length. The bark typically exfoliates in patches, leaving area of inner bark exposed, showing a patchwork of browns, yellows, and greens against a background of white. *Plantanus occidentalis* begins producing a seed at six to seven years, with an appreciable number of seeds occurring about 25 years and optimum production between 50 and 200 years, and produces a good seed crop in intervals of two to three years. Age at natural death is typically 250 years but individual trees may reach 500 to 600 years.<sup>11</sup>

*Plantanus occidentalis* is well adapted for use as a shade tree and is used in residential areas and parks or as a street tree. In addition, these trees have typically been used for planting on all types of strip-mined land and on short-rotation plantations for use as rough lumber. The species is common and reaches its largest size on wet, alluvial sand loams or loam soils along streams and in bottom lands. The tree is intolerant to flooding and can die if completely inundated for two or more weeks. Other health concerns of the *Plantanus occidentalis* include insects, primarily the

---

<sup>9</sup> United States Department of Agriculture, Natural Resources Conservation Service, "American Sycamore (*Plantus occidentalis*) Plant Guide," accessed online April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_ploc.pdf](http://plants.usda.gov/plantguide/pdf/cs_ploc.pdf).

<sup>10</sup> University of Texas, Austin, Lady Bird Johnson Wildflower Center, "Plantus occidentalis (American sycamore)," accessed April 25, 2012, at [http://www.wildflower.org/plants/result.php?id\\_plant=PLOC](http://www.wildflower.org/plants/result.php?id_plant=PLOC).

<sup>11</sup> United States Forest Service, "Plantus occidentalis (American Sycamore)," accessed April 25, 2012, at [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/platanus/occidentalis.html](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/platanus/occidentalis.html).

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 6**

sycamore lacebug, the flathead sycamore-heartwood borer, and the sycamore tussock moth, as well as the susceptibility of the species to anthracnose and eastern mistletoe.<sup>12</sup>

White Ash (*Fraxinus americana*)

In the United States the native range of the White Ash (*Fraxinus americana*) stretches across the eastern part of the country, absent only from the outer Atlantic and Gulf coastal plains. It ranges from Maine to Florida and as far west as eastern Texas up into Minnesota. Belonging to the *Oleaceae* family, the deciduous White Ash is the most common and useful native ash. *Fraxinus americana* is characterized by leaves 8 to 12 inches long with leaflets 5 to 9 inches long that are dark green and smooth on top and whitish below. Flowers typically appear with or just before the leaves in April and May and are numerous, very small (1 to 2 inches long), green to purplish, and occur in clusters toward the branch clips.<sup>13</sup>

*Fraxinus americana* is initially a slow-growing tree, often only reaching 5 feet over a period of three to 15 years. Once it reaches 20 years, the tree experiences rapid growth and can grow up to 120 feet tall, but typically reaches 70 to 80 feet in height.<sup>14</sup> The trunk is long, straight, and free of branches for most of its length (except when open grown). The bark is thick and dark gray with a uniform diamond-shaped ridge and furrow pattern.<sup>15</sup> *Fraxinus americana* begins producing a seed at a minimum age of 20 years and produces a good seed crop in intervals of two to three years. Age at natural death is usually typically 100 to 150 years but individual trees may reach 200 years.<sup>16</sup>

*Fraxinus americana* is well adapted for use as a shade tree and is used in residential areas and parks or as a street tree. *Fraxinus americana* is one of the most used trees for everyday purposes and is the most valuable timber tree of the various ashes. The species is valued for the strength, hardness, heavy weight, and elasticity of its wood and is used extensively for tools, baseball bats, furniture, doors, boats, and posts, to name a few.<sup>17</sup> The species is demanding in soil fertility and moisture requirements and grows most commonly on fertile soils with a high nitrogen content and moderate high calcium content; best growth occurs on moderately well drained, sandy to

---

<sup>12</sup> United States Department of Agriculture, Natural Resources Conservation Service, "American Sycamore (*Plantus occidentalis*) Plant Guide," accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_ploc.pdf](http://plants.usda.gov/plantguide/pdf/cs_ploc.pdf).

<sup>13</sup> United States Department of Agriculture, Natural Resources Conservation Service, "White Ash (*Fraxinus americana*) Plant Guide," accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_fram2.pdf](http://plants.usda.gov/plantguide/pdf/cs_fram2.pdf).

<sup>14</sup> University of North Carolina, Plant Information Center, "White Ash (*Fraxinus americana*)," accessed April 25, 2012, at <http://www.ilibio.org/pic/NCTrees/whiteash.htm>.

<sup>15</sup> United States Department of Agriculture, Natural Resources Conservation Service, "White Ash (*Fraxinus americana*) Plant Guide," accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_fram2.pdf](http://plants.usda.gov/plantguide/pdf/cs_fram2.pdf).

<sup>16</sup> United States Forest Service, "Fraxinus americana (White Ash)," accessed April 25, 2012, at [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/fraxinus/americana.html](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/fraxinus/americana.html).

<sup>17</sup> United States Department of Agriculture, Natural Resources Conservation Service, "White Ash (*Fraxinus americana*) Plant Guide," accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_fram2.pdf](http://plants.usda.gov/plantguide/pdf/cs_fram2.pdf).

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 7**

clay loam soils.<sup>18</sup> The primary health concern of *Fraxinus americana* is ash decline typically caused by Mycoplasma-like organisms. *Fraxinus americana* is also sensitive to ozone, sulfur dioxide, nitrous oxides, and associated acid deposition, which may cause lesions on the leaves. The majority of *Fraxinus americana* found with ash decline have occurred in areas with high levels of these gases. In addition, the *Fraxinus americana* is subject to the invasive Emerald Ash Borer.<sup>19</sup>

**SOURCES**

Barsoum, Eve. *National Register Nomination, Rock Creek and Potomac Parkway*. 2005

Davis, Timothy. "Rock Creek and Potomac Parkway, Washington, DC: The Evolution of a Contested Urban Landscape." *Studies in the History of Gardens and Designed Landscapes* 19, no. 2 (1999): 123-158.

Emerald Ash Borer. U.S. Forest Service, Michigan State University,, Purdue University, and Ohio State University. Accessed April 25, 2012, at <http://www.emeraldashborer.info/>.

KCI Technologies, Inc. Base Mapping, Microstation Files. Developed for Rock Creek Park, National Park Service, Reconstruction and Rehabilitation of Beach Drive and Rock Creek and Potomac Parkway from P Street to Calvert Street. KCI Technologies, Sparks, Maryland, 2004.

Moore, Charles, ed. *The Improvement of the Park System of the District of Columbia. Report of the Senate Committee on the District of Columbia; Report of the Park Commission. 57<sup>th</sup> Congress, 1<sup>st</sup> Session. Senate Report No. 166. Washington, D.C.: Government Printing Office, 1902.*

National Park Service. *Rock Creek and Potomac Parkway Section III. Planting Plan at Overpass*. Map No. NCP-91.4-914. On file, Rock Creek Park, Washington, D.C., 1935.

Office of Public Works and Grounds, U.S. Army Corps of Engineers [OPB&G]  
1924 *General Plan for Rock Creek and Potomac Parkway, Section No. 4*. Record Group 66, Project file for Rock Creek and Potomac Parkway, National Archives and Records Administration, College Park, Maryland.

---

<sup>18</sup> United States Forest Service, "Fraxinus americana (White Ash)," accessed April 25, 2012 at [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/fraxinus/americana.html](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/fraxinus/americana.html).

<sup>19</sup> Emerald Ash Borer, U.S. Forest Service, Michigan State University, Purdue University, and Ohio State University, accessed April 25, 2012, at <http://www.emeraldashborer.info/>.

**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 8**

United States Coast and Geodetic Survey [USCGS]. *District of Columbia*. Washington, D.C.: engraved by Evans & Bartle, 1892. Geography and Map Division, Library of Congress, Washington, D.C.

United States Congress, Senate. *Report Upon Improvement of Valley of Rock Creek, from Massachusetts Avenue to Mouth of the Creek*. 60th Congress, 1<sup>st</sup> Session. Senate Document No. 458. Washington, D.C.: U.S. Government Printing Office, 1908.

United States Department of Agriculture, Natural Resources Conservation Service. "American Sycamore (*Plantus occidentalis*) Plant Guide". Accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_ploc.pdf](http://plants.usda.gov/plantguide/pdf/cs_ploc.pdf).

\_\_\_\_\_. "White Ash (*Fraxinus americana*) Plant Guide." Accessed April 25, 2012, at [http://plants.usda.gov/plantguide/pdf/cs\\_fram2.pdf](http://plants.usda.gov/plantguide/pdf/cs_fram2.pdf).

United States Forest Service. "*Fraxinus americana* (White Ash)." Accessed April 25, 2012, at [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/fraxinus/americana.html](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/fraxinus/americana.html)

\_\_\_\_\_. "*Plantus occidentalis* (American Sycamore)." Accessed April 25, 2012, at [http://www.na.fs.fed.us/pubs/silvics\\_manual/volume\\_2/platanus/occidentalis.html](http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/platanus/occidentalis.html).

University of North Carolina, Plant Information Center. "White Ash (*Fraxinus americana*)."  
Accessed April 25, 2012, at <http://www.ibiblio.org/pic/NCTrees/whiteash.htm>.

University of Texas at Austin, Lady Bird Johnson Wildflower Center. *Plantus occidentalis* (American sycamore). Accessed April 25, 2012, at [http://www.wildflower.org/plants/result.php?id\\_plant=PLOC](http://www.wildflower.org/plants/result.php?id_plant=PLOC).

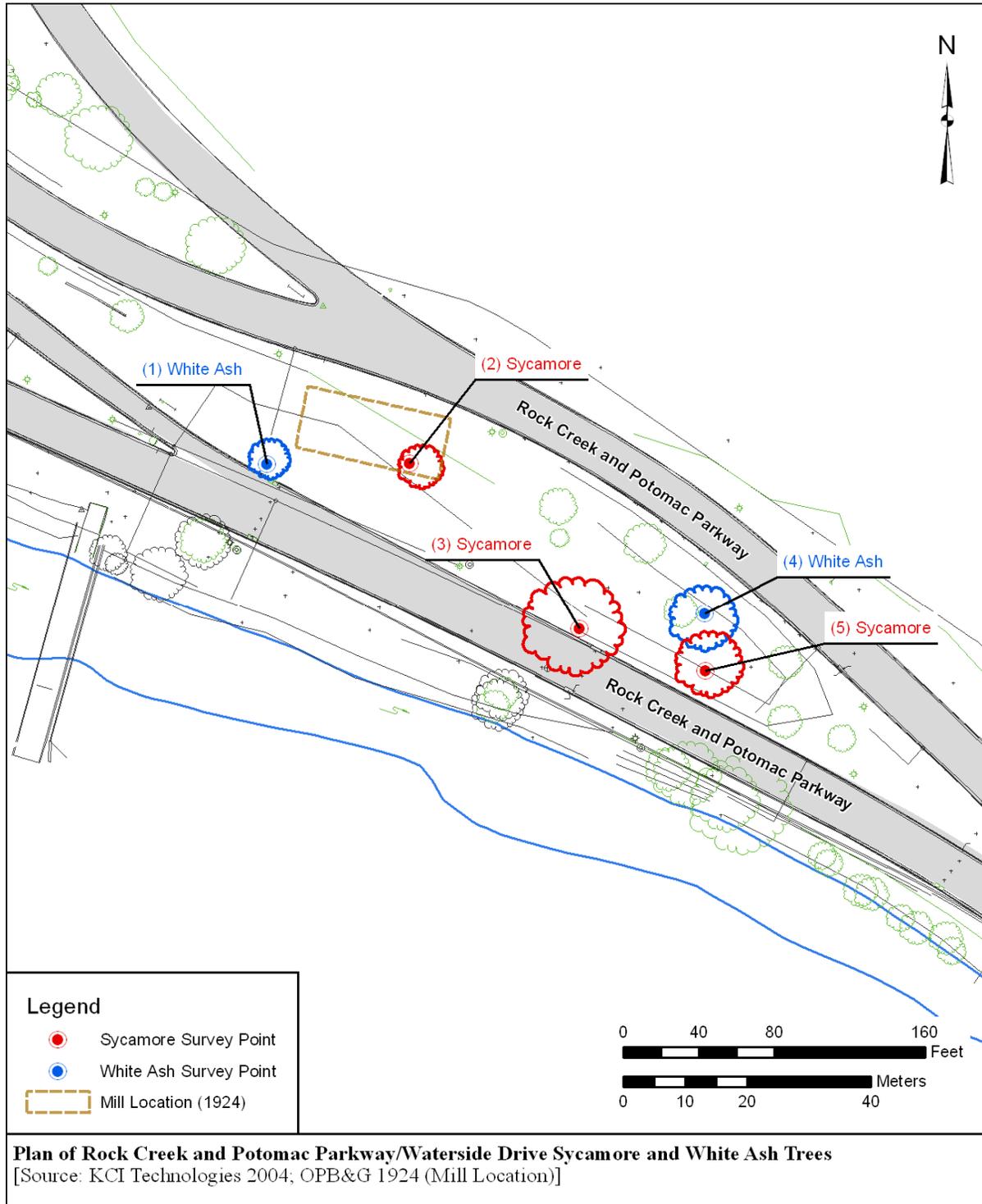
*Washington Post*. "Historic Rock Creek, The wild Sylvan Stream that Beautifies Washington." August 18, 1889.

\_\_\_\_\_. "Lyons Mill Collapses: Old Landmark Near Rock Creek Park Almost Catches Farmer in Falling." June 29, 1913.

\_\_\_\_\_. "Park Link Plan Ready: Secretary McAdoo Gives Details in Rock Creek Improvement." July 23, 1916.

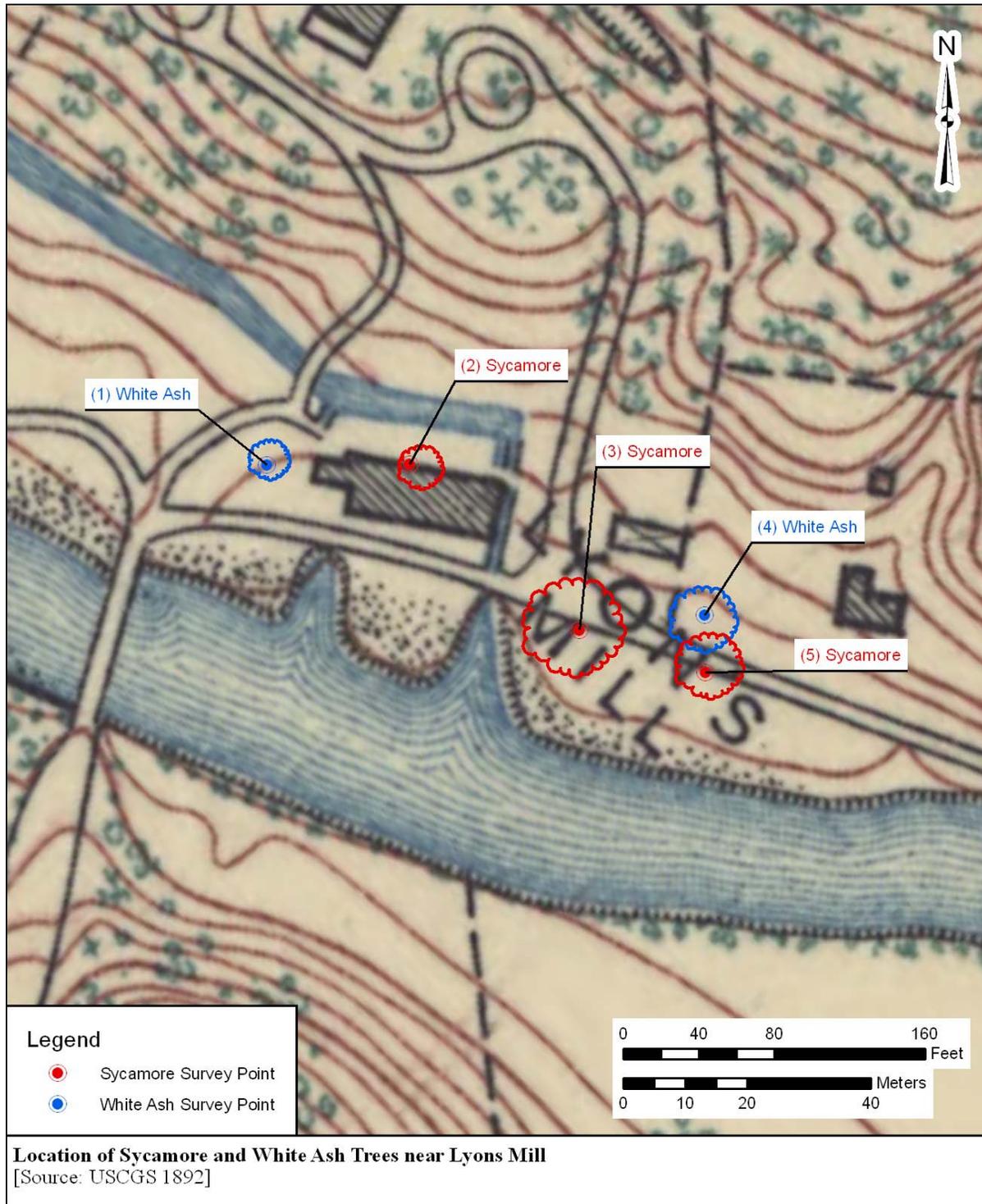
**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 9**

**Figure 1**



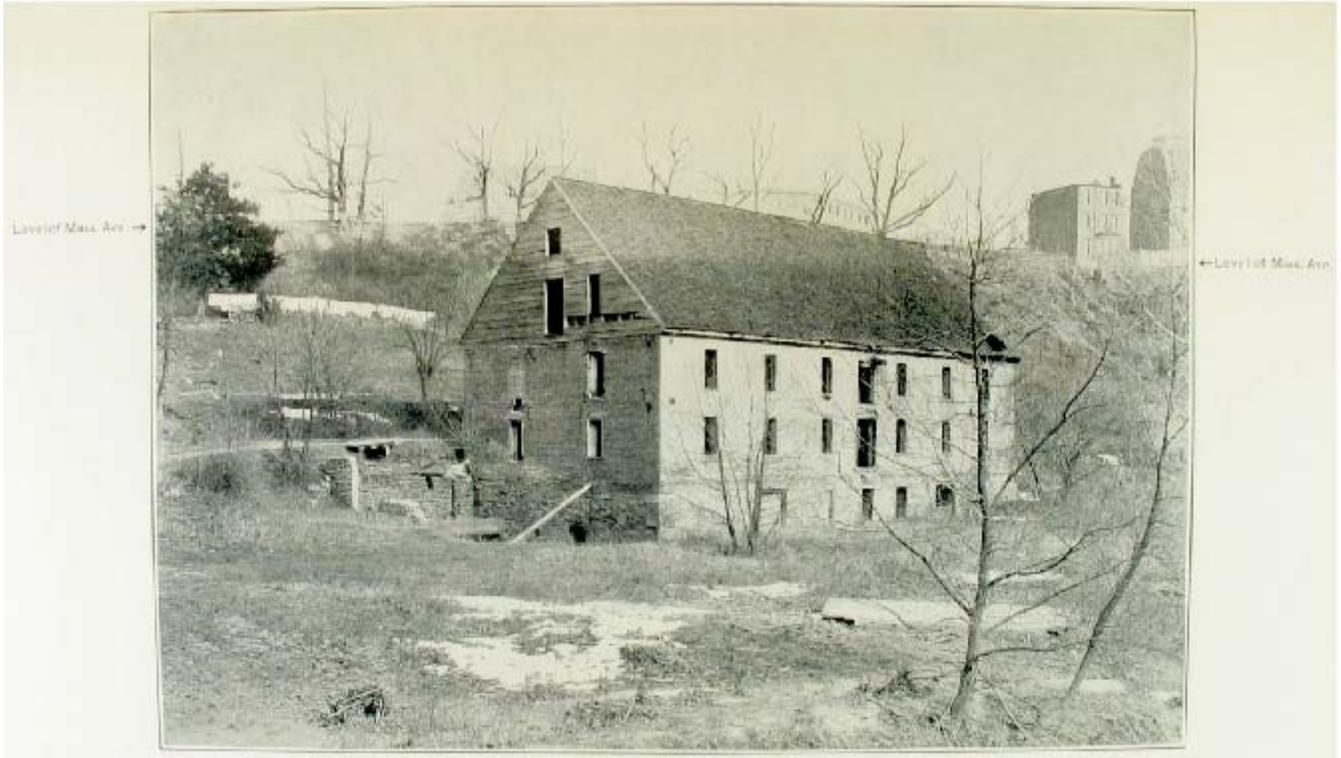
ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 10

Figure 2



**ROCK CREEK AND POTOMAC PARKWAY/WATERSIDE DRIVE  
SYCAMORE AND WHITE ASH TREES  
HALS No. DC-40  
PAGE 11**

**Figure 3**



**LYON'S MILL**

**Historical Photograph of Lyons Mill**  
[Source: U.S. Senate 1908]

